<table>
<thead>
<tr>
<th>UNCLASSIFIED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>AD NUMBER</td>
</tr>
<tr>
<td>AD861886</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>NEW LIMITATION CHANGE</td>
</tr>
<tr>
<td>TO</td>
</tr>
<tr>
<td>Approved for public release, distribution unlimited</td>
</tr>
<tr>
<td>FROM</td>
</tr>
<tr>
<td>Distribution authorized to U.S. Gov’t. agencies and their contractors; Administrative/Operational Use; Oct 1969. Other requests shall be referred to Central Intelligence Agency, Office of Central Reference, 2430 E. Street, NW, Washington, DC 20505.</td>
</tr>
<tr>
<td>AUTHORITY</td>
</tr>
<tr>
<td>CIA ltr, 7 Sep 2004</td>
</tr>
</tbody>
</table>

THIS PAGE IS UNCLASSIFIED
CONSOLIDATED TRANSLATION SURVEY

Number 142

Through 31 October 1969

CENTRAL INTELLIGENCE AGENCY
Washington, D.C. 20505

FOR OFFICIAL USE ONLY

Best Available Copy
## TABLE ON CONTENTS

<table>
<thead>
<tr>
<th>Region</th>
<th>Economic</th>
<th>Political</th>
<th>Military</th>
<th>Sociological</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USSR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>1</td>
<td>8</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eastern Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>16</td>
<td>22</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Western Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>38</td>
<td>29</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Africa</strong></td>
<td></td>
<td>51</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Middle East</strong></td>
<td></td>
<td>34</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Far East</strong></td>
<td></td>
<td>35</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Latin America

Economic
Political
Military
Geographic
Sociological

Scientific

Aeronautics
Agriculture
Astronomy & Astrophysics
Atmospheric Sciences
Behavioral & Social Sciences
Biological & Medical Sciences
Chemistry
Earth Science & Oceanography
Electronics & Electrical Engineering
Energy Conversion (Non-Propulsive)
Materials
Mathematical Sciences
Mechanical, Industrial, Civil & Marine Engineering
Methods & Equipment
Missile Technology
Navigation, Communications, Detection & Countermeasures
Nuclear Science & Technology
Physics
Propulsion & Fuels
Space Technology
Miscellaneous

Information Received on Cover-To-Cover Translations

Index to Authors
This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.
Requests for copies of published projects should be made directly to the designated producing organization.

Addresses of producers are as follows:

ACIC - Aeronautical Chart and Information Center (see USDI)

ACSI - (see OIA)

AEC - Atomic Energy Commission (see USDI)

ACRL Res Lib

Air Force Cambridge Research Laboratories Research Library
Office of Aerospace Research
United States Air Force
Laurence G, Hanscom Field
Bedford, Massachusetts
ATTN: CRMLR

AGU

American Geophysical Union
Suite 506
1145 19th Street, NW
Washington, D.C. 20036

AIP

American Institute of Physics
335 East 45th Street
New York, New York 10017

Amer Math Soc

American Mathematical Society
P.O. Box 6248
Providence, Rhode Island 02904

APL/JHU

Applied Physics Laboratory
The Johns Hopkins University
8621 Georgia Avenue
Silver Spring, Maryland 20910

BISI

British Iron and Steel Industry Translation Service
The Iron and Steel Institute
4 Grosvenor Gardens
London, S.W. 1, England
Central Library
Central Electricity Generating Board
Room 601, Sudbury House
15 Newgate Street
London, E.C. 1, England

Consultants bureau - (see Plenum Press)

CIT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York 10603

DIA

Defense Intelligence Agency
Washington, D.C. 20330

FP

Faraday Press, Incorporated
84 Fifth Avenue
New York, New York 10011

FSTC

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

FTD

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

GSEC - Goddard Space Flight Center (see CFSTI)

HB

Henry Brutcher Technical Translations
P.O. Box 157
Altadena, California 91001

HEW - (see NIH)

IEEE

Institute of Electrical and Electronics Engineers
275 Madison Avenue
New York, New York 10016
Use of Credit in Developing the RSFSR Economy, by N. Zotov, 11 pp.
RUSSIAN, per, Dengi i Kredit, Moscow, No 6, 1969, pp 3-12.
JPRS 48846

Extending Credit Through Special Loan Accounts, by Ye. Litvinov, 12 pp.
RUSSIAN, per, Dengi i Kredit, Moscow, No 6, 1969, pp 23-35.
JPRS 48846

Chuvash Economy Continues to Progress, by N. Zaytsev, 6 pp.
RUSSIAN, per, Dengi i Kredit, Moscow, No 6, 1969, pp 32-48.
JPRS 48846

Utilization of Short-Term Credit in Industry, by R. Olikhova, 7 pp.
RUSSIAN, per, Dengi i Kredit, Moscow, No 6, 1969, pp 52-57.
JPRS 48846

Improvement Proposals Given to Improve Role of Bank Credit, by V. Svyroyeshkin, 11 pp.
RUSSIAN, per, Len' i Kredit, Moscow, July 1969, pp 13-24.
JPRS 48774

Noncash Forms of Payment to be Improved, by D. Sakharov, 5 pp.
RUSSIAN, per, Len' i Kredit, Moscow, July 1969, pp 30-34.
JPRS 48774

Improvement Required in Cash Operations, by A. Zhukov, 5 pp.
RUSSIAN, per, Len' i Kredit, Moscow, July 1969, pp 57-61.
JPRS 48774

RUSSIAN, per, Len' i Kredit, Moscow, July 1969, pp 5-84.
JPRS 48774
JPRS 49261

JPRS 49962

Uzbek Meeting Nakos Production Recommendations, 12 pp.
JPRS 49007

Georgian Finance Minister Outlines Budget Plans, by A. Chirakadze, 8 pp.
JPRS 48924

Budget Use of Greater Moscow Area Analyzed, by M. Zakharov, 11 pp.
JPRS 48924

JPRS 48924

Proposals Made to Raise Use of Scrap Metals, by A. Zhevtyak, 8 pp.
JPRS 48924

Advice Given on Figuring Capital Payments, by A. Miliushichkov, 13 pp.
JPRS 48924

Book Reviewed on Role of Working Capital, by S. Barnogolts, 9 pp.
JPRS 48924

Maternity Benefits for Female Kolkhoz Members, 6 pp.
JPRS 49006

People's Control Checks Production Efficiency, by P. Kovanov, 12 pp.
RUSSIAN, pub. Ekonomicheskaya Gazeta, Moscow, No 37, Sept 1969, pp 4-5.
JPRS 49264

Scientist Discusses Multiple Strip Coal Uses, by L. Semenov, 5 pp.
JPRS 48791

Installment Buying Stimulates Retail Trade, by V. Il'in, S. Koryagin, 5 pp.
JPRS 48923

JPRS 48795

Use of PERT in USSR Gosplan Described, by Yu. N. Samolhin, 8 pp.
JPRS 48752

Construction Expanding in Eastern USSR, by V. Zaklushny, 10 pp.
RUSSIAN, pub. Stroitel'stvo, Moscow, July 1969, pp 11-16.
JPRS 48756

Profit Related to Concentration of Production, by L. Mirushina, 8 pp.
JPRS 48756

JPRS 48822
RUSSIAN, per, Finansy SSSR, Moscow, Jul 1969, pp 94-96.
JPRS 48924

RUSSIAN, per, Finansy SSSR, Moscow, No 8, Aug 1969, pp 12-16.
JPRS 48681

RUSSIAN, per, Finansy SSSR, Moscow, No 8, Aug 1969, pp 33-38.
JPRS 48681

Long-Term Credit for Capital Investments Urged, by V. Bukhina, 10 pp.
RUSSIAN, per, Finansy SSSR, Moscow, Aug 1969, pp 47-52.
JPRS 48977

Financial Problems of Economic Reform Called For, by L. Kadyshev, 8 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 8, 1969, pp 84-87.
JPRS 48681

New Prices Increase Gas-Refining Plants' Profits, by P. F. Dubovoy, 10 pp.
RUSSIAN, per, Gazovaya Promyshlennost', Moscow, No 8, 1969, pp 40-44.
JPRS 48994

Perfected the Organization of Work and Wages in the Opencast Mines of Noril'sk Concern, by V. F. Protasov, G. N. Bogkarev.
RUSSIAN, per, Gorny Zhurnal, No 6, 1969, pp 10-11.
CPGTI 77 56-568017

Decrease Extend Shchekino Experiment in Industry, 31 pp.
RUSSIAN, per, Gosvystantvoenny Komitet Soveta Ministrov SSSR po Voprosam Truda i Zarabotnoy platy Komitet, Moscow, No 7, 1969, pp 6-25.
JPRS 48754

Ways of Improving Transport Services Discussed, by B. Ivaizantsev, 8 pp.
RUSSIAN, per, Gudok, Moscow, 2 Sept 1969, pp 1-2.
JPRS 48977

JPRS 48908

RUSSIAN, np, Investitsiya, Moscow, 14 Aug 1969, p 5.
JPRS 48907

Distribution of Kolkhoz Income Discussed, by V. Feduk, 5 pp.
RUSSIAN, np, Investitsiya, Moscow, 4 Sept 1969, p 3.
JPRS 49006

JPRS 48990

RUSSIAN, per, Kommunist, Vil'nyus, No 8, 1969, pp 28-31.
JPRS 48901

RUSSIAN, per, Kommunist, Vil'nyus, No 11, Jul 1969, pp 23-35.
JPRS 48880

RUSSIAN, per, Kommunist, Vil'nyus, No 7, 1969, pp 98-52.
JPRS 48752

Technical Progress Held Key to Productivity, by F. Kul'ts, 9 pp.
RUSSIAN, per, Kommunist, Vil'nyus, No 8, 1969, pp 52-58.
JPRS 48752
Expanding International Production Cooperation, by V. Lavrikov, 9 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 7, 1969, pp 78-84.
JPRS 48926

Initiatives for Economic Effectiveness Discussed, by L. Zhuchenko, 3 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 5, 1969, pp 11-16.
JPRS 48927

Adjusting Economic Reform to Industry Advocated, by V. Slopykh, 10 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 5, 1969, pp 19-23.
JPRS 48930

Incentive to Raise Labor Productivity Analyzed, by V. Slopykh, 10 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 6, 1969, pp 36-41.
JPRS 49026

Labor Productivity Key to Estimating Manpower, by S. Kiperman, 5 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 8, 1969, pp 43-47.
JPRS 49026

Terms for Material Expenditures Discussed, by V. Serlok, 7 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 3, 1969, pp 44-47.
JPRS 49026

Means of Regulating Rural Migration Proposed, by L. Balochnikova, 12 pp.
RUSSIA, per, Planovoye khozvaystvo, Moscow, no 8, 1969, pp 70-77.
JPRS 49225

Labor Productivity Must Exceed Wage Increases, by A. Vyzalev, 5 pp.
RUSSIA, per, Pravda, 31 July 1969, p 2.
JPRS 48761

Kolkhoz Chairman Should Delegate Authority, by K. Lozdev, S. Mikhaylov, 5 pp.
RUSSIA, per, Pravda, Moscow, 26 Aug 1969, p 2.
JPRS 48922

Fishing Problems in Karelian ASSR Reviewed, by L. Ryzhkov, 5 pp.
RUSSIA, per, Pravda, Moscow, 3 Sept 1969, p 2.
JPRS 49096

RUSSIA, per, Pravda, Kiev, 16 Aug 1969, p 2.
JPRS 48901

Schools for Training Skilled Workers Discussed, by V. Sharapov, 8 pp.
RUSSIA, per, Professional'no-tekhnicheskoye obrazovaniye, Moscow, no 6, 1969, pp 10-11.
JPRS 48962

Profitability and Economic Indices Discussed, by A. Khazaryan, 6 pp.
RUSSIA, per, Promyshlennost' Armenii, Yerevan, no 3, 1969, pp 47-54.
JPRS 48833

RUSSIA, per, Promyshlennost' Belorussi, Minsk, June 1969, pp 40-44.
JPRS 48793

RUSSIA, per, Promyshlennost' Belorussi, Minsk, No 7, 1969, pp 52-55.
JPRS 48989

Some Results of Economic Reform Analyzed, by A. A. Smirnov, 8 pp.
RUSSIA, per, Promyshlennost' Belorussi, Minsk, No 7, 1969, pp 56-60.
JPRS 48814

RUSSIA, per, Promyshlennost' Belorussi, Minsk, No 7, 1969, pp 16-17.
JPRS 48814

Belorussian Minister of Finance Reviews Budget, by V. I. Shatilo, 8 pp.
JPRS 48924
Ways to Provide Adequate Water Supply Traced, by Umneva, Blak, 7 pp.
JPRS 48929

Economic Incentives for High Quality Work Necessary, by A. Serebrov, 5 pp.
JPRS 48831

JPRS 48801

RUSSIA, np, Sotsialisticheskaya Industriya, Moscow, 21 Aug 1969, p 2.
JPRS 48762

Soviet News: Coal Cuts Staff, Increases Output, by I. Divnichev, 6 pp.
RUSSIA, np, Sotsialisticheskaya Industriya, Moscow, 1 Aug 1967, T 7.
JPRS 48736

RUSSIA, np, Sotsialisticheskaya Industriya, Moscow, June 1969, pp 27-32.
JPRS 48701

JPRS 48671

RUSSIA, np, Sotsialisticheskaya Trud, Moscow, June 1969, pp 40-44.
JPRS 48631

Three Revisions for Mechanized Farm Teams, by I. Orlovsky, 21 pp.
RUSSIA, np, Sotsialisticheskaya Trud, Moscow, June 1967, pp 45-57.
JPRS 48611

Ways to Prevent Personnel Turnover Proposed, by A. Aparin, 14 pp.
RUSSIA, np, Sotsialisticheskaya Trud, Moscow, June 1969, pp 67-70.
JPRS 48561

RUSSIA, np, Sotsialisticheskaya Trud, Moscow, July 1969, pp 97-104.
JPRS 48526

The Tallinn Ship-repair Workers Are Preparing, by A. A. Vulkov, 8 pp.
DIA IN LIPPER

JPRS 48901

Contemporary Principles of International Regulation of Open Sea Fishing, by A.A. Voilov, 6 pp.
JUSI/BBCY TT 69-590'0

JPRS 48908

RUSSIA, np, Sovietskaya UdSSR, Moscow, 29 July 1969, p 2.
JPRS 48796

UdSSR Local Industry Output Assessed, by S. Lapikas, 5 pp.
RUSSIA, np, Sovietskaya UdSSR, Moscow, 11 Sept 1969, p 2.
JPRS 49016

Decree on Training Skilled Workers Discussed, by A. A. Bulganov, 20 pp.
RUSSIA, np, Sovietskaya Pedagogika, Moscow, July 1969, pp 3-17.
JPRS 48962
Evolution of Italian Citrus Fruit Consumption, by M. Shvatkin, 6 pp.
RUSSIAN, per, Sovetskaya Torgovlya, Moscow, No 6, 1969, pp 30-39.
JPRS 48794

Inventory Problems Influence Retail Sales, by I. Isitovskiy, 5 pp.
RUSSIAN, per, Sovetskaya Torgovlya, Moscow, 19 Aug 1969, p 4.
JPRS 48805

Industrial Policy Aims to Grow in Next 10-12 Years, by A. Argunyan, 6 pp.
RUSSIAN, per, Pravda, Moscow, 2 Sept 1969, p 2.
JPRS 48904

RUSSIAN, per, Sovetskaya Torgovlya, Moscow, Jul 1969, pp 31-33.
JPRS 48832

RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 7, 1969, pp 120-130.
JPRS 48736

Modernized Textile Machinery Increases Efficiency, by N. Zilberov, 9 pp.
RUSSIAN, per, Tekhnologiya i Organizatsiya, Moscow, June 1969, pp 8-12.
JPRS 48796

JPRS 48851

CMEA Member Currency Exchange Examined, by V. Karpich, 13 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 7, 1969, pp 97-108.
JPRS 48841

Improvements in Sectorial Planning Analyzed, by V. Chernyavskiy, 14 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, July 1969, pp 86-96.
JPRS 48736

RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 7, 1969, pp 120-130.
JPRS 48841
Inter-Allied Labor Cooperation Grows Stronger, by
G. Maksharev, 14 pp.
JPRS 48818

Scientific Principles of Demography Revisited, by
Y. Kazanov, 1 pp.
JPRS 48818

Anti-Japanese Borderline Relations, Dignal-66, by
JPRS 48818

Scene Before Assessed in Georgian SSR, by
I. Nikoladze, 2 pp.
GEORGIA, pub. Sina djustica, Tbilisi, 8 July 1969, p 1.
JPRS 48819

Tr. Transportation: Its Service to the
People, by
JPRS 48818

The New Appearance of the Cities of the Ukraine. by
JPRS 48818

The Soviet and Lithuanian Economy of Belorussia in
1969-70, by
JPRS 48818

Development of a Friendly Russia, Economy of
Azerbaijan, by
JPRS 48818

Development of Automobile Transportation in the
Socialist Union, by
JPRS 48818

In the Halls of Power (Part 1), by
JPRS 48818

The Communist Movement Has Entered a Period of
JPRS 48818

The Policy of Peace and Friendship Between
Peoples, 7 pp.
JPRS 48818

On the Standard of Work in the Party Apparatus,
by A. Voss, 15 pp.
JPRS 48818

The Ideological and Political Education of
Student Youth, by A. Shibelev, 13 pp.
JPRS 48818
Axiology and Its Bourgeois Interpreters, by S. Popov, 12 pp.
RUSSIAN, per, Kommunist, Moscow, No 11, Jul 1969, pp 92-101.
JPRS 49813

To Struggle Against the Ideological Diversions of Socialism's Enemies, by S. Tsavign, 14 pp.
RUSSIAN, per, Kommunist, Moscow, No 11, Jul 1969, pp 102-112.
JPRS 49813

Book on First Marxist Organizations in Poland, by A. Medvedev, 5 pp.
RUSSIAN, per, Kommunist, Moscow, No 11, Jul 1969, pp 125-127.
JPRS 49813

Suggestions for Improving Komsomol Work Given, by F. Ketkova, 1 pp.
RUSSIAN, per, Kommunist Belorussii, Minsk, Aug 1969, p 37-38.
JPRS 49011

Party Faces Important Tasks in Countryside, 10 pp.
RUSSIAN, per, agropromstroy bylatyi, Idag, July 1969, pp 70-82.
JPRS 48750

Mediterranean Ships Need Extra Political Work, by N. Zhuravlev, 8 pp.
RUSSIAN, per, Kommunist Vooruzennykh Sil, Moscow, No 15, Aug 1969, pp 49-53.
JPRS 48842

Imperialism Condemned as Cause of World War II, by P. Derevyanko, 9 pp.
RUSSIAN, per, Kommunist Vooruzennykh Sil, Moscow, No 17, Sept 1969, pp 17-24.
JPRS 49013

Deputy Civil Aviation Minister Interviewed, 5 pp.
JPRS 49723

Individual Soldier Remains Primary Hero, by V. Shalunovskiy, 7 pp.
JPRS 49413

JPRS 48857

RUSSIAN, per, Kommunist Vooruzennykh Sil, Moscow, No 17, Sept 1969, pp 37-44.
JPRS 49013

JPRS 48857

RUSSIAN, per, Partivnaya Zhizn', Moscow, No 16, Aug 1969, pp 41-45.
JPRS 49013

Party Annual Reports, Elections Discussed, 7 pp.
RUSSIAN, per, Partivnaya Zhizn', Moscow, No 17, Sept 1969, pp 3-7.
JPRS 49013
Airborne landing, Korean - An Important Means of Army Support.
RUSSIAN, np, Izvestiya, Dec, pp 83-86.
DIA IN 1235-69

RUSSIAN, np, Izvestiya, Moscow, 2 Sept 1969, p 4.
JPRS 48930

Tank's Future as Combat Weapon Considered, by V. Golitsyn, 6 pp.
RUSSIAN, np, Izvestiya, Moscow, 16 Sept 1969, pp 1-3.
JPRS 48993

Some Civil Defense Problems of Chemical Enterprises, O. Pashin, 12 pp.
JPRS 48942

Imperialism Cited as Prime Cause of Wars, by D. Kazakov, 11 pp.
JPRS 48942

Party Development in the Armed Forces Analyzed, by V. Kolychev, 12 pp.
JPRS 48942

Marshal Leonov Recalls Khalkhin-Gol Fighting, by A. Leonov, 7 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, Aug 1969, pp 31-36.
JPRS 48942

Service Rules Listed for Draftees, 6 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, Aug 1969, pp 83-86.
JPRS 48942

New Military Books Reviewed, 6 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow, No 15, Aug 1969, pp 90-92.
JPRS 48942

Missile Firing Range.
RUSSIAN, np, Krasnaya Zvezda
DIA IN 1235-69

Consulting General Kajunovskii.
RUSSIAN, np, Krasnaya Zvezda, 14, 189, Aug 1969
DIA IN 1235-69

Leaders Underscore Officer's Authority, by N. Babynin, 5 pp.
JPRS 48975

Officer's Outlook Must Transcend Military Field, by V. Arkhipov, 9 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 26 July 1969, p 2.
JPRS 48975

proper Officer-Soldier Relationship discussed, by V. Guborov, 8 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 30 July 1969, p 2.
JPRS 48975

Training Aboard Missile Cruiser 'Groznuy' Described, by Capt Savichev, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 2 Aug 1969, p 3.
JPRS 48975

Young Officer Finds Happiness in Duty Assignment, by L. Swirodov, 5 pp.
JPRS 48910

JPRS 48910

RUSSIAN, np, Krasnaya Zvezda, Moscow, 8 Aug 1969, p 2.
JPRS 48887

JPRS 48887
Military Political Organizers Praised and United, by V. Semen'ev, 6 pp.
JPRS 49037

JPRS 48950

Missile Cruiser 'Dzerzhinsk' Daily Routine Discussed, by G. Savichev, 10 pp.
JPRS 48951

Sold Initiative by Combat Pilots Required, by A. Bukreiev, 7 pp.
JPRS 48952

Physical Training for Pilots Emphasized, by G. Gisin, 6 pp.
JPRS 48953

JPRS 49013

Officers Scored for Poor Performance of Duties, by I. Tokovlenko, 6 pp.
JPRS 48959

Readers Comment on Proper Officer Behavior, 8 pp.
JPRS 48959

Psychological Effects of Surprise Alert, Investigated, by V. Dsynow, 9 pp.
JPRS 48959
Life at Mountain-Top Radar Station Described, by A. Sylino, I. Anisim, 15 pp. 
JPRS 48958

Airborne Officers School Candidates Described, by A. Prokoff'yev, 5 pp. 
JPRS 48887

Romantic Nature of Officer Service Debated, by V. Kazarks'ky, 7 pp. 
JPRS 48950

Authority of Naval Commanders Discussed, by A. Shidelev, 5 pp. 
RUSSIAN, np, Krasnaya Zvezda, Moscow, 30 Aug 1969, p 2. 
JPRS 48958

Far East Campaign Recounted by General Ivanov, 6 pp. 
RUSSIAN, np, Krasnaya Zvezda, Moscow, 2 Sept 1969, p 4. 
JPRS 48938

Violations of Uniform Regulations Criticized, by V. Simonov, 5 pp. 
RUSSIAN, np, Krasnaya Zvezda, Moscow, 3 Sept 1969, p 2. 
JPRS 48938

RUSSIAN, np, Krasnaya Zvezda, Moscow, 6 Sept 1969, p 2. 
JPRS 48938

Youth Warned Against Foreign Political Intrigue, by L. Filchenko, 5 pp. 
JPRS 48887

RUSSIAN, np, Meteor Izucheniya, 151 pp, 1968. 
*AASI-J-73584 
*FTO-MT-23-180-70
Importance of Military Discipline Emphasized, by N. Sayunko, 6 pp.
JPRS 48985

AIR/P&D/HT-23-1329-68

JPRS 48985

RUSSIAN, per, Voyennoe Znaniya, Moscow, No 7, Jul 1969, pp 34-49.
JPRS 48984

RUSSIAN, per, Voyennye Znaniya, Moscow, No 8, Aug 1969, pp 3-14.
JPRS 48985

RUSSIAN, per, Voyennye Znaniya, Moscow, No 8, Aug 1969, pp 13-14.
JPRS 48985

Creation of Non-To Civil Defense Headquarters, by A. Glubokov, 5 pp.
JPRS 48985

Civil Defense Role of Party Committee Indicated, by A. Filimonov, 6 pp.
RUSSIAN, per, Voyennye Znaniya, Moscow, No 8, Aug 1969, pp 15-17.
JPRS 48985

JPRS 48985

Role of Civil Defense Units in Natural Disasters, by N. Sayunko, 6 pp.
JPRS 48985

Preparation of Students for Military Service, by V. Kadyrov, 7 pp.
RUSSIAN, per, Voyennye Znaniya, Moscow, No 6, Aug 1969, pp 32-33.
JPRS 48985

JPRS 48985

RUSSIAN, per, Voyennye Znaniya, Moscow, No 8, Aug 1969, pp 34-49.
JPRS 48985

RUSSIAN, per, Voyennye Znaniya, Moscow, No 8, Aug 1969, pp 40-41.
JPRS 48985

Anti-aircraft Rocket Forces and Anti-aircraft Artillery, by V. P. Askerov.
RUSSIAN, bk, Zentnyye Raketynye Voyska i Zentnyye Artillerya, 1960.
*JACR-4-739*
*JPRC-HT-23-217-70*

Russian Marines: A Reality.
DUTCH, per, Marinboek, No 2, Mar. 1969
DIA Lc: 4190-69

Sociological

RUSSIAN, per, Kommunist, Moscow, No 11, Jul 1969, pp 115-125.
JPRS 48618

JPRS 48533

Merits and Weaknesses of Sci/Art Theater Weighed, by Yuriy Zuekov, 6 pp.
JPRS 48857
RUSSIAN, per, Narodnoe Obrazovaniye, Moscow, July 1969, pp 121-123.
JPRS 48357

Departure of Youth From Countryside Cited, by A. Lovt'yarov, 7 pp.
RUSSIAN, np, Pravda, Moscow, 14 Aug 1969, p 2.
JPRS 48962

Migration of Youth to Cities Discussed, by A. Lovt'yarov, 5 pp.
JPRS 48962

New Decree on Vocational Training, by A. A. Bul'gakov, 6 pp.
RUSSIAN, per, Professial'no-Technicheskoе Obrazovaniye, Moscow, July 1969, pp 1-2.
JPRS 48887

Evening Correspondence Courses Need Attention, 5 pp.
JPRS 48857

All-Union Conference on Vocational Training Held, 29 pp.
RUSSIAN, per, Shkola i Proizvodstvo, Moscow, No 8, 1969, pp 62-69.
JPRS 48857

JPRS 48857

Three Problems in Staffing Rural Clubs Discussed, by I. Dolgov, 5 pp.
RUSSIAN, np, Sovetskaya Kultura, Moscow, 9 Sept 1969, p 2.
JPRS 489013

Goals of Education in Lithuania Reviewed, by R. Gedvilas, 6 pp.
LITUANIAN, np, Sovetskaya Lita, Vil'nyus, 31 Aug 1969, p 1.
JPRS 48762

Interest in the Teacher's Profession Studied, by A. Belyazeva, 12 pp.
RUSSIAN, per, Sovetskaya Podgroda, Moscow, July 1969, pp 101-104.
JPRS 49062

ALI/PID/AT-23-1462-68 Vol 1: 222

ALI/PID/AT-23-1462-68 Vol 2: 222

RUSSIAN, np, Tруд, Moscow, 17 Aug 1969, p 1.
JPRS 48594

Minister of Education Discusses New School Year, by K. A. Prokof'ev, 7 pp.
RUSSIAN, per, Uchitel'skaya Gazeta, Moscow, 30 Aug 1969, pp 1-2.
JPRS 49013

RUSSIAN, per, Uchitel'skaya Gazeta, Moscow, 30 Aug 1969, p 2.
JPRS 49013

JPRS 48857

How to Keep Young Trainees at Their Specialties, by S. Grachev, 5 pp.
JPRS 48901

Need for National Universities Stressed, by L. Shvets, 6 pp.
UKRAINIAN, np, Patymenta, Kiev, 10 July 1969, p 2.
JPRS 48758
Joint Decree on Income, Prices Issued, 7 pp.
JPRS 48770

CBNA Cooperation in Standardization Reviewed,
by Yu. Kostilev, 8 pp.
BULGARIAN, per, Internatsionalizatsiya i Standartizatsiya, Sofia, May 1969, p 1-5.
JPRS 48792

Output, Exports of Food Industry Surveyed, by
Iliya Ignatov, 9 pp.
JPRS 48827

Economic Ties with Arab Countries Reviewed,
by Ima Siljanov, 6 pp.
BULGARIAN, per, Vynshina Turgoviya, Sofia, No 6, 1969, pp 6-8.
JPRS 48827

Developments in Light Industry Outlined, by
Marin Kralev, 6 pp.
JPRS 48736

Bulgarian Trade with Socialist Nations Reviewed,
by Dobri Alekstev, 11 pp.
JPRS 49008

Bulgarian Scientific-Technical Aid Surveyed,
by Ognyan Tikhomirov, 8 pp.
JPRS 49008

New Statistical, Accounting Regulations Prepared,
by Vitezslav Stary, 6 pp.
CZECH, per, Ekonomika Zemodielstvi, Prague, Aug 1969, pp 246-247.
JPRS 43969

Detailed Information Given on Federal Budget,
by J. Toman, 6 pp.
JPRS 48176
Slovak economy as Represented in Foreign Trade, by Vladimir Valach, 7 pp. CZECH, pp, Hospodarske noviny, Prague, 25 July 1969, p 11. JPRS 48736


Economists Discuss Problems of Small Business, by Jaroslav Harnsl, Jiri Adamec, 9 pp. CZECH, per, Hospodarske noviny, Prague, 15 Aug 1969, p 7. JPRS 48688

General Trends in Bloc Economic Systems Outlined, by Jaroslav Cipek, 7 pp. CZECH, per, Moderni Revizni, Prague, No 6, Jun 1969, pp 36-40. JPRS 48615

Ways of Curing Economic Ills Discussed, by Vladimir Sadlec, Hiroslav Koudelka, 14 pp. CZECH, per, Nova Mysl, Prague, July 1969, pp 847-857. JPRS 48956

Economic Relations with CEMA Countries Discussed, by Jan Tatalcek, 9 pp. CZECH, per, Nova Mysl, Prague, No 8, Aug 1969, pp 330-343. JPRS 48956

Foundations of Economic Management System Examined, by Viliam Kerner, 10 pp. CZECH, np, Tribuna, Prague, 3 Sept 1969, p 11. JPRS 48956

Problems of how to Judge Economic Effectiveness of the Danube-Elbe River System. CZECH, per, Vodni Hospodarstvi, 1968 DIA LN 1040-69

Japan Develops Trade with Socialist Countries, by V. Havelka, 8 pp. CZECH, per, Zahranioti obchod, Prague, June 1969, pp 17-13. JPRS 48747

Investment Units Exported to Developing Countries, by Zdenek Krajci, 7 pp. CZECH, per, Zahranioti obchod, Prague, June 1969, pp 23-26. JPRS 48794

New CEMA Delivery Conditions Established, by Jaroslav Rzicka, 9 pp. CZECH, per, Zahranioti obchod, Prague, July 1969, pp 3-5. JPRS 48737

Plant Directors Stress Economic Deficiencies, by Ota Ahnert, 8 pp. CZECH, per, Zivot Strany, Prague, 13 Aug 1969, pp 8-9. JPRS 48692


Frozen Fish - A market with Own Potential. GERMAN, per Allgemeine Fischwirtschaftszeitung, Vol 21 no 27 Sept 6 pp 14, 1969 *USDI/BCF TT 69-52077

How Important is Frozen Fish for the Hamburg Fishing Industry, GERMAN, per, Allgemeine Fischwirtschaftszeitung, Vol 21 no 27 Sept 6, pp 14 ,1969 *USDI/BCF TT 69-52078


Conditions of GDR Private Industry Assessed, by Hannsjorg Back, 6 pp. GERMAN, per, Deutschland Archiv, Cologne, Jul 1969, pp 718-722. JPRS 48815
JPRS 48811

JPRS 48850

Investments and Relations of Partners Discussed, by Walter Werner, 7 pp.
JPRS 48892

JPRS 48873

GERMAN, per, Wochenbericht, West Berlin, 10 Jul 1969, pp 177-192.
JPRS 49003

JPRS 49008

Structure, Regulation of Trade Discussed, by Sándor Galits, 5 pp.
JPRS 48736

Functions of Capital Equipment Enterprises Cited, by Ivan Bereidik, 6 pp.
JPRS 48792

Reform Affects Industrial Research Institutes, by Antal Bertos, 5 pp.
JPRS 48877

Officials Give Reasons for Drop in Productivity, 9 pp.
HUNGARIAN, per, Figyelo, Budapest, No 34, 20 Aug 1969, pp 1, 6.
JPRS 48873

Function of Foreign-Trade Organization Described, by Dienes Huszt, 5 pp.
JPRS 48892

Status, Functions of TEK Enterprises Reviewed, by Ferenc Levardi, 5 pp.
HUNGARIAN, np, Figyelo, Budapest, 10 Sep 1969, pp 1, 3.
JPRS 49008

Light Industry Productivity Lag Discussed, by Laszlo Foldi, 5 pp.
JPRS 48969

Purpose of Income Regulating System Discussed, by László Antal, Peter Nedgyessy, 7 pp.
HUNGARIAN, np, Figyelo, Budapest, 10 Sep 1969, p 4.
JPRS 49000

Minister, Plant Leaders Review Productivity Lag, by Ferenc Levardi, 5 pp.
JPRS 48990
JPRS 48736

HUNGARIAN, per, Közlekedési Szemle, Budapest, July-Aug 1969, pp 393-406.
JPRS 48736

The Tasks of Shipping for the Year 1969.
HUNGARIAN, per, Közlekedési Szemle, Apr 1969, pp 227-236.
DIA 4 121-43

Transportation Statistics from the Statistical Yearbook of the Danube Committee.
HUNGARIAN, per, Közlekedési Szemle, June 1969.
DIA 4 124-70

HUNGARIAN, per, Közlekedési Szemle, June 1969, pp 240-249.
DIA 4 1144-49

Results on Survey of Workers' Attitudes Reported, by István Gállag, 9 pp.
HUNGARIAN, np, Nagyvárad, Budapest, 2, 3, 4 Sept 1969, p 4.
JPRS 48939

Procedures of Economic Research Institute Given, by László Németh, 10 pp.
HUNGARIAN, per, Statisztikai Szemle, Budapest, Jul 1969, pp 750-764.
JPRS 48832

Expansion of Reduced Working Time Discussed, by István Lókény, 18 pp.
HUNGARIAN, per, Szaküzverési Tapúranyok, Budapest, Aug-Sept 1969, pp 2-8.
JPRS 48948

HUNGARIAN, per, Tarasadalmi Szemle, Budapest, Jul-Aug 1969, pp 74-82.
JPRS 48911

JPRS 48737

State Fishery Enterprises in Poland.
By A. Balicki
POLISH, per, Goszodarka Rybna, Vol 21, No 7 (217), pp 4-6, 1969
*U.S. GPO: 69-00048

Inland Fishery Co-ops in Their 25th Year.
By K. Golabek.
POLISH, per, Goszodarka Rybna, Vol 21 No 7 (217), pp 7-8, 1969
*U.S. GPO: 69-00048

Operations of 'Zeto' in Gdynia Described, by Józef Palkiewicz, 6 pp.
JPRS 48933

POLISH, per, Monitor Polski, Warsaw, 25 July 1969, pp 577-582.
JPRS 48838

Resolution on Industrial Workers' Bonuses, 19 pp.
POLISH, per, Monitor Polski, Warsaw, 29 July 1969, pp 581-596.
JPRS 48886

JPRS 48873

The Expansion of Railroads in Poland During the 1946-1966 Twenty Year Period.
POLISH, per, Przegląd Kolejowy Przemysł, No 12, 1968, pp 18-19.
DIA 4 201-73

New Planning System for Shipping Outlined, by Zygmunt Sojka, 8 pp.
POLISH, per, Technika i Goszodarka Rybna, Gdańsk, Jul 1969, pp 289-291.
JPRS 48890
Consequences of Rapid Population Growth in Poland, by Janek Klements, 6 pp.
JPRS 48635

Koceklik Stresses Importance of Railroads, 3 pp.
JPRS 48636

State Farm Economic Accounting Appraised, by Tadeusz Aichik, 22 pp.
JPRS 48637

In proper emphasis placed on shipbuilding industry, by Wlodek Dzialaki, 9 pp.
JPRS 48638

JPRS 48639

Specialization Problems of Kielec Plant Aired, by Jacek Szador, 5 pp.
JPRS 48640

JPRS 48641

JPRS 48642

JPRS 48643

Effects of Social Funds on Rural Hope Analyzed, by Mihai N. Ciuian, 12 pp.
JPRS 48644

JPRS 48645

Road, Water and Air Transport prospects, by Ion Balciu, 5 pp.
ROMANIAI, per. Lupta din Creda, Bucharest, 19 July 1969, pp 1, 3.
JPRS 48646

Economic Effect of Scientific Research Analyzed, by Teodor Frates, 14 pp.
JPRS 48647

JPRS 48648

ROMANIAI, per. Industria, Bucharest, 29 June 1969, pp 1, 3.
JPRS 48649

Progress of Chemical Industry Noted, by Alexandru Gamba, 5 pp.
ROMANIAI, np. Miega, Bucharest, 1 Aug 1969, pp 1, 5.
JPRS 48650

JPRS 48651

Work Norms Call for Constant Improvement, by Cornel Cunada, 13 pp.
JPRS 48652
RUMANIA, per, Probleme Economice, Bucharest, Mar 1969, pp 37-46.
JPRS 48755

International Socialist Cooperation Develops,
by N. N. Constantinescu, 17 pp.
RUMANIA, per, Probleme Economice, Bucharest, Mar 1969, pp 50-56.
JPRS 48755

Value relationships in Foreign Trade,
by Dimitru H. Lazardenu, 11 pp.
JPRS 48755

Economic problems of Emerging Nations discussed,
15 pp.
RUMANIA, per, Probleme Economice, Bucharest, Apr 1969, pp 123-131.
JPRS 48755

Better Output Planning proposed in Light Industry,
by C. Sevianescu, 12 pp.
RUMANIA, per, Probleme Economice, Bucharest, Apr 1969, pp 11-21.
JPRS 48755

Electric Power Policy Results, Arms Described,
by Cetavian Rozea, 17 pp.
RUMANIA, per, Probleme Economice, Bucharest, June 1969, pp 32-33.
JPRS 48757

Provision, Future Mining Industry Sketched,
by Mihai Abram, 20 pp.
RUMANIA, per, Probleme Economice, Bucharest, June 1969, pp 34-40.
JPRS 48757

Trends in Housing Construction Analyzed, by
Amdrii Ancararu, 13 pp.
RUMANIA, per, Probleme Economice, Bucharest, June 1969, pp 47-53.
JPRS 48757

Handicraft Coops' function in Economy Described,
by Ilie Alco, 17 pp.
RUMANIA, per, Probleme Economice, Bucharest, June 1969, pp 54-60.
JPRS 48757

Future Use of Chemicals in Cooperatives Described,
by N. Zaharescu, 11 pp.
RUMANIA, per, Probleme Economice, Bucharest, May-Jun 1969, pp 5-11.
JPRS 48757

Development of Romanian Foreign Trade Described,
by Titus Cristureanu, 6 pp.
JPRS 48996
Distribution of National Income Presented, 10 pp.
JPRS 48933

Banking System's Organization, Function Reviewed,
by I. Ivašković, 15 pp.
SERBO-CROATIAN, per, Financijalne, Belgrade, July-Aug 1969, pp 357-358.
JPRS 48956

Linear Convertibility Problems Discussed, by
Ivo Ivašković, 15 pp.
JPRS 48956

Port of Zagreb on Sava River Discussed, by
Jakob Beza, 12 pp.
SERBO-CROATIAN, per, Gradinovin, Zagreb, Jun 1969, pp 211-213.
JPRS 48962

Post-Reform Price Stabilization Process Reviewed,
by Dusan Vuković, 13 pp.
SERBO-CROATIAN, per, Juzoslovenski pregled, Belgrade, Apr 1969, pp 151-156.
JPRS 48992

New Republic Income Tax Provisions Detailed,
by Miroslav Dujmović, 13 pp.
SERBO-CROATIAN, per, Juzoslovenski pregled, Belgrade, Apr 1969, pp 157-162.
JPRS 48904

Chemical Industry's Growth Reviewed, Forecast,
by Miodrag Milosevic, 15 pp.
SERBO-CROATIAN, per, Juzoslovenski pregled, Belgrade, Apr 1969, pp 163-172.
JPRS 48904

Economic Plan for 1971-1975 Formulated, by
Vuko Kocenica, 9 pp.
CRNA I, per, Pravda pregled, Belgrade, 11 Aug 1969, pp 1, 4.
JPRS 48930

Sources of Current Assets in Economy Analyzed,
by Radoslav Vukmanović, 6 pp.
JPRS 48757
JPRS 4667


JPRS 46975

Supreme Court Issues Guideline for Arrests, 15 pp.


JPRS 48776

Order on Title to Land of State Plants Issued, 9 pp.


JPRS 48773

Kater on Socialistic Internationalism, Nationalism, by Hermann Kater, 8 pp.


JPRS 48776

Seigewasser Addresses Protestant Church Leaders, by Hans Seigewasser, 8 pp.


JPRS 48973

Role of State Organs in National Defense Described, 9 pp.

GERMARCH, PER, Neues Deutschland, East Berlin, 10 Aug 1969, p. 5.

JPRS 48826


JPRS 48990

Kriegel, Kynel, Speaker Speeches Published, 10 pp.


JPRS 48893

West German Assesses GDR Reform Results, by Peter Hitzscherling, 33 pp.


JPRS 48969
Tourist Traffic to From GDR Rises Slowly, 9 pp.
JPRS 48990

JPRS 48882

Differing Viewpoints on Marxist Sociology Noted, by Ferenc Gorgenyi, 13 pp.
JPRS 48811

HUNGARIAN, per, Valosag, Budapest, July 1969, pp 34-40.
JPRS 48776

HUNGARIAN, per, Valosag, Budapest, July 1969, pp 34-40.
JPRS 48776

Resolution Defines Activities of Main Organs, 6 pp.
JPRS 48990

POLISH, per, Dziennik Ustaw, Warsaw, 11 July 1969, pp 276-277.
JPRS 48790

Student Aid Regulated by Ministerial Ordinance, 13 pp.
POLISH, per, Monitor Polski, Warsaw, 9 July 1969, pp 305-315.
JPRS 48862

Interagency Coordination Policy Defined, 5 pp.
POLISH, per, Monitor Polski, Warsaw, 10 July 1969, pp 522-523.
JPRS 48882

Spychalski Writes on Party Role in Poland, by Marian Spychalski, 21 pp.
JPRS 48846

Edward Gierek Speaks at Silesian Rally, 12 pp.
POLISH, per, Trybuna Ludu, Warsaw, 1 Sept 1969, p 3.
JPRS 48990

JPRS 46828

Crisis Facing Polish Literature Described, by Jerzy Niesiekowski, 5 pp.
JPRS 48990

Intellectuals Discuss Sovereignty, Socialist State, 43 pp.
RUMANIAN, per, Anele de Istorie, Bucharest, No 3, May-Jun 1969, pp 90-121.
JPRS 48875

JPRS 48611
JPRS 48990

ROMANIAN, per, Jurnalul Invatamantului, Bucharest, 16 Aug 1969, p 3.
JPRS 48990

Legal Treatment of Licensing Examined, by V. Luncu, 12 pp.
ROMANIAN, per, Inventit si Inovatii, Bucharest, No 5, May 1969, pp 175-180.
JPRS 48973

Human Aspect of Socialist Democracy Discussed, by Irina Fedulescu, 15 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, Apr 1969, pp 3-15.
JPRS 48976

friendship with Socialist States Stressed, by Constantin Florea, 12 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, No 7, July 1969, pp 41-54.
JPRS 48976

JPRS 48990

Independent, Free National Theater Proposed, by Dusan Xhajkovic, 6 pp.
SERB-CROATIAN, per, Srbija (Reflektor), Belgrade, 11 Aug 1969, pp 21-22.
JPRS 48990

JPRS 48976

Federal Assembly Affirms Equality of Languages, 6 pp.
SERB-CROATIAN, per, Juzglovenski Pregled, Belgrade, Apr 1969, pp 147-150.
JPRS 48976

SLOVAK, per, Zeltzonti Doprava a Technika, Bratislava, No 5, 1969, pp 151-165.
JPRS 48997

Strategy, Tactics of Lightest Forces Analyzed, by Oto Locak, 18 pp.
SLOVAK, per, Inovacija, 11, 12, 16 Sept 1969.
JPRS 48965

Electronic Warfare in a General Conflict.
GERMAN, per, Allgemeine Schweiz Militarzeit, No 124, 1956, pp 786-787.
*ACSI-J-474-12
ID 2004000169

First Rocket-Start.
GERMAN, per, Allgemeine Schweiz Militarzeit, No 5, 1969.
DIA LN 147-70

Moscow's Seapower in the Mediterranean.
GERMAN, per, Atlantische Welt, No 5, 1969.
DIA LN 1130-69

Camouflage Against Radar Reconnaissance.
Camouflage Against Infrared Reconnaissance.
Camouflage Against Infra-red Photography, by G. Hartmen.
*ACSI-J-7411
ID 2204009069

Electronic "Countermeasure" and "Counter-Countermeasures", by G. W. Buehler.
GERMAN, per, Flugzeug Und Technik, No 12, 1965, pp 301-304.
*ACSI-J-7416
ID 2204009569

GERMAN, per, Marine Rundschau, No 1, 1969, pp 16-33.
Dept of Navy, NIC Trans 2892
The Naval Forces in the Soviet-Occupied Zone of Germany 1945-1958 (II),
Dept. of Navy 81614 Trans 28619

High Combat Readiness of Armor Requires Good Care, 5 pp.
GERMAN, per, Militaertechnik, East Berlin, Jul 1969, pp 296-299.
JPRS 46854

Protection Against Modern Means of Reconnaissance,
by Djordje Neman.
GERMAN, per, Truppenpraxis, 1968, pp 105-109.
*ACSI-J-7457
ID 3314008962

Electronic Protective Measure, by P. Steffensenn.
GERMAN, per, Truppenpraxis, 1968, pp 105-109.
*ACSI-J-7447
ID 3334408861

Construction Engineer and Soldier.
GERMAN, per, Volksarmee, 1969.
DIA LI 32-70

Antiaircraft Defense - Yesterday, Today and Tomorrow, by T. Obornick.
POLISH, per, Przeglad Wojsk Ladowych.
*ACSI-J-7412

Defence by Artillery, by I. Szczesny.
POLISH, per, Przeglad Wojsk Ladowych, pp 19-27.
*ACSI-J-7416

The Planning and Organization of Schooling for Antiaircraft Evasive Maneuvers, by J. Jarmul.
POLISH, per, Przeglad Wojsk Ladowych, No 11, 1969, pp 67-77.
*ACSI-J-7437

Officials Comment on Civil Defense Matters, 16 pp.
JPRS 46922

Training Youth for Military Described, by Ion Lonseu, 5 pp.
JPRS 46915

Position of Soviet Forces in Czechoslovakia,
by A. M. Mayorov, 6 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No 6, Jun 1969, p 1.
JPRS 48327

Operation of Czechoslovak Firing Range Cited,
by V. Kryaz'kov, 5 pp.
RUSSIAN, per, Starshina Serzhant, Moscow, No 6, 1969, p 9.
JPRS 48947

Double-Purpose Civil Defense Shelter Areas,
by Ratmir Tivic, 5 pp.
SERBO-CROATIAN, per, Konjina, Belgrade, Jul-Aug 1969, pp 46-47.
JPRS 48946

Work Organizations to Regulate National Defense,
by Dragoljub Aleksić, 10 pp.
SERBO-CROATIAN, per, Privredni Fregled,
JPRS 48831

Regulating National Defense in Opstinas,
by A. Jetrovici, 10 pp.
SERBO-CROATIAN, per, Savremen Praktik, Belgrade, No 239, 11 Aug 1969, pp 11-12.
JPRS 48826

Social Change in the Intelligence Circuit, by
Vasil Ivanov, 6 pp.
BULGARIAN, per, Narodna Kultura, Sofia, 16 Aug 1969, pp 1, 2.
JPRS 48945
Order Lists Documents for University Study, 8 pp.
GERMAN, per, Gesetzeblatt der Deutschen Demokratischen Republik, East Berlin, Part 2, No 64, 1 Aug 1969, pp 417-420.
JPRS 48826

JPRS 48826

Geissmann Presents Future Higher Education Tasks, 6 pp.
JPRS 48913

JPRS 48931

Newspaper Surveys Prostitution in Poland, by Stanislaw Syczski, 17 pp.
JPRS 48913

Writers Criticized for Lack of Style, by Ion Carstoiu, 6 pp.
ROMANIAN, per, Conta de Clasa, Bucharest, No 7, Jul 1969, pp 101-105.
JPRS 48811

Juvenile Delinquency Discussed in Sibiu County, 11 pp.
ROMANIAN, per, Scintila Tineretului, Bucharest, 4 sept 1969, pp 1-3.
JPRS 485550

SERBI-CROATIAN, per, Borba (Reflektor), Belgrade, 11 Aug 1969, pp 18-20.
JPRS 48795C

SERBI-CROATIAN, per, Stanovnistvo, Belgrade, No 3-4, July-Dec 1968, pp 201-215.
JPRS 48826

Juvenile Delinquency Led to Belgrade's Urbanization, by Aleksandra Todorovic, 9 pp.
SERBI-CROATIAN, per, Stanovnistvo, Belgrade, No 3-4, July-Dec 1968, pp 239-240.
JPRS 48826

Birth, Death, Marriage and Divorce Rates Reviewed, by Nikola Iasevic, 20 pp.
SERBI-CROATIAN, per, Stanovnistvo, Belgrade, No 3-4, July-Dec 1968, pp 242-253.
JPRS 48826

Decision Made on 1968 National Highway Plan.
DUTCH, per, Wegens, Mar 1969.
DIA in 4876-70

The World Bank Agrees to Finance a Portion of the Expenses for Preparing the Suez Canal for the Transit of Oillers of 250,000 DWT Fully Loaded.
FRENCH, per, Journal de la Marine Marchande, 17 April 1969.
DIA in 1253-49

JPRS 48790 1967.

DIA in 138-70

Lean from the World Bank for the Development of the Production of Electricity.
FRENCH, per, L'Usine Nouvelle, No 17, 27 Apr 1967.
DIA in 67-70
Port Problems.
PORTUGUESE, per, Noticias de Portugal, 8 Feb 1969.
DIA LN 1226-69

River Company of Courn Improvements in Marajo. Porto Alegre has a Regular Passenger Ship Line. Illness - Coorals Finished Breadwater.
PORTUGUESE, per, Porto e Navios, No 116, Apr 1969.
DIA LN 1226-69

Rio Grande do Sul-Ports Will be Transformed into Mixed Economy Societies.
Santo - Studies for the Expansion of the Port, Made de Deus Channel Under the Responsibility of the Port of Rio.
Teber is Inaugurated.
PORTUGUESE, per, Porto e Navios, No 116, Apr 1969.
DIA LN 1226-69

Political

Finnish C: Urged to Fight Imperialism, by Arne Karlmen, 5 pp.
JPRS 48732

JPRS 48572

Youth Working for the Revolution - President Baudouin's Address to the School for Non-commissioned Officers at Hilda.
FRENCH, per, La Defense, No 72, May 1969.
DIA LN 1180-69

CP Calls Moscow Conference Highly Successful, by Leon Foiit, 6 pp.
JPRS 48952

Communist Discusses Problems of.editing Marx, by Emile Bottigelli, 11 pp.
JPRS 48970

Possible PCI Participation in Government Aired, 9 pp.
ITALIAN, per, L'Espresso, Rome, 7 Sept 1969, pp 5-6.
JPRS 48917

JPRS 48917

International Workers Movement Problems Reviewed, by Lucio Colletti, 9 pp.
JPRS 48917

Problems of Communist Movement Discussed, by Paolo Spriano, 6 pp.
ITALIAN, per, Rinascita, Rome, No 37, 19 Sept 1969, pp 7-8.
JPRS 48972

Enter 'Government Area,' Amendola Counsels PCI, by Giorgio Amendola, 6 pp.
JPRS 48852
Western Europe
Political

Work Program of Norwegian Communist Party, 43 pp.
JPRS 46972

Norwegian C.I. States Position on Economic Issues,
5 pp.
SWEDISH, per, Portsmouth, U.S.A., 1-6 Sept 1969,
pp 2-3.
JPRS 46972

Roger Garaudy Interviewed in Yugoslavia, by
Vukosje Balotovic, 3 pp.
SERBO-CROATIAN, per, Kommunist, Belgrade, 4 Sept
JPRS 46970

Swedish C.I. Still Divided on Czechoslovakia, 7 pp.
JPRS 46972

Notes to Twenty-Second CP Congress Discussed,
by Hilding Hapberg, 5 pp.
SWEDISH, per, Forsvarets Forsvarsutredning, 6 Sept
1969, pp 4-5.
JPRS 43012

Leftist Communist Party in Time of Crisis, by
Gosta Kempe, 5 pp.
Svenska, per, Forsvarets Forsvarsutredning, 9 Sept
JPRS 43012

Leftist Youth League Plans Attack on CP, 5 pp.
Svenska, per, Ny Iagt, Stockholm, 11-17 Sept 1969,
p 11.
JPRS 46372

Military

The Main Battle Tank 70.
DUTCH, per, de Militaire Spectator, No 10,
*ACSI 4-74-50

Review - The Northern Anti-Aircraft Defense Weapons
Industry, Across three Decades.
FINNISH, per, Sotilas Aikakaus Lehti, No 7,
1969, pp 63-68.
DIA LN 35-70

Some Aspects of Electronic Warfare.
FINNISH, per, Jottilaisten Tekniikka, Vol 19,
pp 115-130.
DIA LN 35-70

Attend Speed Unions - May Not.
FINNISH, per, Yleisradio Mittelaja, 7 May
DIA LN 37-70

The New Challenge and Our Old Mobilization
System.
NORWEGIAN, per, Forsvarets Bygde, 1969,
pp 71-72.
DIA LN 37-70

Women in the Defense Forces.
NORWEGIAN, per, Forsvarets Bygde, No 139,
May 1969, pp 199-200.
DIA LN 209-70

Some Thoughts on the 1970's Air Defense.
SWEDISH, per, Arrener-Tidskrift, No 26,
1969.
DIA LN 37-70
ARABIC, per, Al-Majahid, Algiers, 10 Aug 1969, pp 3-5.
JPRS 48817

JPRS 48874

Brasilia Economic Development Surveyed, 7 pp.
FRENCH, per, Monde, Dakar, Sept 1969, pp 30, 38, 39, 44.
JPRS 48906

Overall Economic Situation Satisfactory, 5 pp.
JPRS 48860

Budget for Year 1969 Registers Deficit, 5 pp.
JPRS 48866

FRENCH, per, l'Evolution et les Finances des pays Arabes, Beirut, Jun 1969, pp 79-104.
JPRS 48916

Belgian Policy on Aid to Burundi Examined, by Conrad Reuss, 16 pp.
JPRS 48863

Maritime Transportation in Madagascar Discussed, 5 pp.
JPRS 48874

AFRICA
Economy

FRENCH, per, Le Moniteur Africain, Dakar, 7 Aug 1969, p 5.
JPRS 48831

Cameroon Economy Viewed with Optimism, 6 pp.
JPRS 48876

Economic Outlooks Good But Future Toned Marbled, 6 pp.
JPRS 48966

Forty-two Concarneau Tuna Vessels and Six Refrigerated Vessels Participate in the African Tuna Fishery.
FRENCH, per, La Peche Maritime, Vol 48, No 1095, June 1969, pp 419.
JPRS 69-52058

JPRS 69-52060

FRENCH, per, La Presse du Cameroun, Douala, 9-10 Aug 1969, pp 1-3.
JPRS 48866

FRENCH, per, Statute published by Chamber of Commerce and Industry of Kinshasa, 26 Jun 1969, pp 23.
JPRS 48817

Finance Minister Explains Amended Tax Laws, 10 pp.
JPRS 48831

Planning Minister Discusses Country's Economy, by bernabe Kanyaruguru, 7 pp.
JPRS 48931
Smuggling, Tax Evasion, Fraud Examined, by Joel Lacupper, 55 pp.
JPRS 48831

...Leader Addresses New Central Union, by...m-oa x'l,~idaion Adote~ hv ...[omuggln, lrax...nvasion, Fraud...JPRS 48912

...African-West German Cooperation Developing Fast, 5 pp.
JPRS 48931

...Socialism Seen to be Unsuitable to African Setting, by G. Leglise, 17 pp.
JPRS 48917

...Autonomin Youth Group Congress Reported, 5 pp.
JPRS 48966

JPRS 48831

JPRS 48831

JPRS 48912

FRENCH, par, Journal Officiel de la Republique Rwandaise, Kigali, 1 June 1969, pp 117-123.
JPRS 48966

Discussion of Malagasy Governmental Expenses, 7 pp.
JPRS 48912

Correspondent Surveys Situation in Sudan, by...ot'{tw'enain...90...[omuggln, lrax...nvasion, Fraud...JPRS 48912

Reunion Delegate Addresses Rumanian CF Congress, 5 pp.
JPRS 48916

JPRS 48912

Leaders in Portuguese Colonial Revolts Interviewed, by Henri Trosb, 16 pp.
JPRS 48906

A Visit to New PLO President Salim Saleh' Ali, by Heiner Winkler, 6 pp.
JPRS 48973
Visit to Raio-Occupied Area Discussed, by Bruno Criari, 14 pp.
JPRS 48744

Interview with Sector Commander presented, by Bruno Criari, 5 pp.
JPRS 48744

Revolutionary Movement in Portuguese Colonies, by Luigi Pestalozza, 9 pp.
JPRS 48830

Reorganization of Mozambique Liberation Front, 16 pp.
JPRS 48818

RUSSIAN, per, Kommunist, Moscow, No 11, Jul 1969, pp 36-47.
JPRS 48818

Military

Raison D'etre of African Armies Described, by Claude Feuillet, 5 pp.
JPRS 48866

Africa's War -- Revolution,
DIA LN 1110-69
Abu Zabi Plans for Air and Sea Corridor, 5 pp.
ARADIC, np, Al-Akhbar, Cairo, 5 Aug 1969, p 3.
JPRS 48949

Abu Zabi is in Need of Technical Experts, 5 pp.
ARADIC, np, Al-Akhbar, Cairo, 5 Aug 1969, p 3.
JPRS 48949

Egyptian Local Administration Plans Discussed,
by Sirrat Nastaf, 7 pp.
ARADIC, np, Al-Jumhuriyah, Cairo, 6 Aug 1969, p 3.
JPRS 48945

Arab Revolution Seeks Total Confrontation,
by Muhammad Ali, 6 pp.
ARADIC, np, Al-Aktar, Cairo, June 1969, pp 47-51.
JPRS 48872

Various Considerations of Arab Position Seen,
by Lutfi al-Shubul, 5 pp.
ARADIC, np, Al-Tali'ah, Cairo, June 1969, pp 5-8.
JPRS 48872

Leader Expounds Armed Liberation Theory,
by George Habash, 18 pp.
ARADIC, np, Al-Tali'ah, Cairo, June 1969, pp 37-45.
JPRS 48872

Palestinian Resistance Movement Explained,
by Abu Ayyad, 70 pp.
ARADIC, np, Al-Tali'ah, Cairo, June 1969, pp 51-87.
JPRS 48872

Objectives of Land Reform Law Disclosed, 6 pp.
ARADIC, np, Al-Thawrah, Baghdad, 29 Aug 1969, pp 6, 7.
JPRS 48872

Students of Yemen Issue Socialist Decrees,
7 pp.
JPRS 48937

Middle East Tension Attributed to Zionism,
by Husayn Abu al-Higer Sabri, 12 pp.
ARADIC, np, Rose al-Yusuf, Cairo, 12 May 1969, pp 26-33, 60.
JPRS 48937

Western Writers Allegedly Support Palestinian Cause,
by Ibrahim Issat, 6 pp.
ARADIC, np, Rose al-Yusuf, Cairo, 12 May 1969, pp 44-47.
JPRS 48937

Suez Public Security Regulations Announced,
5 pp.
ARADIC, np, Al-Muqattam, Cairo, 10 Aug 1969, pp 1-3.
JPRS 48945

Two Years of Administration over Gaza and Sinai,
13 pp.
JPRS 48999

Labor Supports Decrees for Union Emancipation,
5 pp.
GREEK, np, To Vima, Athens, 15 May 1969, pp 1, 2.
JPRS 48797

Texts of 3 Legislative Decrees on Labor Unions,
22 pp.
JPRS 48930

Anti-Regime Organization Blamed for Bomb Explosions,
8 pp.
GREEK, np, To Vima, Athens, 31 Aug 1969, pp 4-5.
JPRS 48745

Histadrut Stresses Socialist Zionism in Voting Elections,
30 pp.
HEBREW, np, Hayar, Tel Aviv, 3 Aug 1969, pp 6-7.
JPRS 48745
JPRS 48077

JPRS 48233

Rashid Leader Hits Intifadah of Party's Arab Following, by Avi Wilner, 3 pp.
JPRS 48290

Critics See Japan's Occupation Policy as Contradictory, by Yaakov Shavit, 12 pp.
Hebrew, per, "Ha'aratut," Tel Aviv, 15 Aug 1969, pp 4, 5, 6.
JPRS 48291

Iranian Land Reform Achievements Discussed, 9 pp.
JPRS 48324

Fighting Likely to Escalate on the Eastern Front, by Yol Akhras, 6 pp.
Hebrew, per, "Ha'arets," Tel Aviv, 12 Aug 1969, pp 5-7.
JPRS 48399

Dayan Appeals to Officers to Reenlist, 10 pp.
JPRS 48553

Mainland Hard Hit by Adverse Weather, by Kuan Shan-yuan, 10 pp.
JPRS 48911

Map of Mainland China Indicating Progress Made in Flood Control, Irrigation and Land Reclamation Projects, 7 pp.
JPRS 49092

Egyptian Rail Accidents Point Out Deficiencies, by Muhammad Zaydeh, 7 pp.
JPRS 48899

Border Residents Hard Pressed to Display Air of Normalcy, 9 pp.
Arabic, per, "Hadash," Tel Aviv, 19 Aug 1969, pp 6-7, 18-19.
JPRS 48853

Far East

Economic

Transportation and Communications Examined, by Ch'eng Chun-pei, 11 pp.
JPRS 43714

JPRS 48776

Mainland Hard Hit by Adverse Weather, by Kuan Shan-yuan, 10 pp.
JPRS 48911

Map of Mainland China Indicating Progress Made in Flood Control, Irrigation and Land Reclamation Projects, 7 pp.
Chinese, per, "Ta-Kung Pao," Hong Kong, 2 Sept 1969, p 3.
JPRS 49092
Scientific Base of Local Industry Discussed, by Doan Dinh Ho, 18 pp.
JPRS 48971

Monetary Crisis in Capitalist World Discussed, by Kim Ho, 20 pp.
VIETNAMESE, per, Tao Vien Khan, Hanoi, No 2, Feb 1969, pp 39-47.
JPRS 48946

Political

JPRS 48863

Revolutionary Strife in South Vietnam Described, 6 pp.
JPRS 48863

A "May 7" Cadres' School that Keeps Part of the Trainees in the School and Sends Others to Production Teams, by Hung Ch'i, No 9, 1969.
CHINESE, per, Tao Vien Khan, Hanoi, No 9, 1969.
JPRS 48880

VIETNAMESE, per, Van Lien, Hanoi, 8 Aug 1969, pp 1, 4.
JPRS 48866

---

Organization of Transportation System Promoted, 7 pp.
KOREAN, per, Hakbong Simma, Pyongyang, 18 Jul 1969, p 2.
JPRS 48864

KOREAN, per, Hakbong Simma, Pyongyang, 4 Aug 1969, pp 2-3.
JPRS 48864

Soviet Steamship at Haiphong, 13 Apr 1969.
DIA (L) 147

Lack of organization hampers Growth of Local Economy, by Lo Thanh Kha, 20 pp.
JPRS 48779

JPRS 48779

Western World Monetary Crisis Analyzed, by Lao Viet Loan, 12 pp.
VIETNAMESE, per, Hoa Tap, Hanoi, No 7, July 1969, pp 77-89.
JPRS 48779

JPRS 48732

Ideological Activities, Aims in DRV Told, by Duong Lap, 30 pp.
VIETNAMESE, per, Hao Doc va by Thuat Nong Naph, Hanoi, No 21, Jan 1969, pp 16-23.
JPRS 48749

VIETNAMESE, per, Van Lien, Hanoi, 8 Aug 1969, pp 1, 4.
JPRS 48866
Investigate the Struggle Between the Linns in Society,attice Concentration of the Struggle Between the Two Lines.
Survey of China Mainland Press
12 Aug 1969

*T'ai-p'ing "May 7" Cadre School Moves Forward.
7 pp.
CHINESE, np, Jen-min Jih-pao, 4 Sept 1969.
Survey of China Mainland Press

Nationwide Acclamation Over Publication of "Slogans for the Celebration of the 20th Anniversary of the Founding of the People's Republic of China".
Survey of China Mainland Press
No 4503
25 Sept 1969

Oppose the Small Group Mentality, by Wen Yu-p'ing.
CHINESE, np, Jen-min Jih-Pao, 12 Sept 1969.
Survey of China Mainland Press
No 4500
22 Sept 1969

Calumny Against People's Revolutionary War Not Allowed.
Survey of China Mainland Press
No 4502
24 Sept 1969

On the Broad Way of Continuation of Revolution.
Survey of China Mainland Press
No 4509
3 Oct 1969

Taking a Cheerful First Step Along Chairman Mao's Revolutionary Line.
Survey of China Mainland Press
No 4520
2 Oct 1969

Pathet Lao Stronger as Government Weakens,
by Jean-Claude Pomonti, 5 pp.
JPRS 48994

Syngmys Accomplishments Between Congresses,
5 pp.
FRENCH, np,<Realitas Cambodgienses>, Phnom Penh, 1 Aug 1969, pp 5-11.
JPRS 48994

JPRS 48994

Austrian Communist Writer on Conditions in Laos,
by Otto Janacek, 6 pp.
Deutsch, np, Volkstime, Vienna, 23 Aug 1969, p 3;
JPRS 48994

Seuphan strings Interviewed on Lao Revolution,
by Jean-Claude Pomonti, 5 pp.
JPRS 48994

Class Indoctrination for Youth Must Be Intensified,
10 pp.
JPRS 48844

Property Upkeep and the Ideological Revolution,
by Choe Ch'il-nam, 15 pp.
KOREAN, np, Rodong Sinmun, P'yongyang, 1 Aug 1969, pp 2-7.
JPRS 48844

HRP Announces May Day Slogans, 5 pp.
MONGOLIAN, np, Umen, Ulan Bator, 20 Apr 1969, p 1.
JPRS 48995

Deputies Elected to Mongolian People's Great
Rural, 21 pp.
JPRS 48750

MONGOLIAN, np, Umen, Ulan Bator, 5 July 1969, pp 1, 2.
JPRS 48750
Provincial party cited for organizational faults in wartime, by Lang Gia Tiat, 12 pp.
VIETNAMESE, per, HOC TAP, Hanoi, No 7, July 1969, pp 33-42.
JPRS 48779

Hanoi to step up ideological training among tribes, by Hong Quoc Han, 7 pp.
VIETNAMESE, per, HOC TAP, Hanoi, No 7, July 1969, pp 51-56.
JPRS 48779

VIETNAMESE, per, LOC TAP, Hanoi, No 7, July 1969, pp 57-60.
JPRS 48779

NLRV, provisional Govt recite alleged U.S. violation of Geneva accord, by Huong Nam, 8 pp.
JPRS 48779

Western writers quoted to show righteousness of Vietnamese cause, by Luu Quy Ky, 9 pp.
JPRS 48779

Hanoi, 25th national day, by Nguyen Duc, 5 pp.
VIETNAMESE, per, HOC TAP, Hanoi, No 7, July 1969, pp 75-78.
JPRS 48779

VIETNAMESE, per, HOC TAP, Hanoi, No 8, Aug 1969, pp 4-22.
JPRS 48992

Educating people to adapt life under state ownership, by Do Ba, 3 pp.
JPRS 48992

Political education goes along with on-the-job training, by Chi Quang, 5 pp.
JPRS 48992

VIETNAMESE, per, HOC TAP, Hanoi, No 8, Aug 1969, pp 41-70.
JPRS 48992

VIETNAMESE, per, HOC TAP, Hanoi, No 8, Aug 1969, pp 73-76.
JPRS 48992

Hanoi extols Romanian industrial pairs, thanks her friendship, by Le Trung Ha, 6 pp.
VIETNAMESE, per, HOC TAP, Hanoi, No 8, Aug 1969, pp 85-90.
JPRS 48992

Our anti-U.S. struggle versus world prestige, by Tran Rue Lieu, 5 pp.
VIETNAMESE, per, HADAN GIAI LICH SU, Hanoi, No 122, May 1969, pp 1-5.
JPRS 48830

Role of public security forces emphasized, by Vien Chi, 6 pp.
JPRS 48986

U.S. accused of following fascist example, 9 pp.
VIETNAMESE, np, HADAN, Hanoi, 1 Sept 1969, p 4.
JPRS 49014

Editorial reviews Vietnam-Indochina success, 5 pp.
VIETNAMESE, np, HADAN, Hanoi, 2 Sept 1969, pp 1, 2.
JPRS 49086
Information Group Five Good in Youth Activities, by Vo Ho, 5 pp.
VIETNAMESE, np., Quan Doi, Hanoi, 22 July 1969, p. 3.
JPRS 48946

Increase in Revolutionary Heroism Urged, 8 pp.
VIETNAMESE, per., Tuyen Huan, Hanoi, No 2, Feb 1969, pp 31-33.
JPRS 48946

Ngoc Tot, Vien Tot Series Popularized, by Pham Minh, 7 pp.
VIETNAMESE, per., Tuyen Huan, Hanoi, No 2, Feb 1969, pp 31-33.
JPRS 48946

Public Recognition Given to Soldiers' Families, by Pham Minh, 5 pp.
VIETNAMESE, per., Tuyen Huan, Hanoi, No 2, Feb 1969, pp 31-33.
JPRS 48946

End of Individualism, Improved Ethics Urged, 12 pp.
JPRS 48948

Revolutionary Life Required for Party Members, by Nguyen Luong Bang, 15 pp.
JPRS 48948

Ho, Duan Define Revolutionary Qualities, Ethics, 10 pp.
JPRS 48948

Masses Motivated to Protect State Property, by Tran Viet, 7 pp.
VIETNAMESE, per., Tuyen Huan, Hanoi, No 3, 1969, pp 34-37, 47.
JPRS 48948

Ideology Aids Labor Organization, Management, by Le Hong, 10 pp.
VIETNAMESE, per., Tuyen Huan, Hanoi, No 3, 1969, pp 37-42.
JPRS 48948

References of the Guerrilla Activities During the Indochina War, 45 pp.
CHINESE, np., pp 4-14.
JPRS 48946

Overcoming Chinese Rail Vietnamese Victories, 66 pp.
VIETNAMESE, np., Quan Doi, Hanoi, 20 July 1969, p. 4.
JPRS 48947

VIETNAMESE, np., Quan Doi, Hanoi, Nov 1969, p. 4.
JPRS 48948

Guerrilla Warfare Increases in South Vietnam, 6 pp.
VIETNAMESE, np., Quan Doi, Hanoi, 22 July 1969, p. 2.
JPRS 48949

Viet Cong Acclaim Victories Against U.S. in Mekong Delta, by Van Thanh, 8 pp.
VIETNAMESE, np., Quan Doi, Hanoi, 4 Aug 1969, p 1, 2.
JPRS 48950

NPP Navy Shows Pride in 14 Years of Accomplishment, by Nguyen Nhat, 5 pp.
VIETNAMESE, np., Quan Doi, Hanoi, 5 Aug 1969, p. 2.
JPRS 48954

VIETNAMESE, per., Tuyen Huan, Hanoi, No 3, 1969, pp 43-47.
JPRS 48958

Marshes on Jordan plateau, by Ch'yi Hsiu, Lang Hsu-ch'ing, 163 pp.
JPRS 48969
Overseas Chinese Normal School Successful, 6 pp.
JPRS 48844

Overseas Chinese Reemphasize Domestic Role, 9 pp.
JPRS 48849

Schools progress But Still Need Improvement, 5 pp.
JPRS 48891

Penetratingly Conduct Education on the Struggles Between the Tow Roads in the Rural Areas.
CHINESE, per, Hung-ch'i, No 9, 1969.
China Mainland Magazines
No 995
22 Sept 1969

Unite, Educate and Transform the Intellectuals in the Revolution in Education.
CHINESE, np, Jen-min Jih-pao, 8 June 1969.
Current Background
No 993
18 Sept 1969

Question of Revolution in Education Concerning Medical Colleges.
CHINESE, np, Jen-min Jih-pao, 8 July 1969.
Current Background
No 993
18 Sept 1969

Discussion on How to Operate "Hay T" Cairo Schools Well (II).
Survey of China Mainland Press
1 Sept 1969

Plan for Health and Family Planning, in Renjiana
INDONESIAN, encl to TR 2-728-0063-89, 28 Apr 1969
DIA LN 1199-69

JPRS 48779

Higher Education Achievements, Failings Assessed, by Hoang Xuan Tuyen, 5 pp.
JPRS 48779

Greater Efforts Urged in Mass Cultural Development, by Vo Hong Cuong, 9 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 8, Aug 1969, pp 77-84.
JPRS 48852

Some Features of Bahar Society Described, by Le Thi Ngoc Ai, 16 pp.
VIETNAMESE, per, Huyen Cuu Luc Su, Hanoi, No 122, May 1969, pp 67-74.
JPRS 48850

Reforms Urged for Biology Curricula in Schools, by Dao Van Tien, 10 pp.
JPRS 48871

Results of Hanoi University Research Told, 9 pp.
JPRS 48871

Reading Programs Being Arranged in Hanoi, by Xuan Tan, 7 pp.
VIETNAMESE, per, Lyvon Haan, Hanoi, No 2, 1969, pp 34-36.
JPRS 48946
Cuban Efforts in Developing the Tuna and Shrimp Fisheries.
JPRS TT 69-52056

Port Revolution.
PORTUGUESE, per, Jornal de Brasil, Suppl Mar 1969.
DIA LN 7G-09

Transportation.
DIA LN 7G-70

Low Interest Rates for Farmers.
DIA LN 7G-09

Unemployment Awaits Chile's Overseas Students, 5 pp.
SPANISH, np, Clarin, Santiago de Chile, 10 Aug 1969, p 27.
JPRS 49794

Andean Economic Integration Discussed, by Jaime Rey de Castro, 8 pp.
JPRS 48923

Future Copper System Analyzed in Figures, 5 pp.
SPANISH, per, El Comercio, Santiago, Chile, 30 July-5 Aug 1969, pp 77, 79.
JPRS 42742

Ten-Year Industrial Development Plan Outlined, by Carlos Sepulveda Vergara, 7 pp.
JPRS 48011

State Contributions to Universities Increase, 5 pp.
SPANISH, np, La Nacion, Santiago, Chile, 1 Aug 1969, p 5.
JPRS 48946

Research Important Part of Fishing Activities, by Horta Cabrera, 7 pp.
SPANISH, per, El Comercio, Santiago, May 1969, pp 10-17.
JPRS 48742

Minister Strauss Announces Anti-Inflation Plan, by Enrique Strauss, 10 pp.
SPANISH, np, La Nacion, Santiago Chile, 29 July 1969, p 5.
JPRS 48742

JPRS 48742

Coastal Area to Benefit from Investment Plan, by Luis Carlos S. Galan, 11 pp.
SPANISH, np, El Tiempo, Bogota, 6 Sept 1969, p 12.
JPRS 48742

Official Interviewed on Housing Shortage, by Gloria Tamayo, 9 pp.
SPANISH, np, El Tiempo, Bogota, 8 Sept 1969,
JPRS 48742

Pedro Maret Discusses Far in Sugar Harvest, 5 pp.
JPRS 48578

Current Latin American Scene Analyzed, by David Fernandez, 10 pp.
ITALIAN, per, L'Espresso Colore, Rome, 14 Sept 1969, pp 5, 6, 9, 10-12, 14.
JPRS 49011

Guerrilla Movements' Tactics Discussed, by Livio Zanotti, 5 pp.
JPRS 49011
Prosidont of Ecuoijdo Reviu-.;TIojsn
Ltwftwin.-,
!Xilo
Discusses
drazilian
Situation,
Offica,
42
pp.
by L.
SPANISI6, per,
El Cfowxicio;
Quito.,
11 'Aurg 1)69,
pp.17;
12 Aug 1969,
p 1-.
JPRS 48816

Background, Text of Bishops' Declaration Given,
5 pp.
PORTUGUES, ep. O Globo, Rio de Janeiro,
JPRS 48978

Uniting a Continent - A Hard Task.
PORTUGUES, per, Vistao, Vol 39, No 2, 31 Jan
1969, pp 114-118.
DIA LI Vofi-69

Bosch Asserts Trujillo Is not Main Threat,
by Juan Bosch, 12 pp.
SPANISH, per, Ahora, Santo Domingo, 28 July and
JPRS 48754

People's Struggle Against Dominican Oligarchy,
by Juan Bosch, 7 pp.
SPANISH, per, Ahora, Santo Domingo, 18 Aug 1969,
pp 17-20.
JPRS 48816

Bourgeois Role Under Popular Dictatorship, by
Juan Bosch, 7 pp.
SPANISH, per, Ahora, Santo Domingo, 22 Sept 1969,
pp 17-19.
JPRS 48978

Some Racila limization Survival Indicated,
by Juan Mi rable, 5 pp.
SPANISH, per, Boheria, Havana, 20 June 1969,
pp 43-49.
JIRS 46745

Integrated Vehicle Transportation in Santiago,
by Javier Rodriguez, 3 pp.
SPANISH, per, Boheria, Havana, 4 July 1969,
JIRS 46755

Revolutionary Left Faces Reorganization,
by rio Martin, 7 pp.
SPANISH, per, Boheria, Caracas, 31 Aug 1969,
pp 34-36.
JIRS 46951

President of Ecuador Reviews Ten Months in
Office, 42 pp.
SPANISH, per, El Censo, Quito, 11 Aug 1969,
JPRS 48816

Presidential TV Press Conferences Criticized,
by rio Martin, 7 pp.
SPANISH, per, Boheria, Caracas, 14 Sept 1969,
pp 26-29.
JPRS 48975

Interior Minister Says Pacification Succeeding,
by Lorreno Fernandez, 7 pp.
SPANISH, per, Boheria, Caracas, 14 Sept 1969,
pp 48-49.
JIRS 48977

Peronist Faction Appraises Political Situation,
14 pp.
SPANISH, per, Cristianismo y Revolution,
Buenos Aires, 1 Aug 1969, pp 1-12.
JPRS 48714

Auxiliary Bishop Oves of Cienfuegos Interviewed,
by Orlando Contreras, 7 pp.
SPANISH, per, Cuba, Havana, Aug 1969, pp 22-25.
JPRS 46914

Alessandri Campaign Spokesman Interviewed,
by Jorge Fi , 2 pp.
SPANISH, per, Ercilla, Santiago, 10-16 Sept
JPRS 45011

Strange Strategy, Background of MIR Related,
by Erica Vexler, 11 pp.
SPANISH, per, Ercilla, Santiago, 10-16 Sept
JPRS 46798

Revolutionary Leader Explains Assaults, 6 pp.
SPANISH, per, Ercilla, Santiago, 10-16 Sept
1969, pp 13-16.
JPRS 46978

Ideological Revolt Among Cuban Intellectuals, 8 pp.
SPANISH, per, Ercilla, Santiago, July 1969,
pp 3-7.
JPRS 46946
JPRS 48816

JPRS 48817

JPRS 48774

Naj Jose Abarantes Closes National CDR Meeting, 7 pp.
JPRS 48820

Young Communists Union Issues Sugar Harvest Plan, 5 pp.
JPRS 48774

Jose Abarantes Closes National CDR Meeting, 7 pp.
JPRS 48820

JPRS 48774

Protesting Parents Occupy High School, 5 pp.
JPRS 48774

Alberto Labor Expresses Views to Journalist, 9 pp.
JPRS 48774

Dorothy Vines Gives Views About Political Situation, 7 pp.
SPANISH, np, Karapa, Montevideo, 1 Sept 1969, p 7.
JPRS 48811

SPANISH, np, Cuba, Havana, 14 Sept 1969, pp 56-64.
JPRS 48774

University Reform Dominated by Extreme Leftists, 7 pp.
JPRS 48816

Student Organization Defended by Leader, by Alexis Adam, 5 pp.
JPRS 48754

Steering Committee of Colombian-Venezuelan Border, by German Carlow, 60 pp.
JPRS 48754

JPRS 49011

Latin America's United Stand on U.S. Interests, 5 pp.
JPRS 49011

Speech by Arismendi on 7 June 1969, by Rosendo Arismendi, 11 pp.
SPANISH, np, El Popular, Montevideo, 1 Aug 1969, pp 14-16.
JPRS 48774
Revolutionary Nationalist Action Outlines Goals, 17 pp.
JPRS 48914

SPANISH, np, Prensa Libre, Cochabamba, 9 Sept 1969, p 3.
JPRS 48928

Interview with Bolivian President Siles, by Jose Luis Alcar de la Riva, 6 pp.
SPANISH, np, Revolución, La paz, 6 Aug 1969, p 16.
JPRS 48934

SPANISH, per, El Pueblo, Guayaquil, 23 Aug 1969 pp 1, 4, 6, 7, 10, 11.
JPRS 48981

Sociology of Revolutionary Parties Analyzed, by Pedro Duno, 5 pp.
SPANISH, np, Punto Final, Santiago, Chile, 12 Aug 1969, pp 22, 23.
JPRS 48985

Youth Sector Leader Describes Role of Radicals, 7 pp.
SPANISH, per, Punto Final, Santiago, Chile, 12 Aug 1969, pp 29-30.
JPRS 48985

SPANISH, per, Punto Final, Santiago, Chile, 26 Aug 1969, pp 8-10.
JPRS 48985

Statement by Movement of the Revolutionary Left, 7 pp.
SPANISH, per, Punto Final, Santiago de Chile, 26 Aug 1969, pp 14-16.
JPRS 48985

SPANISH, per, Punto Final, Santiago de Chile, 26 Aug 1969, pp 16-18.
JPRS 48985

Student Leader Discusses Revolutionary Struggle, by Saul Alarcón, 5 pp.
JPRS 48981

Discussion Marks Latin American Writers Meeting, 9 pp.
JPRS 49011

Leader Describes New Revolutionary Group, 5 pp.
JPRS 49028

Refugee Revolutionary Speaks of Iran Robberies, 5 pp.
SPANISH, per, Punto Final, Santiago, 9 Sept 1969, pp 30-34, 70.
JPRS 49028

Castro Interviewed as He Launches Can Harvest, by Carta O. Soria, 7 pp.
SPANISH, per, Símbolo, Mexico City, 6 Aug 1969, pp 22-24, 70.
JPRS 48794

Interview with Carlos Rafael Rodriguez, by Eduardo Labarca Godiard, 5 pp.
JPRS 48794

Cuban Communist Party Growth Assures Production, by Eduardo Labarca Godiard, 5 pp.
JPRS 48794

JPRS 48816

SPANISH, np, Última Hora, Santiago, Chile, 3 Aug 1969, p 14.
JPRS 46785
Calderon asks reconsideration of law on judiciary, 14 Aug 1969, pp. 16.
JPRS 48810

JPRS 48848

Vieira asks support from workers, farmers, by Gilberto Vieira, 13 Aug 1969, p 9, 10, 12.
SPANISH, [V]oz [proletaria] [Bogota], 28 Aug 1969, pp. 6, 7, 12.
JPRS 48948

JPRS 48973

Geography

SPANISH, Bohemia [La Habana], 30 May 1969, pp 12-20.
JPRS 48828

Sociological

Writers conference discusses social issues, by Juan Ehrmann, 8 pp.
JPRS 49011
NACA TR 7-720

NACA TR 7-435

Infrared and Light Wave Aircraft Homing and Guidance Apparatus, by L. P. Lazarev.
AGZJ-0533

RUSSIAN, bk, Kriticheskiye Rezhlmyi Svedenit'sya i Svalivaniya i Shtopor, 1967.
NACA TR 7-928

AIR/TR/N/23-552-68

Installation for High-Temperature Investigations of Heat-Resistant Aviation Materials and Coatings, by V. V. Pasichnyy, V. S. Demyanov. 10 pp.
RUSSIAN, br, Samoletoostroeniy i Teknika Vozdushnogo Flota, No 10, 1967, pp 77-83.
AIR/TR/N/23-504-68

AIR/TR/N/23-489-68

Aircraft in the Air, by B. A. Arilin. 34 June 1969.
GIA II 187-3
Development in the Field of Aerological Meteorology.


ACS 1-J-7030

Chemistry in Advance Fertilizer Production, G. M. Mahtiyeev, V. S. Filipenko, 5 pp.


The Calculation of the Induced Velocity Field of a Wing, by Klaus Gersohn.

GERMAN, rpt, Jahrhundert Ausfuhrt, pp 173-1-80.

NASA TT F-105959

Six-Month Status of Liming Program Reviewed, by V. Karchurin, 5 pp.

RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 32, Aug 1969, p 17.

JPRS 48813


RUSSIAN, per, Ekonomika i Zhizni, Tashkent, No 7, 1969, pp 70-82.

JPRS 45173

Comunist Role in Improving Farm Output Praised, by V. Karchurin, 5 pp.

RUSSIAN, np, Selskaya Zhizn, Moscow, 4 Sept 1969, p 2.

JPRS 49099

Improvements Called for in Grain Procurement System, by Z. Surinov, 5 pp.

RUSSIAN, np, Selskaya Zhizn, Moscow, 4 Sept 1969, p 2.

JPRS 49262

Six-Month Status of Liming Program Reviewed, by V. Karchurin, 5 pp.

RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 32, Aug 1969, p 17.

JPRS 48813


JPRS 48045

Problems of Accounting on Kazakh Farms Examined, by A. Belkov, 9 pp.


JPRS 45736

Fertilizer Production Plans Described, by T. Kovalt, 7 pp.

RUSSIAN, per, Selskohos-Tekhnicheskaya Gazethestva, Moscow, No 6, 1969, pp 10-11.

JPRS 45929


RUSSIAN, per, Trudy Nauchno-Issled Inst Zhivot Ministerstvo Sel'skogo Khoz UzSSR, 1962, pp 2-11.

JPRS 69-53053

Preliminary Data for Testing Annual Fodder Plants in Samarskoy Collective Nursery, by V. A. Rozov.

RUSSIAN, per, Trudy Nauchno-Issled Inst Zhivot Ministerstvo Sel'skogo Khoz UzSSR, 1962, pp 12-17.

JPRS 69-53053

Maintenance of Microelements - Cobalt, Copper, Iridium, Manganese and Iron - in Certain Fodder Areas of Uzbekistan, by P. Sh. Usilevskaya.


JPRS 69-53053

Study of Fodder Crops, by A. L. Granitov.

RUSSIAN, per, Trudy Nauchno-Issled Inst Zhivot Ministerstvo Sel'skogo Khoz UzSSR, 1962, pp 159-230.

JPRS 69-53053
JPRS 48019

Researchers Recommend Process for Potato Harvest, 8 pp.
JPRS 48828

Bonding Soil with Resins.
HUNGARIAN, per, Muanyag es Gumi, pp 27-28.
*ACS1-5-74401

Entrepreneurial Guidance in Agriculture Urged, by Han Chanyok, 8 pp.
JPRS 46944

Iran Must Manage Timber Resources More Wisely, by Mohammad Taqi Saqafi, 5 pp.
PERSIAN, per, Keyhan, Tehran, 2 June 1969, p 16.
JPRS 48826

POLISH, per, Mechanizacja Rolnictwa, Warsaw, 16-31 Jul 1969, pp 1-5.
JPRS 48988

JPRS 48933

POLISH, per, Wiadomosci Melioracyjne i Lakarskie, Warsaw, No 6, Jun 1969, pp 161-166.
JPRS 48979

Water Conservancy Urged for Agriculture, by Jerzy Kucharski, 5 pp.
POLISH, per, Gwiaś Osposobone, Warsaw, 17 Aug 1969, p 3.
JPRS 48724
Specialization in Farm Machinery Discussed, by A. Zmuda, 5 pp.
JPRS 49008

PORTUGUESE, per, Actualidade Economica, Lisbon, 4 Sept 1969, pp 13-16.
JPRS 48980

Specialization of State Farms Described, 8 pp.
ROMANIAN, per, Prima si Intra-primerele Agricole de Stat, Bucharest, No 5, May 1969, pp 1-3, 5.
JPRS 48734

Role of Credit in Agriculture Examined, by Ion Raumari, 12 pp.
ROMANIAN, per, Finante si Credit, Bucharest, No 6, June 1969, pp 9-18.
JPRS 48852

JPRS 48932

ROMANIAN, per, Probleme Economice, Bucharest, Apr 1969, pp 22-23.
JPRS 48792

Position in International Agriculture Described, 17 pp.
ROMANIAN, per, Studii si Cercetari Economice, Bucharest, No 4, Oct-Dec 1969, pp 149-162.
JPRS 48862

Development of Industrialized Agriculture Cited, by B. Schiopu, 9 pp.
ROMANIAN, per, Viata Economica, Bucharest, 9 Aug 1969, pp 9, 12.
JPRS 48939

JPRS 48996
JPRS 48932

RIATISH, per, Soberia, Havana, 4 July 1969, pp 40-47.
JPRS 48785

Priests Urged Just, Speedy Agrarian Reforms, 6 pp.
RIATISH, per, Cuadernos de Pueblos, Montevideo, June 1969, pp 29-32.
JPRS 48942

JPRS 48948

JPRS 48739

Tan Dao State Farm Reforms Infertile Soil, by Do Tran Quy, 7 pp.
JPRS 48739

JPRS 48739

Capability for Developing Cattle Raising Told, by Tran Van Trinh, 10 pp.
VIETNAMESE, per, Khoa Hoc va Ky Thuat Nong Hoa, Hanoi, No 79, Jan 1969, pp 47-54.
JPRS 48739

Every Available Hand Used to Salvage Crop, by Tue Quynh, 5 pp.
JPRS 48906

Goal of One Laborer Per Hectare Analyzed, by Luong Dinh Cun, 5 pp.
JPRS 48992

Hanoi Suburbs Increase Vegetable Production, by Tran Van Trieu, 5 pp.
JPRS 48950

One-Laborer-per-Hectare Target is Set, by Dao The Tuan, 6 pp.
JPRS 48950

Rice Production in North Still Beseet with Problems, by Le Van Can, 6 pp.
JPRS 48950

JPRS 48957

New Regulation on Farm Cooperatives Explained, 16 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 14-18 Aug 1969, p 2.
JPRS 48959

Expansion of Farm Tool Repair Facilities Urged, by Nguyen Ba, 7 pp.
JPRS 48979

How Can Intellectuals Contribute to Forestry?, by Nguyen Tao, 5 pp.
JPRS 48806

Capability for Developing Cattle Raising Told, by Tran Van Trinh, 10 pp.
VIETNAMESE, per, Khoa Hoc va Ky Thuat Nong Hoa, Hanoi, No 79, Jan 1969, pp 47-54.
The Moon, by L. N. Lifshin.
NASA TT F-15, 300

On the Accuracy of the Orbital Elements of Artificial Earth Satellites, by A. S. Bodulina.
ASTP-TC 1783

NASA TT F-302

Density of Solar Neutrons at Various Depths of the Atmosphere in Years of Minimum Solar Activity,
by A. M. Manov, 5 pp.
AX/NT 67-60
CSTI

Dependence of the Diffusion Coefficient of Cosmic Rays on the Spectrum of Interplanetary Magnetic-Field Inhomogeneities and on the Distance from the Sun, by A. Z. Dolginov, I. N. Topygin.
Dept of Navy APL/CR 17-2903

Secular and Irregular Variations in the Gas Evolution Intensity in Comets, by V. G. Ryvace.
RUSSIAN, per. Komety i Meteory, No 14, 1969, pp 3-16.
NASA TT F-122, 273

Vortex Train Diffusion and Turbulence in the K-Zone of the Atmosphere, by A. P. Savrukhin.
RUSSIAN, per. Komety i Meteory, No 14, 1969, pp 11-16.
NASA TT F-122, 279

One of Vortex Train of Intermediate-Type in the Measurement of the Coefficient and the Linear Electron Density, by T. I. Yal'ko.
NASA TT F-122, 279

NASA TT F-122, 279

The Leonid Meteor Shower, by I. G. Astapovich.
NASA TT F-122, 279

NAS/NSA TT F-122, 279

NASA TT F-122, 279

Single-Channel Infrared Photometer, by G. V. Kozlov. 10 pp.
NASA TT F-122, 279

NASA TT F-122, 279

Certain Analytical Results of Observations Obtained from a Transit Inversion of the Khabarad State University Time Service, by V. P. Kishchenko. 9 pp.
NASA TT F-122, 279

Nuclear of Galaxies, by V. A. Ambartsumyan.
NASA TT F-122, 279

The Hot Universe, by Ya. B. Zel'dovich.
NASA TT F-122, 279
The Calculation of the Natural Illumination of a Horizontal Surface, by G. D. Bartosova, Ya. A. Bul'janova.
NLL Ref: 5326.4F (M 7681)

The Dynamics of Radar Echo Development on Certain Marine Climates, by R. A. Andargyana.
NLL Ref: 5324.7-41
AOSI-J-7390
PFS-ON-23-007-70

NLL Ref: 5323.4F (M 7679)

On the Application of the Technique of Objective Analysis to the Control of the Pressure Field, by T. F. Svetlova.
NLL Ref: 5323.4F (M 7687)

On the Problem of the Control of Data on Sunshine Duration and Cloudiness, by V. S. Kapcheneva.
RUSSIAN, per, Trudy Glav Geofiz Obser, No 236, 1968, pp 42-47.
NLL Ref: 5322.4F (M 7670)

On the Accuracy of Interpolation of Monthly and Seasonal Amounts of Precipitation, by N. V. Gushchina, I. A. Polishchuk.
NLL Ref: 5322.4F (M 7681)

AOSI-J-7897

...errors in the determination of wind velocity and direction due to inaccurate measurements of coordinates, by M. V. Krasner. 29 pp.
RUSSIAN, per, Trudy, Tsentral'naia Aerologicheskaya Observatoriya, No 74, 1966, pp 3-22.
AIR/PTD/MT-74-22-69

AIR/PTD/MT-23-005-68

Climate Atlas of Hungary Volume II.
DIA LN 1240-69

GERMANY, per, Zeitschrift fur Meteorologie, Vol 19, No 7-8, 1967, pp 202-211.
AIR/PTD/HT-23-1006-68

The Major Climates of Brazil.
PORTUGUESE, per, Boletin Geográfico, No 105, Mar-Apr 1967, pp 173-190.
DIA LN 1278-69

Climatological Sketch of the East Region of Brazil.
PORTUGUESE, per, Revista Brasileira de Geografia, Jan/Mar 1958.
DIA LN 1136-69

Meteorological Instruments.
POLISH, per, Aids to Navigation, No 8, pp 665-666.
DIA LN 1311-69
RUSSIAN, per, Avtomatika i Telemekhanika, Moscow, No 4, 1969, pp 118-128.
JPRS 48501

RUSSIAN, per, Avtomatika i Telemekhanika, Moscow, No 4, 1969, pp 137-144.
JPRS 48501

RUSSIAN, per, Problemy Kibernetiki, No 19, 1967, pp 141-175.
ARM/FSTC/HT-23-119-69

The Emotional Reaction of the Pupils, by S. Lieben, GERMANY, per, Pflueger Arch Ges Physiol, No 225, 1930, pp 699-704.
HEW NIH 3-1-69

HEW NIH 7-1-69

ARM/FSTC/HT-23-741-68

RUSSIAN, per, Dok Ak Nauk SSSR, Vol 162, No 3, 1965.
ARM/FSTC/HT-23-912-69

JPRS 48880


JPRS 48880


AIR/FTD/AN-73-111-68

Materials for Method of Determining Fluorine in Biological Substrates, by G. A. Sereda. RUSSIAN, per, Gig Tr Prof Labol, Vol 12, No 1, 1968, pp 54-57.

HEW NIH 7-35-69


JPRS 48888


JPRS 48888


JPRS 48888


CONSULTANTS BUREAU/PLENUM PRESS

Scientists Approach the Sources of Life, by A. Farov, 5 pp. RUSSIAN, per, Izvestiya, Moscow, 17 Jul 1969, p 5.

JPRS 48880


NIL Ref: 58260.47 (8 1968)


HEW NIH 7-33-69

Characteristics of Qualitative Changes of Fish at Thawing, by A. P. Piskarev. RUSSIAN, per, Kholodil'nya Tekhnika, No 7, 1969, pp 34-39.

CONSULTANTS BUREAU/PLENUM PRESS


NASA TT 8-501


HEW NIH 7-4-69


CONSULTANTS BUREAU/PLENUM PRESS


NASA TT 8-576
Blood Gas Composition in Patients with Severe Cerebrocranial Injury, by V. V. Lovedev.
RUSSIAN, per, Vop Neyrokhir, Vol 26, No 3, 1962, pp 79-123.
HEN NII
7-33-69

Saturation of the Arterial and Venous Blood Oxygen in Acute Closed Cerebrocranial Trauma (Experimental and Clinical Investigation), by N. B. Leybron.
HEN NII
7-40-69

On a Method of Obtaining Artificial Aneurysms, by K. P. Aikut.
HEN NII
7-3-69

Detection of Minimal Concentration of Influenza Virus in the Droplet Phase of an Aerosol, by S. Ya. Gaydamovich, V. V. Vlodavets.
RUSSIAN, per, Voproy Virusesology, No 1963, pp 349-353.
ACSI-J-7078
ID 220406069

A Hemorrhagic Fever of Monkeys, by E. A. Lapin.
RUSSIAN, per, Vop Virus, Vol 12, No 1, 1967, pp 168-173.
HEN NII
7-2-69

Evaluation of the Prophylactic Activity of the Anti-Influenza Drug Amantidine, by A. A. Smorodintsev, 5 pp.
JPLS 48798

The Effect of Vynkol on Certain "ET of the Microndynamics, by Yu. I. Zakut.
JPLS 48798

RUSSIAN, per, Vop Royoakhir, Vol 7, 1927, pp W1-144.
ACSI/JL/ID 741
COSTI

RUSSIAN, per, Zhrn Mikrobiologii, Epidemiologii I Mikrobiologii, Moscow, Jul 1969, pp 75-82.
JPRS 40810

Specific Differences Between the European and the North Pacific Eleginus (Navaga) and the Systematic Position of Eleginus from Arctic Alaska and Canada, by A. N. Svetovidov.
*COSTI TT 69-59036

Contribution to the Knowledge of Moridae (Pisces, Gadiformes), by A. N. Svetovidov.
*COSTI TT 69-59037

Peculiarities in the Microscopic Structure of the Cerebellum in Eleginus Navaga (Pallas) and Cadus Morhua Marisaelbi Derjurin in Respect to Their Mode of Life, by A. N. Svetovidov.
*COSTI TT 69-59038

Reorientation in the Common Dolphin (Delphinus Delphis), by V. N. Belkovitch, V. I. Borisov, 12 pp.
RUSSIAN, per, Zoologicheskiy Zhurnal, Moscow, June 1969, pp 875-894.
JPRS 49790

UKRAINIAN, per, NTU, Uspekhi, Seriya B. Nauki, Kiev, No 3, 1967, pp 746-750.
AKH/ITD/ATP-23-468-68

INTERNATIONAL, per, SbAKH DALROGOZHOVY ZVhV, Vol 30, No 4, 1968, pp 117-121.

PROJECT 48602

International Symposium on Problems of Economic Effectiveness of Veterinary Medicine, by Vl. Stankov, St. Georgieva, 7 pp.

SOMALIAN, per, Ekonomicheskaya Misyul, Sofia, No 5, 1969, pp 103-107.

PROJECT 48802

New Federation of Medical Societies Founded, by T. Fashew. 10 pp.

SOMALIAN, per, SbAwrajepepe Medita, Sofia, No 3, 1969, pp 148-151.

PROJECT 48879


SOMALIAN, per, SbAwrajepepe Medita, Sofia, No 3, 1969, pp 152-153.

PROJECT 48979

Future Tasks in Veterinary Medicine Outlined, 5 pp.

SOMALIAN, per, Veterinarny Meditsina, Sofia, No 8, August 1969, pp 1-3.

PROJECT 48983

Table of Contents for Enzymology Text, by LU Fa-chung, 5 pp.


PROJECT 48982


NATIONAL INSTITUTE OF HEALTH EMERGENCY RESPONSE, NASA TT F-12,652

Importance of Polyelectromyographic Examination of Respiratory Muscles in Patients with Miners Silicosis and Pneumoconiosis, by E. Klinkova-Deutschova.


PROJECT 48984

Organized Transfers of Plants as One Form of Control of Pneumoconiosis, by L. Kurskini.

CZECH, per, Prac Lek, Vol 19, No 1, 1967, pp 74-78.

PROJECT 48985

Incidence of Pneumoconiosis in the Bosnian-Slavonic Coal Mines (Rad) and Factors Leading to its Quick Development, by B. Sklesky.


PROJECT 48986

Relationship Between the Type of Workplace and Occupation and the Development of Pneumoconiosis in Coal Miners, by J. Rosmanith.


PROJECT 48987

Effect of Sodium Fluoride on pH of Saliva, by Z. Simanjika.


PROJECT 48988

Influence of Ethyl Alcohol on the Course of Brain Edema After Injuries, by F. Musil.


PROJECT 48989


DANISH, per, Tandlaegebladet, No 64, 1965, pp 845-863.

PROJECT 48990

The Effect of Toothpaste Containing Sodium Monofluorophosphate with Controlled Brushing of the Teeth, by I. J. Moller.

DANISH, per, Tandlaegebladet, No 72, 1968, pp 717-755.

PROJECT 48991


DANISH, per, Ugreskr Laag, No 130, 1968, pp 1117-1120.

PROJECT 48992


PROJECT 48993
DUTCH, per, Folia Med Neerl, No 9, 1966, pp 144-147
HEW XIII
7-15-69

Food Research in Behalf of the Dutch Army and Navy, by E. W. Helleandoorn.
ACSI-J-67-T87

Shrimp Studies and Shrimp Sitting, by R. Roddeve, H. J. de Baer.
NII Ref: 1968.122.000 (1966)

Resistance of Catfish (Ameirus nobilis) to Sudden Temperature Changes, by N. Charlton.
*USDI/BCF TT 69-52079

A Cercus Cyclistica in Tahiti in 1964, by V. Lonrot.
*V1025-514.

FRRENCH, per, C R Acad Sci, No 266, 1969, pp 341-344
HEW XIII
7-8-69

Unconventional Protein Sources, by Michel Conode.
FRRENCH, per, Cooperation Technique, Nos. 56-57, Oct 1969.
*USDI/BCF TT 69-52080

Methodological Trial of Analysis of the Sleep Cycle, by K. Issott.
FRRENCH, per, Thetaphe, Vol 15, No 2, 1969, pp 137-140
HEW XIII
8-4-69

Problems of Jabubashi Hospital Exposed, pp.
*J64 4941

Sleep Intentation in the Rat by Subcutaneous Injections of Ambient Temperature Applied to the Skin of Antiquarium of Neurostimulators and Hypostasis, by G. Streichenberger.
FRRENCH, per, Medicine et pharmacie experiment, Vol 17, 1969, pp 210-220.
*NASA T T-12,663

Study of Changes in Blood Group Antigens in 11 Cases of "Refractory Anemia", by Ch. Salmon.
HEW XIII
8-14-69

Canned Tuna, by A. de Torquat.
*CFSTI TT 69-52059

Shrimp Culture.
*CFSTI TT 69-52061

Shrimp Technology, by H. P. Hansen.
*CFSTI TT 69-52062

Experimental Shrimp Culture Project in Australia,
*CFSTI TT 69-52063

Possibilities in the Development of the Battle Against Tuberculosis in West Africa. Memorandum on the Participation of the OCGE in the Development of the Battle Against Tuberculosis in Black Africa.
DIA IN 1169-69


DIA W 1189-69

Sleep Disorders in Patients Presenting Confusion and Dementia Syndromes, by G. C. Lairy.


HEW NIH 7-26-69

Telemetric Electroencephalographic Recordings from Epileptic Subjects while at work, by E. Vidart, S. Coler.


Dept of Navy ARL JHU T-2497

Proton Fish in Hamburg.


*URS/UCF WT 69-52075


HEW NIH 7-37-69


HEW NIH 7-17-69

Biological Foundation for Preserved Connective Tissue Homografts; Clinical Use of Preserved Tendon Grafts in the Surgery on the Hand, by K. E. Seiffert, 144 pp.


NASA 1777/77

The Effect of Light on Workmen, by G. H. Herbst.

SSCN, per, Elektrizitat, No 11, 1968, pp 250-257.

HEW 7-20-69
The Fluorine Content of Plant, Animal and Other Substances From Areas with and Without Fluorine Emission, Report II. The Fluorine Content of Human Foodstuffs and of Beverages From Areas Without Fluorine Emissions, by W. Oelschlager.


HEW NIH 7-29-69

Motor Functions of the Mesencephalic Tectum and Tegmentum, by W. R. Hess.


HEW NIH 7-12-69

Artificial Fluoridation of the Water at Aigle: Recorded Results, by A. Held.

GERMAN, per, Schweiz Mschr Zahnheilk, No 77, 1967, pp 478-491.

HEW NIH 7-24-69

Development of Fluoridation of Drinking Water in Europe, by H. Lingelbach.


HEW NIH 7-36-69

Primary Literature in the Field of Radiation Protection, by H. Schoel.

GERMAN, rpt, S9S-17/68

NEC ORNL

Neutron Probe in Connection With the Radiometer W/0-05 for Radiation Protection Measurements, by J. Stouer.

GERMAN, rpt, S9S-18/68

NEC ORNL


GERMAN, rpt, S9S-20/68, Dec 1968.

NEC/ONRL-TR-2151-69

Skull-Brain Trauma and Alcoholism, by E. Amann.


HEW NIH 7-22-69

Social-Medical Aspects of the Fluoridation of Drinking Water, by M. Guthertz.


HEW NIH 7-19-69

Dental Health Service in Socialistic Countries: Shown on the Example of Czechoslovakia, by P. Hippchen.


HEW NIH 7-21-69

Epidemiological Studies on the Relations Between the Fluorine Content of Drinking Water, Dental Fluorosis and Caries Incidence, by W. Kuehel.


HEW NIH 8-2-69

New Therapeutic Possibilities in Dust Diseases, by H. W. Schlipkoeter.

GERMAN, per, ZBL Arbeitsmed, No 16, 1966, pp 221-226.

HEW NIH 7-10-69

Clinical Experiences in the Treatment of Bronchopulmonary and in Particularly Silicosis-Caused Diseases, by R. Volk.


HEW NIH 9-15-69

Is There Sufficient Oxygen Supply in the Brain Tissue Following Severe Brain Trauma?, by R. A. Frowein.


HEW NIH 7-30-69
Metabolism of Water in the Agent, by J. A. Huet.
ITALIAN, per, Giornale di Gerontologia, Vol 12, Aug 1964, pp 245-299.
*NASA TT F-12,666

*ABC/ITA 1743

Data from Ionizing Radiations Associated With Space Flights Carried out With Human Crows. Note I. Notes on Ionizing Radiations in Extraterrestrial Space, by G. Agati.
*ABC 1143

Cuban Physician Interviewed by Crista, by Bruno Crista, 5 pp.

Conformational Transitions and Actions of Drugs, by L. Rossini.
ITALIAN, per, Quad Ric Sci, No 47, 1968, pp 231-254.
*HEW NIH 7-41-69

Research on the Cause of Secondary Disease in Bone Marrow, by T. Kuroyanagi.
HEW NIH 7-11-69

Topical Application Trial in School Children With Acidulated Phosphate Fluoride Solution (Luride Phosphate Topical Solution), by A. Gausen.
NORWEGIAN, per, Norske Tanmlaegforn Tid, No 78, 1969, pp 483-485.
HEW NIH 8-10-69

25 Years of Fishery Research Pertaining to Inland Waters, by B. Dabrowski.
Polish, per, Gosudarka Rybna, Vol 21, no. 7 (217), pp 5-10, 1969.
*USDI/BIF TR 69-50024
The Prevention of Dental Caries with Fluorine, by K. Badzian-Kobosowa.
HEW NIH 7-23-69

Alcoholic Intoxication as a Factor Complicating Acute Traumatic-Cerebral Injury, by L. Imielski.
HEW NIH 7-22-69

Computer, Better Equipment Urged For Medical Field, by Anna Nowak, 9 pp.
POLISH, per, Radioteleskop, Warsaw, 10 Aug 1969, pp 2202-2206.
HEW NIH 7-23-69

Results of the Administration of Fluoride Tablets to 78 Children of San Jose Del Rincon, Santa Fe, Argentina, by Y. Borle.
HEW NIH 7-39-69

Trends in Medical Research Analyzed, by Victor Sahleanu, 9 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, Apr 1969, pp 38-44.
JPRS 48751

Aims, Prospects of Microbiology Reviewed, by A. Nestorescu, 8 pp.
JPRS 48802

The Dangerous Horns of the Snail.
SERBO-CROATIAN, per, Front, Dec 1968.
DIA US 1099-09

Health: Service Role in War, Disasters Described, by Bozidar Pejuskovic, Borivoj Vrascario, 10 pp.
SERBO-CROATIAN, per, Narodno Zdravlje, Belgrade, No 4-5, 1969, pp 126-129.
JPRS 48820

The Lung Washings. Intra-Bronchial Therapy; Lung Wash, Bronchotherapy, by J. Garcia Vincente. 20 pp.
SPANISH, bk, El Lavado Pulmonar, 1936.
AEC tr 70137
CSFTI

Significant Clinical Reports From Bygone Times in Denmark, by S. A. Gamuelstoft.
HEW NIH 8-6-69

Mongolism, With Particular Reference to its Etiology, by J. Keller.
SWISS, rpt, Buchdruckerei H. Borsigs Erben Ag, 1938, pp 1-23.
HEW NIH 8-6-69

Documents Concerning Medicine and Chemistry.
VIETNAMESE, rpt, Dai Cuong ve Lipid, Chuyen Moi Trat, Chuyen Moi Lipid, Dai Cuong Giai Luong, 1964, 94 pp.
ACSI 5-6934

Rules for Controlling Insects, Disease Outlined, by Nguyen Truong Khoat, 5 pp.
JPRS 48986

Effect of Tetracycline on Protein and Nucleic Acids Synthesis in Escherichia Coli.
RUSSIAN, per, Biokhimiya, Vol 34, No 7, 1969, pp 403-408.
ACSI-J-7284
ID 2204007469

RUSSIAN, per, Dok Ak Nauk SSSR, Vol 185, No 5, 1969, pp 856-859.
*NASA TT F-12,659

NRL Rep. 5809.95 (T 6035)


A Study of the Conditions for Obtaining Uniform Drops of Size (1.0-4.0) x 10^{-3}a, by N. I. Virodovna, K. K. Shabalin. RUSSIAN, per, Izv VUZ Khim i Khim Tekhnol, No 4, 1969, pp 657-659. NLL Ref: 30231 (11/9)

Forms of Organization of Chemical Production, by J. P. Serisoff, A. S. Bayn, 14 pp. RUSSIAN, per, Khimicheskaya Promeshchennost, Moscow, No 7, 1969, pp 3-8. JPRS 46897

Production and Application of Cyclic Isomers of Polyisoprene, by V. V. Markov, I. A. Terevkovski. RUSSIAN, per, Lenso Mat i Khim Prim., No 5, 1969, pp 19-23. NLL Ref: 30502 (11/9)


Pulsed Photoexcitation of Photochromic Spiropyranes, by T. A. Shakhverdov. RUSSIAN, per, Teoreticheskaya i Experimental'naya Khimiya, No 3, 1969, pp 421-424. *JRSI-7-7338


Polyamido Acids Obtained on the Basis of the Dianhydride of 1,2,4,5-Neopentane-Tetra-carboxylic Acid and Aromatic Diamines, by Ye. P. Fedorova, Ye. I. Prokhorova.
NATO TT F-12,601

Photolysis of Some Precursors of Isocyclic Acids in the Presence of Polyphosphoric Acid, by Ye. N. Laptinskaya.
NATO TT F-12,601

Study of Infrared Absorption Spectra of Polymers Based on Alphaplanes and Formaldehydes During Their Polymerization and Thermal Degradation, by L. I. Konarova, V. V. Korshak, et al. 6 pp.
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, No 4, 1967, pp 511-514.
AIR/FTD/HT-13-24-69

Progress in the Creation of Composite Materials from Oxides and Metals, by P. P. Budnikov.
*NASA TT F-12,654

The Irradiation Effect on Ceramic Materials, by N. S. Kostrikov.
*NASA TT F-12,651

AIR/FTD/HT-23-1104-68

Hydroboration, by C. Chang. 18 pp.
CHINESE, per, Hua Huaeh T'ung Pao, No 12, 1962 pp 6-12.
AIR/FTD/HT-23-996-68

Preparation of Gaseous Mixtures of SO2 with Air in the Concentration Range of 0.1-1000 ppm, by J. Horevaz.
NL Ref: 7-951.97 (CA Trans 203)

NASNL-(NiI(OH)(CO3)OH)-P2O5-H2O System
*ACC-LSL

Crystal Structure of Dicyanomethanide Complex of Manganese and Divalent Copper Having the Formula, Ca(CN)2(Cu-Cu)(Ni-I)3, by K. Iwana Jurco.
*ACC-LSL

Application of Radioactivation Analyses to Radioecological Studies, by A. Tourer, A. Fer.
AEC tr 7041

9PSI

AEC BNFL-Tr-34

The Detection of Gas Leaks by Means of Radioactive Tracers.
2 - Recent Researches into the Detection of Gas Leaks in Underground Wells With the Aid of Na-24 or Another Radio-isotope, by G. Agebao, G. Benincasa.
FRENCH, per, European Atomic Energy Commission - EUR. 4056E
BISI 782-2

The Detection of Gas Leaks by Means of Radioactive Tracers.
FRENCH, per, European Atomic Energy Commission - EUR. 4056E
BISI 782-1

AEC ORNL-Tr-2187-69

Anisotropic D(d,n)Me Reaction Yields in Copper Single Crystals, by H. Fischer.
GERMAN, preprint.
*ACC AER
Characterization of Carbon and Graphite Through Analysis of the (001) Rontgen-Interference, by N. Christu.
*AEC/ORNL-TR-3209

State and Transport Properties of Argon Plasmas, by Klaus Pencari.
GERMAN, per, Chemie-Ing Tech, No 34, 1962, pp 84-87.
*AFCRL

GERMAN, per, Radiochim Acta, No 4, 1965, pp 197-203.
AEC/BNL-7-30-69

AEC/BNL-7-39-69

*AEC ASR4

Metal Amines and Metal Nitrides System Ni-N, by Harry Hahn.
*AEC ORNL

The Kinematics of Chemical Reactions, by A. Ding.
*AFCRL


AEC/ANL/tr 1110

CSTI


ITNLLW, rep, Comitato Nazionale per l'Energia Nucleare (Italy).

AEC tr 1045

CSTI

Chromatography of Peptides, by Y. Yaoi.


*NASA TT F-12,660

In the Intramolecular Rearrangements of Phenylhydroxylamine, by S. Hashimoto.

JAPANESE, per, Kagaku Kenkyu Hokoku, Vol 1, No 3, 1964, pp 118-121.

NLL Rep: y022.49 (17)

Thermal Decomposition of Na₂ClO₃ and Reactions with H₂SO₃, HCl and Organic Compounds, by H. Osada.


*NASA TT F-12,679

Properties of Trioxide Tetroxide Powder Obtained from the Reduction of Sodium Salts, by T. Nakagawa. 15 pp.

JAPANESE, per, Kagaku Zasshi, Vol 67, No 5, 1944, pp 300-305.

NLL tr F-12,822

Measurement of Liquidus Line in Yttrium Oxide - Aluminum Oxide System by T. Naguchi, M. Mizuno.


CISB

J. Sci. Trans 5022D

Correlation between Catalytic Activity of Mixed Metal Alloys and Its Surface Texture and Structure, by J. Nakaguchi.


CISB tr F-12, 4

Earth Sciences & Oceanography

The Influence of Systematic Errors of Natural Stations and of the Secular Motion of the Pole on Results in Determining the Secular Variations of Longitude, by H. V. Delretrum. RUSSIAN, rep.

KAS RT F-12,200

Soviet Miners are Accelerating Production, 7 pp.

RUSSIAN, per, Agitator, Moscow, No 15, 1969, pp 23-25.

JPRS 48926

Discovered Gas and Oil Reserves Described, 5 pp.

RUSSIAN, per, Agitator, Moscow, No 15, 1969, pp 30-31.

JPRS 48926
Interpretation of Ground Water of Typical Landscapes in the Caspian Lowland on Aerial Photographs, by B. V. Vinogradov, V. V. Kuznetsov, 81 pp. RUSSIAN, bk, Akad Nauk SSSR Laboratoriya Aerometodov, Primenenie Aerometodov Dilla Gruntovykh Vod, 1962, pp 34-68. ARM/FSTC/MT-23-530-68

Use of the Properties of the Soil Cover in the Interpretation of Ground Water on Aerial Photographs, by V. V. Kuznetsov, 19 pp. RUSSIAN, bk, Akad Nauk SSSR Laboratoriya Aerometodov, Primenenie Aerometodov Dilla Gruntovykh Vod, 1962, pp 80-89. ARM/FSTC/MT-23-393-68


Vegetative Remains from the Krivoy Rog Pre-Sambian Period, by L. S. Bolosars. RUSSIAN, per, DOK Ak Nauk SSSR, Vol 183, No 1, 1965, pp 190-199. NASA TT F-128-45


Interpretation of Different Types of Tundra From Aerial Photographs and Their Aerovisual Description on the Basis of Frost Jointing, by V. N. Andreyev, 25 pp. RUSSIAN, per, Geograficheskii Sbornik, Vol 7, 1955, pp 103-120. ARM/FSTC/MT-23-316-68

Modernizing the Drilling and Blasting Work at the Zapolyarnyjy Mine, by Ye. A. Grigor'yants, V. S. Levin. RUSSIAN, per, Pamy Zhurnal, No 6, 1963, pp 25-28. JFSTI TT 78-959


Seismic Waves During Exploisions. RUSSIAN, bk, Seismic Survey of Mining Explosions. 1964, Chapter 1.


Oceansological Research in the Atlantic. RUSSIAN, per, Oceanologicheskis Issledovaniya v Atlantike, 1967. DIA IN UU-69


On the Occurrence of Large Nickel Deposits of the Linear Type in a Small Ultrabasite Massif, by P. A. Syoyev, 6 pp. RUSSIAN, per, Razvedka i Okhrana Medr, No 10, pp 3-6, 1964. CFSTI TT 68-50628


Seismic Waves During Explosions. RUSSIAN, bk, Seismic Survey of Mining Explosions. 1964, Chapter 1.
Drift Circulation in the Zone of the Subarctic
Hydrological Front, by V. M. Grizinin. 12 pp.
RUSSIAN, per, Trudy Geodeznyii Institut,
Dept of Navy NOO Trans 169

Wind Induced and Thermohaline Circulation in
the Ocean with a Finite Depth, by
V. S. Ivanov.
RUSSIAN, per, Trudy Geodeznyii Institut,
Vol 79, 1979, pp 127-129.
Dept of Navy NOO Trans 169

Vertical Circulation of Water in the North
Tropical and Equatorial Zones of the Pacific
Ocean, by R. R. Helelevich.
RUSSIAN, per, Trudy Geodeznyii Institut,
Dept of Navy NOO Trans 169

The Hydrodynamical Model of the Kuril-Kamchatka
Trench, by P. V. Usovskiy.
RUSSIAN, per, Trudy Geodeznyii Institut,
Dept of Navy NOO Trans 169

A Stereophotogrammetric Instrument, by
G. V. Lozarev. 3 pp.
AIR/TID/AT-23-202-68

Underground Leaching - A Method for the
Economic Extraction of Uranium from
Low Grade Ores.
RUSSIAN/SPANISH, per, International Atomic
DIA LN 1227-69

Cartographic Representation of Loess Landforms
on Large-Scale Maps, by Jiang Mei-Xin, Yu Jia-Jun.
CHINESE, per, Acta Geodatica et Cartographica Sinica
Tr No 53, July 1969
AIR/AFCRL/69-0313

Brief Introduction to Some Basic Knowledge on
Saline Soils, by Ch'en, Qing-Sheng. 22 pp.
CHINESE, per, Tr LA, No 1, 1966, pp 35-40.
AIR/TID/AT-23-1108-68
JPRS 48911

Iran Oil Deposit in the Sauron Department in Algeria, by Z. Podskalsky.
CZECH, per, Rud., Vol 16, No 9, 1968, pp 309-315
JPRS 7638

Orthophoto Maps and Stereomaps.
Special Machine for Fixing Shallow Slopes.
FRAN~c, per, Tekhnilinnii Akakaslehti, No 11, 1968.
DIA IN 1172-99

Andriamena Chromium-Mining Project Described,
by Henry de Brie, 6 pp.
JPRS 48906

JNPC tr 7042

National Center for Oceanic Exploitation.
Dept of Navy NOO Contract Trans 25

Uranium Resources, Mining Problems Discussed,
6 pp.
JPRS 48906

ACIC-TO-1369

Ground Frost: A Listing and Evaluation of More Recent Literature Dealing with the Effect of Frost on the Soil, by H. L. Jessberger.
*ACST-4-7390
*FSTC-87-21-311-70

Topography and Its History, by K. Breitinger.
ACIC-TO-1390

Geology of Chile, by W. Zent.
GERMAN, FK, Geologie von Chile, 257 pp.
*CSV 49 69.59-930

Comparative Investigations of Mechanical Processes in Earthquake Waves as Indicated on Short- and Long-period Seismographs.
by Bohumir Akahe, 154 pp.
CZECH, per, Vergleichende Untersuchungen aus Aufzeichnungen kurzerperiodischer und langerperiodischer Seismographen, 1969.
*CSVT 49 69.52-73

On the Figure and Gravity Field of the Earth, Part II, by K. Voss.
ACIC-TO-1573

On the Figure and Gravity Field of the Earth, Part III, by K. Voss.
ACIC-TO-1523

ITALIAN, per, Minerali Depositi, Vol 1, 1969, pp 317-333.
JNPC tr 7034

Producing More Coal with Better Technology Urged, by Chon In-ch'ol, 7 pp.
KOREAN, per, Rodong Sinmun, Pyongyang, 2 Aug 1969, p 2.
JPRS 48936

Promotion of Coal Mining Industry Urged, 10 pp.
KOREAN, per, Rodong Sinmun, Pyongyang, 2 Aug 1969, p 1.
JPRS 48936

The Problem of Determining the Accuracy of the Bouguer Anomaly, by A. Grobelny.
ACIC-TO-1532

Dept of Navy Nau Contract Trans 23


Dept of Navy Nau Contract Trans 23

Results, Prospects of Mining Industry Viewed, by Mikhail Anats, 8 pp.


JPRS 47898


RUSSIAN, per, Vyata Economica, Bucharest, 4 Sept 1969, pp 3, 5.

JPRS 47899

Are the Sava and Danube Overflowing - Ten Centimeters to Flood Stage C. SERBO-CROATIAN, per, Borba, March 1969

JL 20-01-69

Geological Aspects.

SPANISH, per, Aspectos Geograficos del Estado Quariao. 1965.

DIA LN 1093-59

Studies of the Nature and Physical Concentration of Transferrable Quantities in Spain.


DIA LN 1427-59

Ecological and Phycoseiological Analysis of the Savannah at Los Biological Station. Climate Changes Produced by River Catchment.

SPANISH, per, Sociedade Venezolana de Ciencias, Nos 113-114.

DIA LN 1959-59


ARC-Tr-7092-69

Self-Adjusting Decoding Automata Examined, by V. I. Zarevny, 6 pp.


JRS 47957

Microcontrol and Diagnosis of Malfunctions in Digital Computers, by A. F. Volkov.

V. A. Yosschenkov, 7 pp.

RUSSIAN, per, Akademiya Nauk SSSR, Moscow, No 4, 1969, pp 750-753.

JRS 47957

Electrophysical Apparatus.


AGST-J-6107

FSTC-HE-23-882-68


ARM/FSTC/ID-23-383-68


ARM/FSTC/HE-23-972-62

Design of a Static Flipflop, Which Retains Information When the Current is Interrupted, by I. A. Kovalev'chuk, 15 pp.


ARM/FSTC/HE-23-372-69


RUSSIAN, per, Kharkov, Institut Gornogo Mashinostroyenia, Avtomatiki i Vychislitel'nye Tsyeniki, Tihor 1 Mismen y Avtomatiki, No 2, 1966, pp 140-143.

ARM/FSTC/HE-23-1115-68
Application of the Methods of Coherent Optics and Holography to the Problem of Antenna Engineering and Data Processing.

RUSSIAN, per, Nauchno-Tekhn Obshchestvo Radio-tekh i Elektronika (Antennaya Tekhnika), No 2, Feb 1969, pp 33-54.

A "Non-destructive Memory" Logic Element that Preserves Information During Power-supply Interruptions, by V. A. Barinov, Yu. B. Mislukhin.

RUSSIAN, per, Prioryt i Sistemy Upravleniya, No 12, Dec, pp 50-57,

Dept of Navy AFR/IMU 2-2311


AIR/PD/HM/23-926-68 Vol 1 of 2


AIR/PD/HM/23-926-68 Vol 2 of 2

Design of Digital Control Systems (Selected Portions), by V. P. Petrov. 96 pp.


AIR/PD/IT/23-109-69


RUSSIAN, per, Radiotehnika, No 3, 1966, pp 77-83.

AIR/FSTC/IT/23-312-69


RUSSIAN, per, Radiotehnika i Elektronika, No 6, 1966, pp 1045-1056.

Dept of Navy AFR Trans 5089(a)


RUSSIAN, per, Radiotehnika i Elektronika, No 6, 1966, pp 1045-1056.

Dept of Navy AFR Trans 5089(a)

A New Station in the Port of Odessa

The Operation of the Underwater Television Outfit "Krab-1".

RUSSIAN, per, Transportnye Sredstva, No 4, 1969.

AIR EN 12-37-69

Automating the Input of Script into Computer, by L. N. Kamal. 5 pp.


AIR/PD/IT/23-119-68


NLL Ref: 8712.4 (5546)


AIR/PD/IT/23-131-69


RUSSIAN, per, Tsifrovaya Vychislitel'naya Tekhnika i Programirovanii, No 2, 1967, pp 56-65.

AIR/PD/IT/23-1340-68


RUSSIAN, per, Vestnik Statistiki, Moscow, No 7, 1969, pp 78-81.

JFRS 46784
A Device for Modulating Audio Frequency Signals, by J. Felix. 7 pp.
AIR/PTD/MT-23-132-66

A Device for Transmitting and Receiving Δ-Modulated Data With Error Correction, by
G. N. Kazyreva. 5 pp.
AIR/PTD/MT-23-237-68

Long Term Optical Memory Device, by K. Drachev.
RUSSIAN, Patent 220,315.
*ACSI-J-7340
*FSTC-IT-23-198-70

Cyclotron-type Millimeter-Band Amplifier,
by I. I. Antakov.
RUSSIAN, Patent 224,713.
*ACSI-J-7361
*FSTC-IT-23-197-70

Electrical Measurement of Mechanical Vibrations,
by Chin-Ch'eng Fang. 10 pp.
AIR/PTD/MT-23-1126-68

Five-Stable-State Trigger and its Application
in Decade Counter, by Shih-Chung Yang. 7 pp.
AIR/PTD/MT-23-1180-67

How to Rig a Single-Transistor Receiver for
Better Sound, by Pao-Pen Fung. 4 pp.
AIR/PTD/MT-23-1012-68

Model YJD-4 Dynamic Resistance Strain Gages.
6 pp.
AIR/PTD/MT-23-678-68

Resistance Strain Plates Electrical Engineering.
5 pp.
AIR/PTD/MT-23-678-68

An AC Sweep Frequency Device, by Pung-Hang Li.
10 pp.
AIR/PTD/MT-23-33-69

Electro-mechanical Pulse Analyzer to Prevent
inadequate Resources, by A. Bilewicz, E. Gallier.
FRENCH, per. Communication et Electrotechnique,
AIR/MT-23-1621-66

On the General Theory of the Link Structures, by
Kilhel Schuissler.
GERMAN, per. Archiv der Elektrischen Ubertragung,
No 2, Aug. 1968, pp 361-367.
*AFRL

Development Tendencys in Metal Electrolysis, by W. Schultz.
O.A. 703

Economic Aspects of Electrochemical and Electrothermal Processes, by W. Haiger.
OEBB
O.A. 1001

The Application of Night-current to Electrolysis,
by W. Schultz.
OEBB
O.A. 1005

The Power Requirement of Electrochemical and
Electrothermal Processes, by K. Wilke.
OEBB
O.A. 920

Future Prospects for Electrochemical Engineering,
by H. Did.
OEBB
O.A. 1000
The List-Processing Technique to Generate a Compiler for the Hask 22 Electronic Computer, by Arpad Dettrich. 13 pp.
AIR/MT/47-238-69

Microwave Switching Circuits, by A. Kraszewski. 240 pp.
AIR/MT/47-238-67

POLSISH, per, Pontary, Automatyka, Kontrola, No 7, 1967, pp 331-333.
AIR/MT/47-238-68
RUSSIA, per, Pravylshenstv Armenii, Yerevan, No. 5, 1969, pp. 35-50.
JPRS 49845

JPRS 49896

JPL/SM-107/135-68

JPL/SM-107/143-68

JPL/SM-107/160-68

Soviet Standards for Thermal Power Stations and District Heating Networks, by V. N. Kuznetsov, 3 D. Militsuk.
JPL/SM-107/155-68

RUSSIA, per, Elektroenergetika Tsentrali Moskow, 1969, pp. 1172.
JPL/SM-107/157-68

JPL/SM-107/158-68
JPL/SM-107/142-68

JPL/SM-107/135-68

JPL/SM-107/137-68

The Effective Electrical Conductivity of a Two-Phase Liquid-Metal Flow, by N. D. Gavrilova, L. D. Dodonov, 7 pp.
JPL/SM-107/153-68

Investigation of Two-Phase Laval Nozzles, by I. P. Aladyev, I. M. Pchelkin, 7 pp.
JPL/SM-107/158-68

Nuclear Power Source Outlook Described, by D. J. Laskin, 7 pp.
JPL/SM-107/128-68

Results Detailed with Electronic Control of a Generator Set at Jenevilliers Power Station, by D. Hesse.
JPL/SM-107/206, pp 206-211, 1968

Operational Experience with Gas Turbines at the Farm Power Station, by A. Branden.


Construction of Thermoelectric Plant Progresses, by Martin B diro, 2 Apr 1969
DEA 49-70

Reactions of the Base of Fats and Various in Automobiles, by M. Baranov, 0. Monosudishis, 11 pp.


The Use of Alkali Hydrocarbon Derivatives as Additives for Lubricating Oils, by T. T. Grabchik, A. A. Vera, and A. A. Varga. 4 pp.


ACKNOWL. no., 1967-116-09


ACKNOWL. no., 1967-141-69


ACKNOWL. no., 7462


ACKNOWL. no., 1967-147-66

Chemico-thermal Processing in New Saline Mixtures on a Carbide Base, by G. Suschevski.


ACKNOWL. no., 1967-122-70
Effect of Thermal Mechanical Treatment on Properties of High-Strength Nickel-Base Steel, by V. S. Andreev.
JPRS 45697

AIR/IND/23-024-68 Vol 1 of 2

AIR/IND/23-024-68 Vol 2 of 2

Improving Organization of Metal Supply Discussed, by A. Chelpanov, 1 pp.
RUSSIAN, per, Materialno-Tekhnicheskoye Statistiki, Moscow, No 6, 1/2, pp. 1-12.
JPRS 45697

Corrosion of Silicion and Silicon Alloys.
By V. A. Tatarinov, V. V. Gerasimov, 182 pp.
RUSSIAN, Bk, korroziiya Tsirkonii i ego Alloyov, 1967.
AIR/IND/23-024-68

RUSSIAN, per, Rabochno-Shtampov, No 3, 1968, pp. 11-13.
JPRS 45697

Greater Economy in Use of Metals Proposed, by V. Sots, 7 pp.
RUSSIAN, per, Materialno-Tekhnicheskoye Statistiki, Moscow, No 7, Jul 1969, pp. 12-14.
JPRS 45819
RUSSIAN, per, Nefteyazhnik, Moscow, No 7, 1967, pp 3-11.
JPRS 48933

Determination of the Fatigue Limit in the Case of an Asymmetrical Stress Cycle, by P. I. Vashchenko, 10 pp.
RUSSIAN, per, Sibirskii Vsesoiuznyi Nauchnodoizdatel'nyi Institut, Sudostroenie i Morskije Sotrudeniya, No 2, 1966, pp 143-149.
AIR/FTD/MT-23-117-68

RUSSIAN, per, Novocherkask, Politekhnicheskii Institut, Avtomobil'nyi i Mashinostroenie, 1966, pp 117-120.
AIR/FTD/MT-23-32-69

AIR/FTD/MT-23-22-69

AIR/FTD/MT-23-277-68

Deformation Resistance and Stability of Deformation Distortions of Ceramic Alloys, by V. V. Orlovyizowa.
RUSSIAN, per, Poroshkovaya Metallurgiya, No 9, 1965, pp 81-89.
AIR/FTD/MT-23-65-66

RUSSIAN, rpt, Primeneenie Prirodnoho Gasa v Chemos Metalurgii, Metallurgiya, 1966, pp 9-19 - 1
BSI 6785 - 1

Use of Natural Gas in OH Furnaces, by Kh. L. Fridman.
BSI 6785-VI

Natural Gas in the Foundry, by N. S. Dukhan.
BSI 6785 - VII

The Use of Natural Gas in Refractory Furnaces, by N. S. Dukhan.
BSI 6785 - VIII

BSI 6785-X

RUSSIAN, bk, Svarka Plavleniym Titana i Yego Splavov, 1967, pp 1-144.
AIR/FTD/MT-23-132-68

Increasing the Wear Resistance of Steel Parts by Surface Hardening, by P. G. Aleksyev. 9 pp.
RUSSIAN, per, Stanki i Instrument, No 1, 1968, pp 7-9.
AIR/FTD/MT-23-935-68

The Structural Strength of the Aluminum-Magnesium Alloy AMg-6, by B. M. Mironov, A. A. Karpov. RUSSIAN, per, Sudostroyeniya, No 9, 1967, pp 14-16.
Dept of Navy NIC Trans 2686

RUSSIAN, per, Tekhnologii i Organizatsiya Proizvodstva, Moscow, No 3, 1969, pp 30-83.
JPRS 49026
Use of Preparation AMSR for Fabric Finishing, by R. Z. Dushkin.
RUSSIAN, per, Tekhnologiya i Organizatsiya Preparatsii, Kiev, No 4, 1969, pp 75-77.
JPRS 14597

Phase Formation Accompanying the Interaction of Transition Metals with Carbon in Fine Layers, by A. A. Bobad-Zahribin et al.
JPRS 14582

JPRS 14666

JPRS 14665

JPRS 14666
Investigation of the Sensitization Effect of Radiochemical Processes in Rubber, by V. T. Kozlov.
RUSSIAN, per, Vysok Soyd, No 5, 1968, pp 987-994.
*ACSI-J-7337
*FSTC-HT-23-139-70

CONSULTANTS BUREAU/PLENUM PRESS

AIR/PTD/HT-23-134-69

AIR/PTD/HT-23-1434-68

Study of the Electrostatic and Rheological Properties of Na Lubricant (Konstalin), by Yu. F. Denyagin, A. V. Dumens'kiy.
UKRAINIAN, per, AN URRR, Dopovidi, No 7, 1960, pp 926-927.
AIR/PTD/HT-23-224-68

Electron-Beam Welding of Polyethylene, by P'an, Ch'i-lun, Kang, Chin-lun, et al.
CHINESE, per, Ch'ing Hua Ta Hsueh Hsueh Pao, Vol 11, No 2, 1963, pp 15-34.
AIR/PTD/HT-23-802-67

The Mechanism of Fracture in Pearlite, by V. Zenik, Z. Kaderavek.
CZECH, per, Hutn. Listy, Vol 6, No 5, 1951, pp 211-220.
BISI 7122

Experience with the Operation of the 150 ton Tandem Furnace in the Steel Mill of the NKG Plant in Ostrava-Kuncklo, by Z. Bohu, et al.
BISI 7210

Conditions for Hot Working in Steel Stubs, by R. Polik, et al.
AIR/PTD/HT-23-385-68

BISI 7257

Investigation into the Vacuum and Heat Regime of the Sintering Layer, by J. Hancl.
BISI 7640

Quality of Steel for Oriented Transformer Strips, by D. Basky.
BISI 7641

The Gas Volume and Pressure Conditions in Tandem Steel Furnaces, by V. Bulina.
BISI 7642

Studying Non-Uniform Ingot Deformation in Laboratory Conditions, by Z. Zamylovsky.
BISI 7643

Rolling and Roll-Profile Design for Flat Shapes in the Klement Gottwald (Vitkovice) Steelworks-VZKG, by J. Veselik.
BISI 7088

Titanium Carbides as a Cause of Knife-like Corrosion, by V. Chal, I. Kasava, et al. 20 pp.
CZECH, per, Kovove Materialy, No 1, 1968, pp 21-34.
AIR/PTD/HT-23-385-68

CZECH, per, Kovove Mat., No 6, 1968, pp 571-593.
BISI 7649
The Calculation and Physical Sense of Activation Energy Values by the Bainitic Transformation, by P. Haud.
CZCH, per, Kovov. Mat., Vol 7, No 1, 1969, pp 3-16.
*BISI 7611

Diffusion of Carbide Forming Elements in Alloyed 12% Chromium Steels, by B. Million.
*BISI 7622

Distribution of Ingredients Between Phases of the Fe-16C Eutectic Mixture, by R. Manensky.
*BISI 7623

The Effect of Impacts on Mechanical Properties of Tool Steel 19 721, by K. Polak.
CZCH, per, Kovov. Mat., Vol 7, No 1, 1969, pp 74-86.
*BISI 7620

Technical and Economical Conditions of Production of Corrosion-Resisting Steel Strip in Czechoslovakia, by E. Cermeny.
BISI 7301

The Tube Drawing Reduction Mills, Their Development and Today's Importance, by G. Decker.
CZCH, npt, Sbornik Symp. "Stiefel VZKG-60 let" *BISI 7625

*BISI 7631

Forging of Bevel Gears, by J. Bohacek.
CZCH, per, Strojirenska Vyroba, No 10, 1967, pp 739-743.
*AISI 1-7327
*PSTC-HF-23-131-70

Evaluation of the Resistance of Steel to Brittle Fracture From the Results of Tests Carried out With Nitrided Specimens, by J. Vrtel.
CZCH, per, Strojirensvi, Vol 13, No 7, 1968, pp 520-527.
BISI 6933

Calculating Time-Limited Fatigue Strength Through the Safety Factor, by V. Vacek.
CZCH, per, Strojiresni, Vol 19, No 1, 1969, pp 3-16.
*BISI 7615

Effect of Self-Tempering Upon the Intensity of Microdeformation in Surface Hardening of Steels, by O. Jakubík, et al.
*BISI 7618

The Metalurgy of Fillet Welds and of Fusion Welding the Austenitic-Nickel-Chromium High-Temperature Steels, by S. Hornak.
*BISI 7619

The Use of Gluconato Compounds in Alkaline Baths for the Corrosion and Electrolytic Derusting of Iron and Steel, by M. J. Reitj, J. L. J. Terwloot.
BISI 7353

Contributions to Study of Temperature Evolution in Slags Passing Through Furnaces, by M. Rosiers et al.
BISI 7314

Applications of Radioactive Tracers in the Use of Refractories, by J. P. Vidal, et al.
BISI 6917

Strain Aging of Iron-Carbon Alloys, by J. M. Dorlot
BISI 6856

Desulphurisation of Basic-Bessemer Pig by Sodium Carbonate Through a Suction Cup, by J. Wanpach.
*BISI 7592

Rapid and Non-Destructive Determination of Oxygen in Steels by Radioactivation, by J. Ferdiçon.
BISI 7472
A New Method for the Inspection and
Characterization of Steel, by R. A. Carey.
BISI 7594

Quality Control of Basic-Oxygen Steel, by
L. D. Cook.
BISI 7586

Prospects of Using Manganese Steels for Large Forgings, by K. A. Swain.
BISI 7590

Illustration of the Mechanism of the Formation of Silicides, by F. Derma.
FRNC, per., Vanden, No 9, 1966, pp 333-338.
BISI 7570

Influence of the Surface Structure of High-Strength Steel Wire for Pressed Concrete on the Stress-Corrosion Behaviour in a Warm Medium, by R. D. Firth.
BISI 6360

Result of an Industrial Use of Recasting Under Electrically Conductive Slag, by W. Antonio et al.
BISI 6244

Initial Stages of Dendritic Solidification in
BISI 7574
Searching of Iron Ores on Cranes, by M. Boucraut & Vodoch. 
*ISI 7209*

*ISI ORL*

*ISI 6761*

*ISI 7463*

*ISI 7073*

*ISI 7427*

*ISI 7367*

*ISI 6704*

*ISI 7105*

*ISI 7695*

*ISI 7661*

*ISI 7650*

*ISI 7383*

*ISI 7183*

*ISI 7487*

*ISI 7659*
Field of Application of Stabilized Zincium Oxide as Solid Electrolyte for the Electrochemical Determination of Oxygen in Water; Use, by C. Freyer, et al.

*GERMANY, per; Arch. Eisenw., Vol 40, No 9, 1969, pp 477-482.


*GERMANY, per; Arch. Eisenw., Vol 40, No 6, 1969, pp 477-487.


*GERMANY, per; Arch. Eisenw., Vol 40, No 6, 1969, pp 499-504.

In the Application of Conversion Coatings by the Roller Coating Process, by W. Nach.

*GERMANY, per; Jander Blache, Vol 9, No 1, 1968, pp 9-11.

BISI 7267


BISI 6808

Tar Formation Process and Coke Strength, by C. Krenk.


BISI 7609

Studies Aimed at Increasing the Productivity of Coke Ovens, by H. Schiess, et al.

*GERMANY, per; Brennstoff-Chemie, Vol 49, No 12, 1968, pp 364-

BISI 7595

Control of Production of High-Speed Steel, by E. Hume, H. Lindström.

*GERMANY, per; Stahl- und Eisen, Ber., Vol 4, No 2, 1964, pp 99-103.

BISI 7150

Experience With Crack Detection on Black and Bright Round Bars Using the Fourier Defectoscope and Cinegraph, by E. Putz, et al.

*GERMANY, per; Damp Techn. Ber., Vol 9, No 1, 1969 pp 14-58.

BISI 7462


*GERMANY, per; Damp Techn. Ber., Vol 51, No 7, 1967, pp 475-487.

BISI 7265


*GERMANY, per; Echographie, Vol 1, Jahr I., pp 38-62.

BISI 7600

Influence of the Grain Size on Steel Tendency, by S. Wild.

*GERMANY, per; Echographie, Vol 1, Jahr I., pp 63-82.

BISI 7561

Casting in Iron Moulds for the Production of High Quality Grey Cast Iron Components, by E. Bokovsky.

*GERMANY, per; Glasserische Technik, Vol 2, No 10, 1956, pp 223-233.

BISI 7190

Mathematical Description of High Temperature Coking in Horizontal Chambers, by K. Remis.

*GERMANY, per; Gluckauf, Vol 29, No 3, 1966, pp 103-119.

BISI 6983

Temperature Measurements in Coke Ovens with Ballad Thermocouples, by L. Gzanzak, et al.

*GERMANY, per; Gluckauf Forsch., Vol 30, No 2, 1969, pp 79-83.

BISI 7660

Sample Taking of Steel for Spectroscopic Control of the Melt, by K. H. Koch.


BISI 6944

GERMAN, sp, Preprint, IFAC symposium Indianapolis, 1967, BISI 7027

Automatic Planning of Coping Mills, by J. T. Bland, et al., GERNAN, per, Metall, No 9, 1968, pp 3-24, BISI 7202

Studies on the Compatibility of Uranium Mononitride with Molybdenum, Tungsten and Thorium Oxide at High Temperatures, by C. Politis.
GERMAN, rp, J, 485, 1968, BISI 7442

Fundamental studies of Materials for Semi-Hot Extrusion, by G. Fritz, P. Siegel.
GERMAN, rp, Metall, Vol 23, No 5, 1969, pp 443-448, BISI 7596

Continuous Slitting Method for the Determination of Tangential Residual Stresses in Tubes and Rings by A. Peter.
GERMAN, per, Metall, Vol 23, No 5, 1969, pp 443-448, BISI 7596

Stress-Corrosion Cracking Behaviour of Rust and Anti-Resistant Austenitic Steels in Alkali-Rich Metal Halide Solutions, by H. Wiegand.
GERMAN, per, Metall, Vol 23, Dec. 1968, pp 323-326, BISI 7596

Observations of Electrochemical Processes During the Corrosion Fatigue of Steel in Acid, by W. Endo, K. Koizumi.
GERNAN, rp, Metall, Vol 22, No 12, 1966, pp 375-380, BISI 7441

Contributions to Spot and Projection Welding of Steel Sheet Treated with Metals, by A. Eichelberger.
GERMAN, per, Mitt. Forschungsgruppe Blechverarbeit., Vol 9, July 1968, pp 127-134, BISI 7598

Determination of Final Wire Diameter in Flat Rolling of Round Wire, by W. Ley et al.
GERMAN, per, Mitt. K.-Walh.-Inst., Eisenforsch., No 20, 1968, pp 193-197, BISI 7599

GERMAN, per, Mitt. VGB, No 106, June 1967, pp 200-203, GERNAN, per, C.E.E. Trans 40, 1967

GERMAN, per, Neuw. pots., Vol 13, No 9, 1968, pp 513-517, BISI 7184

Effect of Strip Tension on the Quality of Cold Strip and Control of Strip Tension During the Rolling Process, by J. D. Sheskin, et al.
GERMAN, per, Neuw. pots., Vol 13, No 9, 1968, pp 531-534, BISI 7096

Automatic Planning of Coping Mills, by J. T. Bland, et al., GERNAN, per, Metall, No 9, 1968, pp 3-24, BISI 7202

Studies on the Compatibility of Uranium Mononitride with Molybdenum, Tungsten and Thorium Oxide at High Temperatures, by C. Politis.
GERMAN, rp, J, 485, 1968, BISI 7442

Fundamental studies of Materials for Semi-Hot Extrusion, by G. Fritz, P. Siegel.
GERMAN, rp, Metall, Vol 23, No 5, 1969, pp 443-448, BISI 7596

Continuous Slitting Method for the Determination of Tangential Residual Stresses in Tubes and Rings by A. Peter.
GERMAN, per, Metall, Vol 23, No 5, 1969, pp 443-448, BISI 7596

Stress-Corrosion Cracking Behaviour of Rust and Anti-Resistant Austenitic Steels in Alkali-Rich Metal Halide Solutions, by H. Wiegand.
GERMAN, per, Metall, Vol 23, Dec. 1968, pp 323-326, BISI 7596

Observations of Electrochemical Processes During the Corrosion Fatigue of Steel in Acid, by W. Endo, K. Koizumi.
GERNAN, rp, Metall, Vol 22, No 12, 1966, pp 375-380, BISI 7441

Contributions to Spot and Projection Welding of Steel Sheet Treated with Metals, by A. Eichelberger.
GERMAN, per, Mitt. Forschungsgruppe Blechverarbeit., Vol 9, July 1968, pp 127-134, BISI 7598

Determination of Final Wire Diameter in Flat Rolling of Round Wire, by W. Ley et al.
GERMAN, per, Mitt. K.-Walh.-Inst., Eisenforsch., No 20, 1968, pp 193-197, BISI 7599

GERMAN, per, Mitt. VGB, No 106, June 1967, pp 200-203, GERNAN, per, C.E.E. Trans 40, 1967

GERMAN, per, Neuw. pots., Vol 13, No 9, 1968, pp 513-517, BISI 7184

Effect of Strip Tension on the Quality of Cold Strip and Control of Strip Tension During the Rolling Process, by J. D. Sheskin, et al.
GERMAN, per, Neuw. pots., Vol 13, No 9, 1968, pp 531-534, BISI 7096
Advanets an ataxsi teteofIreratrcnal 14-sults of a modem fettn-S=ults in ;the PUsesng
- ac R~oolling
mill,
by
Paditarn, et al.
GERW, per, Stahl Eisen, Vol 89, Julae 12, 1969
of an Electzxnic Carputer,
by
Fralt Hengemr.
up 270-279.
(ERMAN, per, Stahl Eisen, Vol 89, 12 JuXne 1.969
8151
6622 pp
641-654.
*BSI 7608

Use of Plate Feeder Heads and of Covering Powders for Insulating the Heads of Killed Steel Sheet Slabs, by P. Artelt, et al.
BSI 7511

Operational Results of a Modern Medium-Sized Rolling Mill, by Pachtem, et al.
GERW, per, Stahl Eisen, Vol 89, June 12, 1969
pp 627-640.
*BSI 7608

GERW, per, Stahl Eisen, Vol 89, 12 June 1969
pp 641-654.
*BSI 7595


Contribution to improving the Dissolution of Line During Steel Making, by Orans. GERAN, per, Stahl Eisen, Vol 89, 10 July 1969 pp 772-776. *BISI 7612


Some Problems Related to the Use of Prestressed Concrete Steel Finially Quenched and Tempered in Oil, by K. Pilić. GERAN, per, Stahlbeton-Verlag Mitt, No 11, 1965, 10 up. BISI 7349


Two-dimensional Strength of Concrete, by H. Kupfer. GUM, per, Technische Hochschule München. Diss, No 75, 1968. BISI 7257

Behavior of Concrete under Biaxial Stress, by H. Kupfer. GUM, per, Technische Hochschule München. Diss, No 75, 1969. AEC/ORNL-Tr-2155-69


The Development of the Bio-Process up to the Continuous Biow, by T. Kootz, et al. GERAN, per, Biotechnology, Vol 1, No 2, 1969, pp 49-60. *BISI 7550

The Importance of New Line Products for the Blast Furnace Formation in Oxygen Converters, by H. H. Obst. GERAN, per, Tiefbetrieb. Z. Keram. Ind., Vol 92, No 9, 1968, pp 343-352. BISI 7614


Pressurized Cold-Atomized Type Burners for boilers of Medium and High Capacity, by G. Weber. GERAN, per, VDI. Mitt., No 110, Feb. 1967, pp 1-11. BISI 6364


Transcrystalline Stress Corrosion in Austenitic Manganese Steels Exposed to Chloride-Bearing Media, by A. Basumal. GERAN, per, Werkstoffe Korros., Vol 20, No 5, 1969, pp 389-396. BISI 7606

Determination of Small Amounts of Nitrogen with 4- (2-Benzyloxycarbonyl) Resazurin and of Zirconium with 2-Naphthol-Violet in Steel, by J. Stolz, H. Brand.


Dissociation Pressure of Bismuth in the System by Olaf Habke.


Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.

Dissociation Pressure of Bismuth in the System, by Olaf Habke.
Review of Research into Equilibria Affecting the Transformation of Molybdenum Steel, by K. Narita.
JAPANESE, per, Tetsu to Hagane, 54, No 6, 1968, pp 1553-1560.
*BISI 6582

Fracture Toughness and Heat Treatment Characteristics of Heavy Thickness Ni-Cr-Mo High Strength Steels for Nuclear Reactor Vessels, by Hiroshi Sasaki, Ichiro Tsuji.

The Intergranular and Isotope-Effect of Lithium in 441-Steel, by Yoshihiro Mori.
*BISI JAC5

*BISI JAC9-1962

JAPANESE, per, Nippon Kinkou, Vol 27, No 12, 1963, pp 539-596.
*BISI 6493

On the Influence of Resisting and Hydrostatic Pressure on the Residual Stress of Carburized and quenched Steel, by K. Motoyama, S. Yonemori.
*BISI 7630-1

On the Effect of Isothermal Hardening and Size on the Residual Stress of Carburized and quenched Steel, by K. Motoyama, S. Yonemori.
JAPANESE, per, Nippon Kinkou, Vol 33, No 1, 1969, pp 115-120.
*BISI 7630-3

*BISI 7573

*BISI 7652

*BISI 6298

*BISI 6582

On Mechanism of Formation of Zone of Negative Segregation (Generally Called 'Settling Crystal Zone') in Large Steel Ingots and Origin of Microscopic Oxide Inclusions in this Zone, by Y. Nakagawa, M. Monose.
*BISI 6845

Construction and Operation of Fukuyama Iron Works, by H. Nakano.
JAPANESE, per, Tetsu to Hagane, Vol 54, No 6, 1968, pp 796-817.
*BISI 7604

JAPANESE, per, Tetsu to Hagane, Vol 55, No 1, 1969, pp 59-68.
*BISI 7647
*BISI 7617

Structure and Properties of Intermetallic Phases Formed by the Transition Metal, by J. Nieniec.
*BISI 7591

Investigations of the Kinetics of Decarburization of Steel by Precipitation, by K. Mamo, J. Taboriski.
BISI 6255

BISI 7388

Investigations of Dust and Sulphur Dioxide Emission into the Air from Various Steelworks Departments, by U. Krouse.
*BISI 7629

BISI 7341

Consumable Electrode Melting, by A. G. Quarrell
BISI 7597

Studies of the Decarburization of Spring Steels and Ball Bearing Steels Under the Heating Conditions in Pusher Furnaces, by A. Crafti, C. Glotta.
BISI 7481

Recent Data on Metallurgical Industry Given, by I. Pavoni, 3 pp.
JPRS 43999

JPRS 43999

Thermal Diffusion of Elements and Compounds at the Surface of Steel, by F. J. Marhans.
BISI 7016

The Value of Charcoal for Blast Furnace Operation, by H. Bergren,.
BISI 7248

Carbonising in Charcoal Kilns and Local Small-scale Charcoal Burning, by H. Bergren.
BISI 7249

Sampling of Steel for Oxygen Analysis With an Immersion Mould, by S. Bergh, et al.
*BISI 7399

The Organization and Economy of Research, by K. E. Jakenberg.
BISI 6633

Studies of Changes in the Composition of Sulphide Inclusions in the Rolling of Ingots and Continuously Cast Billets to Finished Plate, by S. Bergh.
*BISI 7657

Mathematical Sciences

Topological Properties of Sets Connected with Approximation Theory, by Yu. A. Shashkin.
Dept of Navy APL/JHU CIB-3 T-592
KINF-A Program for Two-Dimensional Reactor Cell Calculations by the Monte Carlo Method, by J. Marti, 42 pp.
GERMAN, rept, EIR no 140, Aug 1968.
AEC/ORNL-TR-2155-69

IEEE

Stochastic Theory of Runs, by O. Ludwig.
GERMAN, per, Mittl Math Statist, Vol 8, No 1, 1956, pp 49-82.
HEW NIH 8-8-69

Pascal's Theory of Runs, by O. Ludwig.
HEW NIH 8-9-69

Pascal's Theory of Runs, by O. Ludwig.
HEW NIH 8-12-69

Industrial Architecture Affects Environment, 7 pp.
RUSSIAN, per, Arkhitektura SSR, Moscow, No 7, 1969, pp 25-27.
JPRS 48793

Progress in Rural Reconstruction Reviewed, 5 pp.
RUSSIAN, per, Arkhitektura SSSR, Moscow, No 7, 1969, pp 59-60.
JPRS 48764

Decree of Building Plans and Estimates Discussed, 10 pp.
RUSSIAN, per, Bulleiten Stroitelnov Tekhniki, Moscow, Jul 1969, pp 6-10.
JPRS 48923

Local Bodies Given More Power in City Planning, 6 pp.
RUSSIAN, per, Bulleiten Stroitelnov Tekhniki, Moscow, Jul 1969, pp 13-14.
JPRS 48923

RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 23, Aug 1959, p 4.
JPRS 48848

Improved Servicing of Motor Vehicles Sought, by A. Kikhaylov, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, Aug 1969, p 14.
JPRS 48953
DIA 56-105

Hydraulic Elements in Control Systems, by
RUSSIAN, bk, Gidravlicheskie Elementy v Sistemakh
Upravleniya, 1967, pp 1-255.
AV/STC/HT-23-117-69

The Development of a Moscow Transportation Hub.
RUSSIAN, per, Gorodskaya Khod Mok, No 9, 1969, pp 7-11.
DIA 55-19-10

Road Transportation for the Man juices.
RUSSIAN, per, Gorodskaya Khod Mok, No 9, 1969, pp 12-25.
DIA 55-20-10

Poor Work at Moscow Rail Junction Analyzed, 5 pp.
JPRS 48322

RUSSIAN, np, Izvestiya, Moscow, 9, 11 July 1969, p 3.
JPRS 48752

RUSSIAN, np, Izvestiya, Moscow, 16 Aug 1969, p 2.
JPRS 48,923

Determination of the Porosity of a Loose Assembly of Spherical Particles From its Structure, by G. M. Platonov.
*REC AERE

New Machines for Working in Permafrost, by V. I. Sanyakov, 7 pp.
RUSSIAN, per, Mekhanizatsiya stroitel'istsva, Moscow, No 8, 1969, pp 8-9.
JPRS 48869

RUSSIAN, per, Konervatizatsiya, Moscow, No 11, Jul 1969, pp 70-80.
JPRS 48611

Determination of the Permeability to Odors of Polymeric Packaging Materials, by V. S. Popovskiy, O. V. Lipis, 7 pp.
RUSSIAN, per, Konervatizatsiya i Obshchestvennaya Promyshlennost', pp 22-29.
JPRS/STC/HT-23-227-69

Ships and the Sea
RUSSIAN, np, Leningradskaya Pravda, 18 March 1969, DIA 1185-69

General Information on Thrusters, by Gurovich.
Dept of Navy MIL Trans 2579

12 Rotatable Chocks, by Gurovich.
Dept of Navy MIL Trans 2578

A Dynamic Investigation of One Type of Shock Absorbing Apparatus, by A. C. Ovchakov, 10 pp.
RUSSIAN, np, Mashinovedenie, No 1, 1968, pp 42-43.
ARM/STC/HT-23-288-69

Inventions advance construction industry, by S. S. Zaytsev, 9 pp.
RUSSIAN, per, Mekhanizatsiya stroitel'istsva, Moscow, No 7, Jul 1969, pp 1-7.
JPRS 48864

Quality of Machine Repairing to be Improved, by S. Ye. Rebakh, V. N. Zatov, 6 pp.
RUSSIAN, per, Mekhanizatsiya stroitel'istsva, Moscow, No 7, Jul 1969, pp 8-9.
JPRS 48864

RUSSIAN, per, Kharkov Politekhnich Institute
ARM/STC/HT-23-248-69
new construction machinery for Moscow described, by N. Ye. Kuz'ma, 11 pp.
RUSSIAN, per, Stroitel'stvo, Moscow, No 8, 1969, pp 20-29.
JPRS 48569

Improvements in USSR Lairy Industry listed, 10 pp.
RUSSIAN, per, Koshechnaya Promyslenost', Moscow, July 1969, pp 1-5.
JPRS 48569

RUSSIAN, np, Moskovskaya Pravda, Moscow, 12 Aug 1969, p 2.
JPRS 48564

the relations of the fleet and the port on the processing of ships package shipments in the port of Klapeda.
Experimental Unloading of the Motor Ship Cassia.
RUSSIAN, per, Kaspovoy Flot, No 2, 1969
DIA LN 115-69

RUSSIAN, per, na Stroykakh Rossii, Moscow, No 7, 1969, pp 48-42.
JPRS 48562

Promotion of Floating Construction Bases Urged, by V. Savshkik, 7 pp.
RUSSIAN, per, nauchno-teknicheskiye Obshchestva SSSR, Moscow, No 6, 1969, pp 8-9.
JPRS 48861

RUSSIAN, per, nauchno-teknicheskiye Obshhestva SSSR, Moscow, July 1969, pp 8-9.
JPRS 48868

Use of Floating Construction Bases Near Gor'kiy, by A. Lypin, G. Tomas, 7 pp.
JPRS 48923

Optimal Planning Requires Further Refinement, by A. Zvekov, 6 pp.
RUSSIAN, per, i, i, 1969, pp 6-11.
JPRS 49773

Discoveries, Inventions, Industrial Designs and Trade Marks.
RUSSIAN, per, Otkrytye, Isobretaniye, Promyslennyye Obrastal'nye Tovarnye Znaki, No 12, 1969, 17 pp.
AGS1-J-7050
ID 2204007569

Discoveries, Inventions, Industrial Designs and Trade Marks.
RUSSIAN, per, Otkrytye, Isobretaniye, Promyslennyye Obrastal'nye Tovarnye Znaki, No 13, 1969, 10 pp.
AGS1-J-7049
ID 2204005769

Improving the Increasing of Technological progress, by A. Yefimov, 14 pp.
RUSSIAN, per, Planovaya Promyshlennost', Moscow, No 7, 1969, pp 22-32.
JPRS 48793

Riga Ship Repair Yard
An Underground Bulldozer
From the Docks to Wara
Pictures of the News
RUSSIAN, np, Pravda, May 1969
DIA LN 186-69

Poor Quality of Railway Cars Reported, by V. Ivanov, 5 pp.
RUSSIAN, np, Eksp, Moscow, 22 July 1969, p 2.
JPRS 48898

Lowering the Cost of Repairs on a Scooping Unit.
RUSSIAN, per, Rechnoy Transport, Sept 1967, pp 31-32.
DIA LN 242-70

River Fleet Navigation Continues to Lag, 7 pp.
RUSSIAN, per, Rechnoy Transport, Moscow, No 7, 1969, pp 1-2.
JPRS 4822

Large-scale Transshipment Operations at Sea, by l. I. Roznov
*Dept of Interior
Bureau of Commercial Fisheries
Office of Foreign Fisheries

Dept of Interior
Bureau of Commercial Fisheries
Office of Foreign Fisheries

Dept of Interior
Bureau of Commercial Fisheries
Office of Foreign Fisheries

Dept of Interior
Bureau of Commercial Fisheries
Office of Foreign Fisheries

Dept of Interior
Bureau of Commercial Fisheries
Office of Foreign Fisheries
The Vortex Theory of a Lifting Surface, by N. N. Polyakov.
*Dept of Navy APL, JHU J-1360

Accuracy for Transport Conveyors.
And the Port Workers are Hurrying.
There are Loads, but no Barges.
RUSSIAN, per, Vodny Transport USSR
DIA IN 1186-69

Problems of Automation in Poland.
RUSSIAN, per, Przeglad, Jan 1969, pp 20-23.
DIA IN 1011-70

RUSSIAN, per, Zhelezodorozhnyy Transport, Moscow, No 7, 1969, pp 3-6.
JPRS 48822

Utility and Drinking Water System in Rustov.
RUSSIAN, per, Zhilishchnoe kommunal'noye khoz. No 10, 1969.
DIA IN 1202-69

Kiev Yesterday, Today and Tomorrow
Architectural Elements in Large Panel House Construction
RUSSIAN, per, Zhilishchnoe stroitel'stvo, No 2, 1967.
DIA IN 1203-69

Plant Heating in Large-Panel Buildings.
by A. Tynanskii, N. Strogan, 7 pp.
RUSSIAN, per, Zhilishchnoe stroitel'stvo, Moscow, Jul 1969, pp 14-15.
JPRS 40864

Design of Apartments for Northwestern Siberia,
by V. Stankevskii, 5 pp.
JPRS 48864

Prospects for Developing Available Housing, by
E. Molotilin, 7 pp.
RUSSIAN, per, Zhilishchnoe stroitel'stvo, Moscow, No 3, 1969, pp 5-7.
JPRS 48909

Inertial Spring With Hydraulic Shock Absorber,
*ATL/MD/RT-23-17-69

Hydraulic Transmission, by Shlykov.
RUSSIAN, Patent 209506.
*ACS-J-7341
*FTSC-67-186-70

Tracked Vehicle Suspension, by
V. V. Viznul'yanenko.
RUSSIAN, Patent 2177073.
*ACS-J-7350
*FTSC-67-185-70

Hydraulic Amplifier, by Wagner Lyuminov.
RUSSIAN, Patent 2177073.
*ACS-J-7350
*FTSC-67-185-70

Investigations in the Field of Electrodeposition of Metals.
Table of contents, title pages and article on p. 74-77.
Dept. of Commerce
National Bureau of Standards

Longest European Rivers Locked in Single System,
by V. Kruzyi, 5 pp.
JPRS 48909

Titanium Dioxide Plant Construction Expedited,
by A. Yashchenko, M. Cidelakh, 5 pp.
JPRS 48981

Design Problems of Diesel Engine Joint Connecting Rods,
by Le Po-Chung.
CHINESE, per, Shang Hai Chi Hsueh, No 10, 1962, pp 1-4.
*ACS-J-7450
*FTSC-67-183-70

Mechanization.
CZECH, per, Inzenyrske Stavy, No 6, 1967.
DIA IN 1046-69
The Building of Notable Bridges on the Adriatic Super Highway in Yugoslavia.  
CZCH, per, Ingenyrase Stavy, May 1969, pp 1-40.  
DIA IN 1280-69

Experiences in the Improvement of the Nitras and Tisava Rivers.  
CZCH, per, Vodni Hospodarstvi, No 3, 1968.  
DIA IN 1280-69

Index of Topics from Water Management.  
CZCH, per, Vodni Hospodarstvi, No 11-12, 1969, pp 9-10.  
DIA IN 1281-69

The Fourth and Fifth Europatours, by Jindrich Marek, 6 pp.  
CZCH, per, Vojenska Technika, No 1, 1968, pp 8-9.  
ARV/STC/IT-235-298-69

The Development of a Uniform European Automatic Faulting System and Its Effectiveness.  
CZCH, per, Zeleznici Doprava a Technika, Nov 1968, pp 72-73.  
DIA IN 1321-70

General Repairs Being Carried Out Without Interruption of Traffic.  
CZCH, per, Zeleznici Doprava a Technika, No 7, 1969, pp 128-129.  
DIA IN 1321-70

The Aerial Distribution of the Railroad Net in the Czech Railroad.  
CZCH, per, Zeleznici Doprava a Technika, No 7, 1969.  
DIA IN 1321-70

Underground Rapid Rail System in Munich.  
CZCH, per, Zeleznici Doprava a Technika, No 3, 1969, pp 10-11.  
DIA IN 1280-69

The Four Axle Tank Car.  
CZCH, per, Zeleznici Doprava a Technika, No 4, 1969.  
DIA IN 1280-69

Dredge Works in Durban.  
DUTCH, per, D' Ingenieur, 16 Sept 1966, pp 46-47.  
DIA IN 1281-69

Brazil bridges the Parana River.  
DUTCH, per, De Ingenieur, 16 Sept 1966, DIA IN 46-47

Port Facilities in South Africa.  
DUTCH, per, Nautica, Feb 1968, pp 140-149.  
DIA IN 1280-69

Completion of National Highway.  
DUTCH, per, Nautica, Feb 1967, pp 180-189.  
DIA IN 1580-70

Execution of Paving and Engineering Works.  
DUTCH, per, Nautica, Feb 1967, pp 380-389.  
DIA IN 1580-70

These VI Cities' Road and Highway Systems.  
DUTCH, per, Nautica, Feb 1969, pp 140-141-50-69.  
DIA IN 1580-70

Magnetism. Orientation Superstructures due to Mechanical Deformations. by Louis Michl.  
*ABC ONLY

French Technical Assistance to Fishing Industry, by Roland Noel, 7 pp.  
JPRS 48053

Tuna Catch, 50,000 ton Greatly Surpassed for the First Time, by M. Anger.  
FRENCH, per, France Peche, No 144, June 1969, pp 55-57.  
*CFSTI TT 69-52053

The Sealift System, Designed with the Cooperation of J. J. McNallen Associated, Would Make it Possible for Loaded 350,000-ton Ships to Pass Through the Suez Canal at its Present Depth.  
DIA IN 1270-69

Utilization of a Net Sound Probe in the Pelagic Trawling of Shrimp.  
*CFSTI TT 69-52066

A Few Aspects of the Shrimp Fishery Around the World.  
*CFSTI TT 69-52066
Pushers Convoys of from 10,000 to 13,000 tons soon on the Rhine.


DIA LN 1115-69


*AEC A14E

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70

Water Pollution. Treatment of Industrial Effluents, by Louis Antoine.

FRENCH, per, La Technique de l'Eau, No 257, 1968, pp 37-51.

Dept of Navy NIC Trans 2894

Bridge Over the Parana River.

FRENCH, per, Travaux, Apr 1966.

DIA LN 65-70
Soviet Auxiliary and Special Ships. Part II. Description of Types of Ships, by Siegfried Breyer.

- **DIA LN 1-70**
  - **Dept of Navy NIC Trans 2391**

Bridge Construction in the Cities of the USSR.

- **DIA LN 1-70**

Construction of Bridges on Highways and Urban Roads in Belorussia.

- **DIA LN 1-70**

The Three-Axle Vehicles of the Graf and Stift Company for the Austrian Army.

- **DIA LN 1-70**

Sea-Land Plan Construction of 20 Containers Ships.

- **DIA LN 1-70**

Hydrology-Hyrotechnology.

- **DIA LN 1-70**


- **DIA LN 1-70**

Hydrology-Hyrotechnology.

- **DIA LN 1-70**

The Container Transport System Has Proven Itself as Effective Already in the Beginning Phase.

- **DIA LN 1-70**

Research Work at Chemical Combine Fast Improve, by Fritz Lesbol, Inge Raabe, 6 pp.

- **DIA LN 1-70**

Use of Private Motor Vehicles Surveyed, 6 pp.

- **DIA LN 1-70**

Development of the Russian Inland Steamship Navigation.

- **DIA LN 1-70**

Driving Freight Flat into the Soil by Means of Vibrations, by Kptingovitch, Fritz.

- **DIA LN 1-70**

New Methods in Intermodal Freight Shipping and the Directions for Development.

- **DIA LN 1-70**

Shipping on the Balaton in Greater Exposition of the Transportation Museum.

- **DIA LN 1-70**

The Effects of Regionalization and Discontinuance of Small Traffic Railway Lines on Loading.

- **DIA LN 1-70**

Container Transport - Railway and Road Transportation of Goods.

- **DIA LN 1-70**

Aircushion Vessel on the Danube.

- **DIA LN 1-70**

Projected Width of Hungarian Super Highways.

- **DIA LN 1-70**

Development and Methods of Road Maintenance.

- **DIA LN 1-70**

The Experiences of Vehicles Transport Container Traffic.

- **DIA LN 1-70**
Welded Structure Steel Bridges at the Railways, HUNGARIAN, per, Vasut, No 4, 1969, pp 1-11. DIA IN 11-12-69

Welded Skulled Workers of the Future Trained, HUNGARIAN, per, Vasut, No 4, 1969, pp 12-15. DIA IN 13-12-69

One Man Car Checks by Radio, HUNGARIAN, per, Vasut, No 4, 1969, pp 16-22. DIA IN 14-12-69


Appraisal of Work on the Meteorological Stations in the Light of Natural Control, POLISH, per, Gazeta Geograficzna, Dla IN 12-84 39

Motorization Tasks in 1969, POLISH, per, Motoryzacja, pg 29-39. DIA IN 193-70

The Motorization Situation in Cities, POLISH, per, Motoryzacja, Feb 1969, pp 32-39. DIA IN 134-70


The Effect of the Hopper-Monitors on the Level of Mechanization, POLISH, per, Przegląd Metodologii Pracy, No 3, 1969, pp 1-5. DIA IN 203-70
Development of Electric Traction on Polish National Railways.  
Joubity Car Yard.  
POLISH, per, Przegląd Kolejowy Mechanizmy, No 3, 1969.  
DIA LN 1J3-49

Utilizing PWT Steam Locomotives Over the Period from 1969-1969.  
POLISH, per, Przegląd Kolejowy Mechanizmy, No 3, 1969.  
DIA LN 1J3-49

New 2T DC Electrical Locomotive.  
DIA LN 1J3-70

Model Directions for Strengthening and Streamlining the Functions of Control System in the Industry of the Polish National Railways.  
POLISH, per, Przegląd Kolejowy Przewozów, Febr 1969, pp 14-23.  
DIA LN 1J3-70

Minister Lewinski Describes Transportation Plans, by Piotr Lewinski, 13 pp.  
JPRS 40936

Assault Bridges Mounted on Tracked Vehicles, by P. Bator.  
POLISH, per, Przegląd Techniczny.  
*ACST-7-452

POLISH, per, Rynki Zagraniczne, Warsaw, 19, 22 Jul 1969, pp 3-4.  
JPRS 48939

The Ship Repair Yard at Swinoujscie.  
POLISH, per, Technika Igospodarka Morska, No 4, 1969, pp 174-176.  
DIA LN 49-70

Influence of the Blade Tip Clearance of an Axial Flow Compressor on its Parameters, by Stefan Szczepanski.  
POLISH, per, Technika Lotnictwa i Astronautyczna, Vol 21, Apr 1969, pp 9-12.  
*MUSA TT F-12,653

International Railway Organizations and Their Regulation.  
Wagon Construction Basics, Dividing Lures Into Kinds and Types Car Markings;  
Computing Devices.  
POLISH, per, Wszyzny Specjalistyczny, Rz, 41, 1967, 794.  
DIA LN 1J3-69

POLISH, per, Wojskowy Przegląd Techniczny, Warsaw, Jan 1969, pp 1-4.  
JPRS 49913

Road Construction Progress, Plans Described, 6 pp.  
JPRS 49980

The "Bukit" Metallic Container Plant, by C. Popescu.  
*ACST-7431

Rolling Stock Repair Activities Outlined, by E. Popovici, 6 pp.  
JPRS 49915

JPRS 48027

Winter Service Relating to New Conditions of Traffic Increase and Road Modernization in the Territory of Zagreb Road Maintenance Department.  
SERBO-CROATIAN, per, Cest. i Mostovi, Feb 1968, pp 72-74.  
DIA LN 5J-70

Construction of the Tomb Road.  
SERBO-CROATIAN, per, Cest. i Mostovi, Mar 1969, pp 29-70.  
DIA LN 2J-70
The Project for Building the Entrance of the Harar and South of Avilina Has been Approved.

SWEISH, per, Kontaktinformations, No 1, Feb 1969, pp 9-10.
DIA IN 52-58

Green Light for French Highways.

SWEISH, per, Kaputurnie, No 148, April 1969.
DIA IN 120-69

Experts Explain Mechanized Tame Cutting System, by Tony Fernandez, 5 pp.
DIA 48948

Anchoring of Roots, by R. Johnson, R. J. Luton.
SWEDISH, per, Byggindustrin, No 86, yr , pp 378-402.
DIA IN 867: (147)

Methods & Equipment

ARM/FSSTC/HT-23-500-68

DIA 48749

RUSSIAN, per, Priobr i Sistemi Upavleniya, No 1, 1968, pp 1-6.
AIR/PID/HT-23-200-69

Photon Geiger Counter with Unlimited Capacity in the 5-14 and 44-66 Angstrom Spectral Region, by L. S. Sorokin.
RUSSIAN, per, Priobr i Tekh Eisperimen, No 6, 1968, pp 174-176.
DIA IN 17-70

Hydroelectric Power Plants on Mura River Planned, by Milan Jancekovic, 6 pp.
DIA 45862

Railroad Track Industry and Modernization of the Yugoslav Trains.
DIA IN 15-21

The Development of the Road Freight Transportation and the Domestic Production of Highway Vehicles.
DIA IN 168-70

First Phase of Largest Cement Plant Completed, by Rafael Sanchez Lalebro, Alberto Pozo, 5 pp.
DIA IN 67935

The Network of Spanish Highways.
SRA.LSB, per, Boletin de la Camara Oficial de Comercio, Industria y Navegacion de Barcelona, No 87, Mar 1969, pp 98-107.
DIA IN 17-70

CHINESE, per, Ch'i Liang Ch'i Shu Yu i Ch'i Chih Tao, Vol 2, No 3, 1964, pp 34-41. AIP/PTDA/14-3-196-68

A Liquid Level Indicator for Cryogenic Gases, by Codar Kessler, 9 pp.
GERMAN, rpt, DESY-81-69/1, May 1969. AEC/ANL-Tr-758-69

Evaluation of Aerosol Filters by the Oil Mist Method, by Fritz Bangert.
GERMAN, per, Staub, Vol 21, No 7, 1961, pp 293-303. Dept of Navy NIC Trans 2898

A New Dust Measuring Apparatus for Evaluating Aerosol Filters, by Fritz Bangert.
GERMAN, per, Staub, Vol 22, No 3, 1962, pp 193-208. Dept of Navy NIC Trans 2899

Tentative Instructions for Testing Filters for Removal of Particulate Matter.

The Laser Gyroscope, by Peter Kahlan.
GERMAN, per, Vemessungs Technische Rundschnau, No 7, 1969, pp 241-256. *AEC-TR-7326
*FRG-TR-23-119-70

Data Consideration of Safety Handling of X-ray Diffraction Apparatus, by Ziko Hoshi.
JAPANESE, per, Honam Butsuri, Vol 2, No 2, 1967, pp 57-65. MAH 2F-23-10

POLISH, per, Rudy Metale Niezelas, Vol 13, 1968, pp 191-195. AEC

RUSSIAN, bk, Operatika Telemechanika-Svyaz, 1968, pp 1-220. AIP/PTDA/22-1313-67

Status of Air-to-Air Guided Missiles, by Hsiang-Hsi, No 7 pp.

Navigation, Communications, Detection & Countermasures

RUSSIAN, per, Aktevtaika-Telemechanika-Svyaz, Moscow, No 5, 1969, pp 18-20. JRS 48969

RUSSIAN, per, Doklady AN SSR, Vol 12, No 6, 1968, pp 503-505. AIP/PTDA/22-1480-68

Determination of the Coordinates of Objects (Distances and Difference of Distance) by Means of Information Contained in the Phase of a Signal, by V. B. Pestyakov.


Communications Through the Soil, by Robert Galilard.
NRO TT 5-14, 301

Preliminary Technical Study of a Direct Telecost Satellite,
NRO TT 5-14, 301

The Inland Navigation Between the Rhine and Oder in 1968.
DIAN 1254-69

The Percentage of Inland Navigation in Relation
to Domestic Transportation as a Whole, Slightly
Diminished Between 1962 and 1967, but was Still
93.38.
STRASBOURG,
DIAN 1270-69

To Be Able to Transmit So As to Command.
DIAN 1260-70

Modernization of the Canalized Oise
Major Growth of River Traffic in 1968
FRANCE, rep. Revue de la Navigation Fluviale European Ports and Industries Amnagement du
Territoire, No 4, 25 Feb 1969
DIAN 1186-69

Communication Service. Complete Automation of
the Telephone Network.
DIAN 1119-69

Telecommunications: The Automation of the Northern
Region Pas-Decais Will be Completed by the
DIAN 74-70

Article Reviews Progress of GDR TV Technology,
by Rudolf Koehler, 9 pp.
JPRS 78153
AEC/ORNL-Tr-158-69

Study of Gamma Radiation between 0.1 and 1.0 MeV in the Earth's Atmosphere, by Daniel Boclet.
AEC/ORNL-Tr-172-77

FRENCH, ppt., Euratom Conference on Irradiation Equipment, Grenoble, France.
AEC/ORNL-Tr-1437-69

FRENCH, per, Radioprotection, No 3, 1968, pp 115-129.
AEC/ORNL-Tr-2144-69

FRENCH, per, Suppl to Bull. d'Inf' A.T.E.N., No 6, Jan-Feb 1967, pp 5-12.
CEA
C.E. Trans 40/73

Certification of Reactor Graphite With Carbon Dioxide and Steam, by K. Hedden, H. Lowe, 24 pp.
AEC/ORNL/Tr 27

Protective Measures Against the Effects of Electromagnetic Pulses.
GERMAN, ppt., Nuclear Explosions on Military Installations 62-12 RMB Gericht, Germany.
DIA IN 1189-69

*AEC ORNL

GERMAN, ppt., 255-1/69 (State Radiation Protection Center)
AEC/ORNL-Tr-2142-69

AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69


AEC/Tr-7050-69
Dept of Navy Navships Trans 1290

Resonance Production in the Reactions, by A. A. Kuznetsov, et al.
RUSSIAN, RPT, JINR-P1-4396, 1969.

Disintegrating of Fast Neutrons from Light Nuclei with Protons of 105 MeV Energy, by V. I. Kuznetsov.
RUSSIAN, preprint, JINR-P1-4397, 1969.

Inelastic Interactions of High-Energy Deuterons with Atomic Nuclei, by V. S. Baranashkov.
RUSSIAN, RPT, JINR-P1-4396, 1969.

Formation and Decay of (\( \nu^+ \nu^- \)) Atoms, by S. M. Bilenkij, Nguyen Van Hieu, 5 pp.
RUSSIAN, preprint, JINR-P2-4438, 1969.

RUSSIAN, RPT, JINR-P-4185.


Determination of Moisture Content of Inter-12 by Infrared Spectroscopy, by V. S. Pavlov, Yu. N. Gusev, et al. 5 pp.

Convective Heat Transfer in Two-Phase and One-Phase Flows, by V. I. Boldyrev, 39 pp.

Experimental Investigation of the Effectiveness of Rapid Plasma Heating Methods, by L. V. Dubovoi, V. P. Fedyaev, 9 pp.


Inelastic Interactions of High-Energy Deuterons with Atomic Nuclei, by V. S. Baranashkov.
RUSSIAN, per, JINR-P1-4396, 1969.


Determination of Moisture Content of Inter-12 by Infrared Spectroscopy, by V. S. Pavlov, Yu. N. Gusev, et al. 5 pp.

Convective Heat Transfer in Two-Phase and One-Phase Flows, by V. I. Boldyrev, 39 pp.

Experimental Investigation of the Effectiveness of Rapid Plasma Heating Methods, by L. V. Dubovoi, V. P. Fedyaev, 9 pp.

RUSSIAN, bk, Opticheskye Skanirovannye Sistemy v Nauke i Tekhnike, 1968, pp 1-96.
FSTC-HTR-23-140-68

Study of a Non-linear Pulsed Photoelectric System of Automatic Tracking, by T. S. Shashkova.
RUSSIAN, per, Optiko-Mekh Prom, No 7, 1968, pp 4-8.
#ACSI-J-7334
FSTC-HTR-23-152-70

FNU/FTR/HT-23-301-68

Possibility of Applying Fiber Optics in Linear Measurements by Television Methods, by V. A. Rabinovich.
RUSSIAN, per, Optiko-Mekh Prom, No 11, 1968, pp 4-7.
ACSI-J-7188
FSTC-HTR-23-008-70

RUSSIAN, bk, Plazmennye Mechanizmy Izlucheniya v Astrofizike, 1968.
Tr No 35, Aug 1969
AIR/PRCN/69-0356

Boundary Layer and Chemical Reactions, by B. V. Alexeyev.
NASS TT P-579

AIR/FTR/HT-23-1291-68

A High-speed Optical Shutter for Forming a Laser Emission Pulse, by V. A. Gribkov.
*Dept. of fiery HRL

RUSSIAN, per, Priroda, Moscow, No 4, 1969, pp 57-61.
JPR-4888

RUSSIAN, per, Samoletostroenie i Tekhnika Vozdushnogo Flota, No 9, 1967, pp 21-22.
FNU/FTR/HT-23-32-66-68

Symposium on Gas Exchange In Highly Contaminated Areas, by V. A. Isakayeva.
#ACSI-J-7054
ID 203430900

RUSSIAN, bk, Siniat i Svycystva Ionoobmennykh Materialov, 1968, pp 129-133.
#ACSI-J-7366
FSTC-HTR-23-141-70

NASS TT P-10, 86

Powerful Gas Inlets, by V. P. Tychinskiy. 52 pp.
FNU/FTR/HT-23-1289-69

Conf. Optical Quantum Generators, by N. K. Sobolev, V. V. Shnovnikov. 65 pp.
FNU/FTR/HT-23-1286-69

CONSULTANTS BUREAU/TELEKON PRESS
The Combustion of Solids in a Pulse Stream, by V. S. Levkovskii.
RUSSIAN, per, Teploenergetika, No 1, 1969, pp 7-16.
NASA TT F-12,930

Thermodynamic Properties of Non-Stoichiometric Vanadium and Titanium Carbides, by
V. I. Alisteoyev, et al.

Thermodynamics of Interstitial Three-Component Phases of the Carbynydride Type, by
R. A. Andrievsky.

Transfer of Microwave Radiation in the Atmosphere, by K. S. Shitritin.

A Linear Exchange of Channel Flow of a Conducting Gas with a Large Magnetic Reynolds Number, by
A. G. Korzon.
RUSSIAN, per, Zh Prik Mehh i Tekh Fiz, No 1, 1966, pp 20-37.
NASA TT F-12,374

Stationary Supernovae Source of Non-equilibrium Plasma, by J. A. Lutgenov.
RUSSIAN, per, Zh Prik Mehh i Tekh Fiz, No 6, 1968, pp 120-123.
NASA TT F-12,296

RUSSIAN, per, Zh Prik Mehh i Tekh Fiz, No 6, 1968, pp 123-129.
NASA TT F-12,373

USSR, per, Zhurnal Prikladnoy Spektroskopi, Vol 7, No 4, 1967, pp 561-568

Monte Carlo Computation of Aerodynamic Characteristics of Bodies of Complex Shape in Free Molecular Flow, by A. A. Bogacheva, 11 pp.

RUSSIAN, per, Zhurnal Vychisl Mat i Mat Fiz, Vol 6, No 6, 1966, pp 1397-1402.

NASA TT F-12,390


*ACSI-J-7353


ADC/NL/Tr-766-69

Post-Critical Deformations of a Short Cylindrical Shell and a Square Panel Under Axial Compression, by V. V. Ykhovkov, 4 pp.

UKRAINIAN, per, Dopovidi AN URSR, Seriya A, Fizykо-Teхnichni ta Matematychni Nauki, No 4, 1967, pp 350-353.

AIR/ITW/HF-23-868-68


AIR/ITW/HF-23-1100-68

Oscillations of Scattering Amplitude and Restrictions on Its High-energy Behavior, by Y. M. Lonsadze.


NASA TT F-12,390

Calculation of the Volt-ampero. Characteristic of a Helium Projector, by V. A. Nazarenko, I. V. Gol'denfel'd.


NASA TT F-12,392

Radiation Copolymerization of Tetrafluoroethylene and Hexafluoropropylene, by Sun C'm-Tsung.

CHINESE, per, Gaocheni fungxun, No 3, 1963, pp 123-130.

*ACSI-J-7355

The Fermi Surface of White Tin, by Marinus Dirk Steelev.


NASA TT F-12,266
Asymptotic Study of Navier-Stokes Equations for Laminar Motion of an Incompressible Viscous Fluid, by Claude Francois.
Dept of Navy APL/JHU T-312

AEC/ORNL-Tr 2182

Study of a Dynamical Model for the Ice Crystal Lattice, by F. Maurice.
AEC/TT F-127,62

Relation Between the Angular State of an Atomic Vapor Subjected to Optical Pumping and Its Absorption and Scattering Properties, by P. Zaimo.
AEC/TT F-128,69

Study of Small Harmonic Vibrations of a Heated Structure in the Vicinity of a Folding State Corresponding to a Partial Entry into the Elastic Domain, by Henri Loison.
FRENCH, Rpt, AEC/RI 4-131.4.
NLL Ref: 9706.91

Note on the Formalism of Quantized Fields, by Jean Pirrote.
Dept of Navy APL/JHU T-2304

Application of Studies of Weak Luminescent Plumes to the Optimal Detection of Laser Echoes and to the Characterization of Optical Coherence, by Jean Boillot.
FRENCH, per, in Recherche Aerospatiale, No 125, 1968, pp 53-66.
Dept of Navy APL/JHU T-2313

Unsteady Supersonic Flow Around a Thin Circular Cylinder, by Gabriel Courcy.
FRENCH, per, La Recherche Aerospatiale, No 127, 1968, pp 37-43.
Dept of Navy APL/JHU T-2392

FRENCH, per, Recherche Aerospatiale, No 128, Jan-Feb 1969, pp 65-66.
AEC/TT T-121,62

Light Scattering and Glass Structure, by L. Prodhomme.
NLL Ref: 9022.81 (2552)

FRENCH, Rpt, Transferts Optimaux Entre Orbites Elliptiques Proches, ONERA, No 121.
NAS/NASA/TT F-594-69

GERMAN, Thesis
AEC/AERE/tr 1106

The Determination of the Elastic Modulus of Bars with the Aid of Bending Oscillations, by E. Gorges.
GERMAN, per, Annalen der Physik, Vol 11, No 6, 1931, pp 649-678.
NLL Ref: 9091.9F (CA trans 207)

GERMAN, per, Carbon
AEC/ORNL-Tr 2154-9
N.A.S.A. TT F-12, 32


Experimental Investigation of Moving Striations, by E. Bindermann. GERMAN, rpt, Forschungsgemeinschaft Institut für Gasentladungsfysik, Greifswald, der Deutschen Akademie der Wissenschaften zu Berlin, 1968, pp 263-274. NASA TT F-12, 074


Continuous Inclusion Measurement, by T. Saka, 10 pp. HUNGARIAN, per, Nemes es Automatika, No 1, 1968, pp 24-27. AIR/FTD/HT-23-1117-68

Slow Flow of Plasma Across a Sphere, by Mikio Arie, Masaru Ikiyama. JAPANESE, rpt, Oct 1963. 8 pp. Dept of Navy NSRDC T-347
RUSSIAN, bk, Inzhenernye Vychislitel'nye Postroenya 'Studen Kalyan' Otdeleniya, 1965
pp 1-355.
AIR/PFT/HT-23-371-68

RUSSIAN, per, Izvestiya VUZ. Energetika, No 9, 1968, pp 66-70.
AIR/PFT/HT-23-83-69

RUSSIAN, per, Izvestiya VUZ. Energetika, No 8, 1968, pp 89-94.
AIR/PFT/HT-23-83-69

*AGSI-J-7393
*FRST-11/1-14-68

Multifuel Engines, by L. A. Desiyanov.
*AGSI-J-7393
*FRST-11/1-14-68

AIR/PFT/HT-23-1431-68

AIR/PFT/HT-23-133-69

NASA T T 8-18, 603

*AEc

Dept of Navy APL/JHU T-2310
Space Technology

Space Launchers

Apparatuses of the USSR.

DIA IN 91-73

Experience of the Past and Conclusions for the Present, by I. I. Lisov.

RUSSIAN, per, Desantniki, 1968, pp 223-229.
DIA IN 89-69


RUSSIAN, bk, Dwizheniye Iskusstvennykh Sputnikov v Gravitationnom Pole Zemli, 1967.
NACA TT F-339


NACA TT F-302


JPRS 48858


JPRS 48858

Aviation and Space Pressure Suits, by


JPRS 48858


JPRS 48858

The Speed of Turbulent Motion in the Solar Photosphere, by D. P. Hold-Raja.

NACA TT F-12, 397


RUSSIAN, per.
NACA TT F-12, 359

Investigations of Projectile Material in Micro-craters, by Gerhard Rehman.

GERMAN, rpt, Jan 1968, pp 1-46.
NACA TT F-12, 394

Cosmodrome - A Launch Pad Into Space, by H. Heike. 4 pp.

AIR/FTD/HRT-23-239-69

The Two Axis Motion Gear for the Large Space Simulation Chamber of the Space Simulation Institute within the DVL in Peen-Mann, by W. Hallmann.

GERMAN, bk, Der Zweifachen-Bewegungssimulator fuer die Große Raumkammer des Institutes für Raumsimulation der DTU in Peen-Mann, Deut Luft-und Raumfahrt 1968, 60 pp
NACA TT F-12, 331


RUSSIAN, rpt, Kurchatov Report TAE-1861

*AES MATT


Science in a Socialist Country, by M. Millionashchikov, 5 pp. RUSSIAN, np, Izvestiya, Moscow, 16 Mar 1969, p 3. JPRS 48807

Research Centers in the Ukraine. RUSSIAN, np, Izvestiya, 20 Mar 1969. NLI Ref: colv.07 (100)

Socialism Speeds Scientific and Technical Progress, by N. Millionashchikov, 7 pp. RUSSIAN, np, Izvestiya, Moscow, 4 Sept 1969, pp 1-3. JPRS 49015

A High Award of Our Native Land. RUSSIAN, np, Krasnaya Zvezda, 8 July 1969. DIA LN 132-70

Table of All-Union Aviation Records. RUSSIAN, per, Kryla Rodiny, No 2, 1969, pp 1-9. DIA LN 59-70

Is Mankind Alone in the Universe. RUSSIAN, np, Literaturnaya Gazeta, Sept 1969. NLI Ref: 5167.05 (101)


Faster Than Everything. RUSSIAN, per, Nauka i Zhizn, No 3, 1969, pp 31-36. DIA LN 79-70

The Underwater Storrs of Bambalin. RUSSIAN, np, Sovetskaya Promyshlennost, 1969. DIA LN 1195-00

Named for Our Leader - N'kchelov. RUSSIAN, np, Sovetskaya Promyshlennost, 17 July 1969. DIA LN 124-70

Without a Transfer - To Bambalin. RUSSIAN, np, Sovetskaya Promyshlennost, 17 July 1969. DIA LN 192-70

Trading Port of Vladivostok. RUSSIAN, np, Sovetskaya Promyshlennost, 17 July 1969. DIA LN 192-70

Our Own House. RUSSIAN, np, Sovetskaya Promyshlennost, 3 Apr 1969. DIA LN 1154-69

Siberian Division of USSR Academy of Sciences, by N. A. Trustyn, 12 pp. RUSSIAN, np, Sovetskaya Promyshlennost, Novosibirsk-Moscow, 1969, pp 120-123. JPRS 48851

Transactions of the Tenth Scientific Conference of the Institute of History of Natural Science and Technology, by Yu. V. Byryukov. 69 pp. RUSSIAN, per, Trudy X Naukno Konferentsii Aspirantov i Mladshikh Naukomykh Otrudnikh Institute, 1967. NASA T T P-537

Rush Toward the Caspian. With a Reduced Staff. RUSSIAN, per, Vodny Transport, Apr 1965. DIA LN 79-70

My City. The Ice Giant. RUSSIAN, per, Vodny Transport, 22 May 1969. DIA LN 1267-69
Lithuanian USSR:
A Large Voyage for a Big Ship. What Specialization Gives to Us. Passenger Port. RUSSIAN, per, Vodnyy Transport USSR. DIA LN 1180-69.

This Area is Widening, Vegetable Container. Economical Reforms are Being Conducted. Science and Technology. A New Method of Coating. RUSSIAN, per, Vodnyy Transport USSR. DIA LN 1180-69.


Questionmarks Concerning Radiation, by V. Dolezal. CZECH, per, Radar, No 1, 1968, pp 49-51. *AEC/ORNL-Tr-2219


Scientific
Miscellaneous (Contd)

In Report of the German Committee for Protective
Masks. Testing of Lime Dust Masks,
GERMAN, per, Staub, Vol 23, No 4, 1963,
pp 262-264.

Dept of Navy JCIC Trans 3202

Official Announcements: Official Reports of the
Transportation Companies.
HUNGARIAN, per, Kolekadesi Kozlony, No 33,
Mar 1969, pp 287-357.

DIA LN 145-70

The National and Freedom Harbour is 40 Years Old.
HUNGARIAN, per, Kolekadesi Kozlony, 17 Nov, 1969
DIA LN 1148-69

Budapest International Fair - 1968.
HUNGARIAN, Per, Kolekedas Tudomany Szele,

DIA LN 1160-69

Highway and Railway Planning Department.
HUNGARIAN, per, Kolekadesi Kozlony, May 1969,
pp 284-326.

DIA LN 197-70

Aczel Refined Principles of New Science Policy,
HUNGARIAN, per, Tarasadal Szele, Budapest, July-

JPRS 48738

Problems, Results at Dombovot.
HUNGARIAN, per, Vasut, No 4, 1969, pp 16-17.
DIA LN 1299-69

Day of the Transport Worker and Road Builder.
POLISH, per, Motoryazacja, No 269, 1969,
pp 75-79.

DIA LN 185-70

Shortcomings in Polish Science Pinpointed, by
Arkadiusz Goral, 11 pp.
JPRS 48945

Accident - Beware - The Price of Speed.
POLISH, per, Przeglad Kolejowy Czynowceny,
No 11, 1968.
DIA LN 1134-69

Inauguration of the Mexico City Subway.
PORTUGUESE, per, Construcao Civil, No 127,
May 1969.
DIA LN 18-70

New Bridge Across the River at Porto.
PORTUGUESE, per, Construcao Civil, 25 May,
May 1969.

DIA LN 184-70

Sao Paulo - A Colossal Plan.
PORTUGUESE, per, Pynchets, No 624, 1966,
pp 72-87.

DIA LN 77-70

The Southeast.
PORTUGUESE, np, Panorama Regional do Brazil,

DIA LN 87-70

The Reno River: An Example Worthy of imitation.
PORTUGUESE, per, Vinaes, Vol 34, No 2, 31 Jan
1969, pp 73-79.

DIA LN 767-69

Scientific Research Planning Procedures Detailed,
by T. Halakopol, 12 pp.
HUNGARIAN, per, Problame Termolody, Budapest,

JPRS 48738

Hearings on Traffic Safety in the Committees of
the Assembly of the Socialis Republic of
Croatia.
SERBO-CROATIAN, per, Ceste i Mostovi, Feb
1969, pp 50-54.

DIA LN 15-70

From the Yugoslavian Society for Roads.
SERBO-CROATIAN, per, Ceste i Mostovi, Feb
1969, pp 37-44.

DIA LN 15-70

Abbreviations in the Latin American Press, 151 pp.
SPANISH, np, various sources.

JPRS 48726

Higher Learning Students Visit an Electrical
Power Plant.
SPANISH, np, La Estrella de Panama, 28 Nov
1968.

DIA LN 73-70

Over 300 Attend First National Automation
Meeting, by Tony Fernandez, 5 pp.
SPANISH, np, Graoana, Havana, 25 Aug 1969,
pp 1-6.

JPRS 48828
Scientific
Miscellaneous (Contd)

Working at the Thermoelectric Plant in Huevitas.
SPANISH, pp, Mi Mundo, 19 Mar 1968.
DIA LN 09-70

Increased Scientific, Technical Activity Urged,
13 pp.
VIETNAMESE, por, Khoa hoc va Ky Thuat Nong Hiep.
JPRS 48789
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acta Biochimica Polonica, Vol 17, No 1-4, 1970.</td>
<td>*CPSTI TT 70-55000/1</td>
<td></td>
</tr>
<tr>
<td>Acta Physiologica Polonica, Vol 21, No 1-6, 1970.</td>
<td>*CPSTI TT 70-55009/1-6</td>
<td></td>
</tr>
<tr>
<td>Acta Poloniae Pharmaceutica, Vol 27, No 1-6, 1970.</td>
<td>*CPSTI TT 70-55004/1</td>
<td></td>
</tr>
<tr>
<td>Archivum Immunologicum et Therapiae Experimentalis, Vol 18, No 1-6, 1970.</td>
<td>*CPSTI TT 70-55006/1</td>
<td></td>
</tr>
<tr>
<td>Arhiv Bioloških Nauka, Vol 22, No 1-4, 1970.</td>
<td>*CPSTI TT 70-56002/1</td>
<td></td>
</tr>
<tr>
<td>Biokhimiya, Vol 34, No 1, Pt 1, Jan-Feb 1969.</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>Biokhimiya, Vol 34, No 1, Pt 2, Jan-Feb 1969.</td>
<td></td>
<td>CB</td>
</tr>
</tbody>
</table>

*CFSTI* indicates that the content is accessible through the Chemical Abstracts Service (CAS) file system.
PART III

CONTENTS

LIU CHEN LOU: Some Theorems on Intersections of Cyclic Codes

TSENG CHUNG HSING: A Fourier Series Expansion for the Radiation Field of an Axial Helical Antenna

YU CHEH PANG: Fluctuating Characteristics of a Tunnel Diode Oscillator

LIN CHAO YUAN: Isofrequency Plots of a Potassium Chromicyanide Crystal

CHU WU HUA: Correlation Analysis of Noise in Power-Line Carrier Channels

TUNG SHIH CHIA AND FANG MING YU: A Solution to the Linear FM Pulse Compression System by Using the Dispersive Delay Line

LOU JEN HAI: On Vibration and Shock Isolation of Electronic Equipment

CHAO TZU SEN: Network Analysis Using the 0 - method

CHI CHANG TAO: On the Matrix Analysis of Networks

LI LO MIN: Stability of a Pulse-Operated Automatic Phase Control System Using an Additional RC Network

Available From The Institute of Electrical and Electronics Engineers
Soviet Physics

ACOUSTICS

A Translation of "Akusticheskii Zhurnal"

(Russian Original Vol. 15, No. 2, pp. 151-329, April-June, 1969)

Vol. 15, No. 2, pp. 135-284

October-December, 1969

CONTENTS

Sonoluminescence and Ultrasonic Chemical Reactions. M. A. Margulis

Piezoelectric Measurement of Short Pressure Waves. E. I. Akushkin,

A. A. Kalmykov, A. I. Petruchkin, and Yu. E. Fleshkov

Mechanism of the Acceleration of Film Development for Normal Incidence of

an Ultrasonic Wave on the Photosensitive Layer. M. E. Ar'xen'gelskii

and L. N. Kanevskii

Sound Generation Mechanisms in the Breaking of Ice Samples in Liquids.

V. V. Bogorodskii, V. P. Davvillo, V. S. Grigor'ev, and A. V. Gusov

On the Edge Effect. O. A. Baldareva and K. A. Velizhanina

Resonance Hypothesis of the Sound Generation Mechanism of the Hartmann


Experimental Investigation of the Statistical Characteristics of a Telephone

Signal. V. P. Vasil'ev and G. V. Zibin

Correlation of the Fluctuations of Sound Signals Reflected from the Ocean

V. V. Volovov and Yu. P. Lyasanov

Acoustoelectric Energy Transformation in Piezoelectric and Piezoelectric

Semiconductor Receivers at Resonance. E. K. Grishchenko

Sound Absorption by Thin Layers of Fibrous Materials. N. F. Egorov

Piezoelectric-Transistorized Sensitive Elements and Microphones.

V. I. Zaykhin, B. M. Komolmytsev, and L. N. Syrkin

Generation and Propagation of Ultrasonic Noise in Electrically Inhomogeneous

CdS Crystals. V. K. Komar', L. A. Sysnov, and B. L. Timas

Propagation of Surface Waves over Curved Surfaces. A. D. Lapin

Pressure Field Produced by the Collapse of a Cavitation Void.

Yu. L. Levkovskii

Application of the Correlation Method for Analysis of the Localized

Distortions Due to the Operation of a Stereophonic System in a Primary

Sound Field. V. S. Man'kovskii

Diffraction of a Plane Wave by a Periodic Uneven Interface between Media.

E. S. Mashushvili and I. A. Urusovskii

Variance of the Instantaneous Frequency-Time Cross-Correlation Function of

the Transmitted Signal and Sea Reverberation. V. V. Ol'shayevskii

Available from The American Institute of Physics

Vol 15, No 2, Oct-Dec 1969

- 131 -
### Numerical Solution of the Wedge Diffraction Problem by the Transverse Diffusion Method
A. V. Popov

Investigation of a Plate T-Junction in a Diffuse Flexural Wave Field
V. N. Romanov

Form Factor of the Sample in Measurements of the Dynamic Shear Modulus
G. S. Rosin

### BRIEF COMMUNICATIONS

#### Boundary-Layer Turbulence around a Vibrating Cylinder
M. E. Arkhangelskii

#### Model Study of a Surface Sound Channel as a Communication Channel
A. N. Barkhatov and I. I. Shmelev

#### Temperature Dependence of the Absorption of Ultrasound in All-HV Compounds
B. A. Popyrev and A. F. Kravchenko

#### Double-Layer Vibration-Absorbing Structures with an Intermediate Layer of Polyurethane Foam
G. A. Balabov, M. G. Mikhailina, N. I. Naumikh, and B. D. Tartakovskii

#### Study of the Absorption Coefficient and Velocity of Ultrasound in the First Four Homologs of the Series of Formic Acid Esters
K. M. Burundukov and V. F. Yatskov

#### On the Relaxation Mechanism in Diethyl Aminoethylmethacrylate
L. S. Groshmatova and V. F. Nozdrnev

#### Sound Absorption in Molten Selenium
M. B. Gitis, I. G. Mikhailov, and S. Niyazov

#### Pressure Pulsation Spectrum for Detached Flow Past a Blunt Step
E. M. Goshilov and A. V. Evtushenko

#### Amplification of a Nonspecular Reflected Wave
L. M. Lyamshev

#### Investigation of Sound Absorption and Light Scattering in a Toluene-Methanol Mixture
S. A. Osmanov, V. P. Romanov, and L. I. Savina

#### On the Relationship between Friction Theories and Hardness Theories
G. A. Ostroumov

#### Transverse Normal Modes in a Cubic Crystal Plate
D. A. Tursunov

### CHRONICLES

L. M. Brekhovskikh, Member of the Academy of Sciences of the USSR

Georgi Andreevich Ostroumov (On His 70th Birthday)

Issa Grigor'evich Polotskii (On His 60th Birthday)

Symposium on Cavitation

Conference on Ultrasonic Spectrometry (Announcement)

### BOOK REVIEWS

Ultrasonic Methods of Testing the Composition and Properties of Materials
N. I. Brazhnikov

Reviewed by L. N. Karanovich

### ANNOUNCEMENT

The International Electrotechnical Commission (IEC) Announces Two New Publications on Electroacoustics

Available From The American Institute of Physics
Vol 15, No 2, Oct-Dec 1969
BIOCHEMISTRY

A translation of Biokhimiya

Volume 34, Number 1, Part 1

January-February 1969

CONTENTS

Two Kinin-Producing Enzymes from Human Blood Plasma - A. I. Laufer, O. M. Gallikova, and T. S. Pashkina .............................................................. 1

Properties of High Molecular RNA-Like RNA of Animal Cells - K. G. Gavryan and G. L. Kryshev ................................. 3

Thymidine Biosynthesis in Thymin-Dependent Mutants of Escherichia coli K12 - L. A. Mincheva and T. S. Nik ................................. 13

Investigation of Globulins of Cotton Seed by Electrophoresis in a Polyacrylamide Gel and by Chromatography on DEAE-Cellulose - N. N. Karavaeva, V. M. Mikhailov, D. Kh. Yuldashev, and Kh. Mirzakhamatov ................................. 21

Effect of Heterocouxit on II Groups and Alcoholase Activity - A. A. Zemlyanich and V. I. Zeyaginetsv ................................. 29

"Immune" RNA-Induced Antibody Formation in Spleen Cells in Vivo - V. A. Lysenko, E. S. Shatova, and R. I. Yuskovskorova ................................. 37

A Modified Method for the Isolation of Blood Group Substance (A + II) from Porcine Gastric Mucosa - L. M. Likhoshernov, V. A. Deresivskaya, and V. I. Fedorova ................................. 45

Investigation of Low Temperature Hydrolysis of Proteins on Sulfonic Acid Ion-Exchange Resins - N. P. Kurnitskova and G. V. Samsonov ................................. 53

Trypsin Hydrolysis of Lysine and Arginine N-(α)-Tosyl Esters - L. G. Yurganova ................................. 61


Interaction between Hydroxyamine Derivatives and Transaminases of Aromatic Amino Acids - E. S. Severin, N. N. Gulyaev, and R. M. Khomutov ................................. 77

A Neutral Protease from the Tissues of a Transplantable Rat Sarcoma - O. V. Kazakova and V. N. Orekhovich ................................. 85

Action of UV-Inactivated Sendai Virus on RNA Synthesis in Ascites Cells - S. Botish, E. A. Vladimirov, and A. G. Bukrinovskaya ................................. 93

Photochemical Reduction of Chlorophyll Analogs by Tryptophan - A. V. Umrikhina and A. A. Krasnovskii ................................. 101

Properties of Carp Brain Acetylcholinesterase - I. L. Brik ................................. 109

Isolation and Purification of Penicillin Acylase from Cells of Escherichia coli; and a Study of Some of Its Catalytic Properties - N. S. Bondareva, M. M. Levitov, and L. V. Goryachenkova ................................. 117

Effect of pH on Activity of Yeast Glyceraldehyde-3-Phosphate Dehydrogenase - N. K. Nagradova and R. A. Asriyants ................................. 125

The Russian press date (godishnaya k 1968 godu) of this issue was 1/28/1969. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Available From Consultants Bureau

- 133 -
CONTENTS

Purification and Properties of Uridine Diphosphate Glucose-1-Epimerase from
Mung Bean (Phaseolus aureus) Seedlings - T. N. Brazhnikov, M. A. Nekrieva,
and V. V. Shilov ................................. 87 108

Physicochemical Properties of the Biologically Active Complexes of Thymoside
- L. I. Stelo'nikov, S. B. Kholovskii, A. I. Briskin, O. M. Tepel'nik,
A. A. Ablakharimov, E. A. Ryrdin, V. M. Kompan'tskaya, and I. M. Rayam'skaya 93 115

Adenosine Triphosphatase Activity and the Adsorption of Ca2+ Ions by Sarcoplasmic
Reticulum Fragments - A. A. Belyaev, A. V. Lebedev, and V. D. Rytov .......... 96 119

Relation between Substrate Structure and Mitochondrial Membrane Oxidase Activity
I. S. Severina and T. N. Sheremet'eva-Lay ........................................ 101 125

Action of Acetidine-2-Carboxylic Acid on Protein Synthesis in Cartilage Tissue of Chicks
Embryos - V. Z. Zamar'skaya, A. D. Bibikova, and V. L. Mazurov .......... 109 126

Study of the Phospholipids in Morphologically Different Parts of the Central Nervous
System - V. Ya. Devekin and S. V. Costeva ........................................... 115 134

Effect of Intensity of Flavin Biosynthesis on Acid-Soluble Nucleotides and Their
Derivatives in Cells of Candida guilliermondii - G. M. Shchukovskii,
E. M. Logvinenko, and M. X. Staniv .............................................. 120 140

Content and Method of Determination of Nicotinamide Nucleotides in Normal and Denervated
Muscels - V. I. Telegina and R. Meshter ........................................... 128 149

Self-Assembly of Tail Rod Protein of Phage T2 - N. F. Poglayev and T. I. Nikol'skaya .... 133 156

Studies on Spleen Polysomes of Immunized Animals - V. N. Vasil'chenko,
A. G. Dyachenko, E. S. Vasil'teva, and T. N. Todorov .................................. 135 150

Tumor Lipids. Investigation of Phospholipids of Jensen Sarcoma - É. V. Dyatlovn'skaya,
T. L. Torkhov'skaya, and I. D. Bergel'son ......................................... 144 167

Inactivation of Phosphorylase B by Acetylthimidazol-P. L. Sul'son and L. K. Selyshcheva .... 149 173

Investigation of Some Characteristics of the Primary and Secondary Structure of DNA
from the Liver of Spawning Pink Salmon - B. F. Vanyushin, G. K. Korotnin,
A. L. Mazin, and G. D. Berdyshhev .................................................. 155 191

Adenosinetriphosphatase Activity of Nuclear Membranes and Nuclei of Rat Liver and of
Zajdel Hepatoma in Rats and Ehrlich's Ascites Carcinoma in Mice
- L. N. Delektorskaya and K. A. Porevoshchikova .................................. 161 199

Investigation of Highly Purified Preparations of Hyaluronic Acid - S. M. Bychkov
and M. F. Kolesnikova ................................................................. 166 204

BRIEF COMMUNICATIONS

Action of Pepsin Inhibitor on Beef Spleen Cathepsin D - V. M. Stepanov, V. N. Orehkovich,
L. S. Logareva, and T. I. Mzhel'skaya .............................................. 170 209

Evidence for the Blocking of the Carboxyl Group at the Active Center of Pepsin by
Diacarbonyl Inhibitor - L. M. Gimodman, T. A. Val'eva, L. V. Kezlov, and
L. S. Shkarenkova ................................................................. 177 211

The Russian press date (po'dpisano k pechati) of this issue was 1/28/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau - 134 -
# ELECTRICAL ENGINEERING IN JAPAN

DENKI GAKKAI ZASSHI

## CONTENTS

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>K. Sasabe</td>
<td>Tensor Analysis of Brushless Transistor Motor</td>
<td>1</td>
</tr>
<tr>
<td>T. Matsumoto</td>
<td>DC Corona Loss of Coaxial Cylinders</td>
<td>11</td>
</tr>
<tr>
<td>M. Uehimai</td>
<td>Fault Current of Rectifier</td>
<td>20</td>
</tr>
<tr>
<td>S. Miyairi and M. Shioya</td>
<td>Gate Control Circuit for Thyristor Cycloconverter</td>
<td>31</td>
</tr>
<tr>
<td>S. Takada</td>
<td>Compensation of Bus Voltage Fluctuation by Means of Optimal Control of Synchronous Machine Excitation</td>
<td>42</td>
</tr>
<tr>
<td>A. Tomimaga</td>
<td>Characteristics of Power-Frequency Flashover on Contaminated Surfaces in Fog</td>
<td>53</td>
</tr>
<tr>
<td>T. Nomura</td>
<td>Finite Difference Method Applied to Eddy Current Problems and Its Error Estimation</td>
<td>60</td>
</tr>
<tr>
<td>K. Fujii and H. Ito</td>
<td>Application of Sampled-Data Control System with Fixed Difference Sampling to Multichannel Control System</td>
<td>71</td>
</tr>
<tr>
<td>S. Hayashi, S. Toyoda and J. Wakabayashi</td>
<td>Analysis of a Three-Phase Static Inverter Circuit with Rectifiers</td>
<td>79</td>
</tr>
<tr>
<td>M. Naoe, I. Kamiya and S. Yamanaka</td>
<td>Ferrite Films Deposited by Vacuum-arc Discharge</td>
<td>89</td>
</tr>
<tr>
<td>INDEX FOR 1968</td>
<td></td>
<td>97</td>
</tr>
</tbody>
</table>

Available From The Institute of Electrical and Electronics Engineers
ELECTRICAL ENGINEERING
IN JAPAN
DENKI GAKKAI ZASSHI

VOLUME 59 1969 NUMBER 1

CONTENTS

R. Kosaka: Measurement of High-Speed Piezoresistive Effects .................................. 1
Y. Kato and K. Takagi: Design of Frequency Meter Using a Rectangular Hysteresis Core .................................................. 11
M. Hayashi and S. Ihara: Operational Margin as Related to Dynamic Stability .................. 21
S. Sone: Improvement of Commutation of Ripple-Current Motors (Smoothing of Main Flux and Diode-Assisted Commutation) .................................................. 31
Y. Kimoto, K. Tamura, and K. Hirata: Electrode Erosion Due to Transient Arc Discharge in Liquids ........................................... 42
I. Ohno and S. Otta: Study of Photoemitter-DC Motor .............................................. 51
T. Tanii, R. Takano, and Y. Miki: Constriction Resistance of Electrical Contacts ............. 58
T. Osada: Reliability of System Observation and Optimum Control ................................ 78

Available From The Institute of Electrical and Electronics Engineers
ELECTRICAL ENGINEERING
IN JAPAN

CONTENTS

T. Tanaka: Analysis of Parametric Oscillation with Large Amplitude

H. Kazuno: A Wide-Range Speed Control of an Induction Motor with Static Saturable and
Krämer Systems

B. Kondo and K. Ando: Error Analysis and Optimal Strategy for DDA Linear Computations


K. Harada and S. Takeuchi: Analysis of Peak-Height Magnetic Modulator

T. Higuchi and T. Kikuchi: Experimental Studies of Zero-Point Fluctuations in Magnetic Amplifiers

A. Yagi and K. Kuroki: Multiplier Using MOSFET's as Squaring Elements

H. Ogawa: A New Method of Power-Generation Planning—Determination of Service Dates

S. Be, H. Enjoji and K. Okamoto: A Swinging Cascade Air-Gap Switch

T. Kato, S. Arai and T. Omori: Burn-Out Test of High-Voltage, Current-Limiting Fuses

Available From The Institute of Electrical and Electronics Engineers
ELECTRONICS AND COMMUNICATIONS IN JAPAN

DENSHI TSUSHIN GAKKAI RONBUNSHI

VOLUME 51 NUMBER 12

CONTENTS

PART A

Wire Communication, Switching Practice, Transmission Lines, Electromechanics, Ultrasonics, and Network Theory

CONTRIBUTED PAPERS

Yasuo Koscki, Yasuo Fujita, Seiichi Inoue, Yukio Nakagome, and Hozumi Engomoto: Message Store and Exchange Unit
Takahiro Inamura and Takaru Ikeda: Integrated Ultrasonic Delay Line Using Mode Conversion
Toshio Hosono, Takashi Hinata, and Koshi Muda: Design of Matched Signals for Realizable Filters
Tatsuo Ohdatsuka and Hitoshi Watanabe: State-Variable Analysis of RLC Networks Containing Nonlinear Coupling Elements
Goro Tokuyama: Reliability Design in an Electronic Switching System
Shingo Watanabe: Effect of Sidetone Noise on Telephone Transmission Performance

SHORT NOTE

Hirokazu Goto: Characteristics of Mutually Synchronized System Due to Phase Variation of Received Clock

PART B

Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves, Quantum Devices, Electron Devices, and Television

CONTRIBUTED PAPERS

Masahiro Agu, Iruji Kondo, and Toshiro Sekiguchi: Radiation Fields from an Electrical Dipole Moving in a Compressible Isotropic Plasma
Katashi Hazama, Toshiyuki Shiozawa, and Nohuki Kunagai: Reflection and Transmission of a Plane Electromagnetic Wave by a Moving Isotropic Plasma (A General Solution)
Fujio Ishihara and Yoshio Araki: Ladder-Type Delay Equalizer for Millimeter-Wave Communication Systems

DISCUSSION

Saburo Achatoh: Comments on "Radiation from an Electric Dipole in a Column of Anisotropic Plasma" By M. Okabe

Available From The Institute of Electrical and Electronics Engineers

- 138 -
PENSII TSUSHI GAKKAI KONBUNSHI

Vol. 51, No. 12, 1968

Motoaki Okahara: Reply to Mr. Adachi's Comment

SHORT NOTES
Masashi Imai and Tadashi Matsumoto: Dielectric-Coupled Distribution for Suppressing Mode Conversion Due to Bends in Gas Lenses
Kenichi Oyaki, Norihiko Nakayama, Elizo Miyazaki, and Kenichi Ito: A New Type of Cathode-Ray Tube with Cross-Field Gun
Nobuki Kamaizaki and Shinnosuke Sawa: Dielectric Thin-Film Surface Wave Guide with Periodic Lens-Focusing Effect
Sugemichi Nagano, Hiroshi Murakami, and Toshio Hama: Gunn Oscillator Using a Coupled Cavity Resonator

PART C


CONTRIBUTED PAPERS
Kojiro Kobayashi: Some Unsolvable Problems Concerning Context-Free Languages and Their Application to On-Line Language Recognizers
Toshiaki Itoma: Optimization of Component Part Tolerances
Yoshiro Iwatake: A Theory of Burst Correcting Convolutional Codes
Toshiki Ioka and Hisayoshi Yanai: Theory of LSA Oscillation and Related Experiments
Tosihito Ito, Hideki Toritsuka, and Hisayoshi Yanai: Simplified Analysis of Steadily Propagating High-Field Domain in Gunn Effect Using Piecewise-Linear Approximation
Hisashi Mine, Toshiharu Hasagawa, Masaki Ikeda, and Takahiro Shimizu: Construction of Ternary Logic Circuits
Kazuhiro Sugata: Synthesis of Threshold Elements Networks

SHORT NOTE
Kenji Yamauchi, Norihiko Morinaga, and Toshihiko Namekawa: A Method of FM-Type Measurement of Noise Power

CONTRIBUTORS TO THIS ISSUE
INDEX 1968

Available From The Institute of Electrical and Electronics Engineers
ELECTRONICS AND COMMUNICATIONS IN JAPAN
DENSHI TSUSHIN GAKKAI RONSHU

CONTENTS

Wire Communication, Switching Practice, Transmission Lines, Electromagnetics, Ultrasound, and Network Theory

CONTRIBUTED PAPERS
Masao Saito: Gain and Sensitivity in Networks Containing a Negative Resistor ........................................... 1
Yasuo Fukuda, Yasuo Koeaki, Seiichi Inoue, Yukio Nakajima, and Hironmi Kanno: Designing for Reliability in an Automatic Message-Processing System .......................................................... 8
Tetsuo Satoh: The Design of All-Pass Maximally Flat Delay Networks for Video Signals .............................. 17
Hisashi Kameko and Akira Sawat: Feedback Balanced Cell for Multilevel PCM Transmission ....................... 25
Hirosi Hirai and Toshihiko Namekawa: Phase-Shift Circuit and Pulse Compression Filter Using Sampling Technique .......................................................... 35

SHORT NOTES
Shoji Shinoda and Kazuo Itohchi: Theorems of Directed-Tree Knapsack ..................................................... 43
Teruhiko Bessho and Tadashi Takei: A Design Parameter for Esaki Diode Bistable Circuits ........................ 45

PART B
Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves, Quantum Devices, Electron Devices, and Television

CONTRIBUTED PAPERS
Yoshinori Aoki: Microwave Holography Using a Two-Hole Interference Method ........................................ 47
Tomon Ose and Nakahiko Tanaka: An Analog Feedback System for Digital Information Transmission ........ 54
Hiromichi Muramoto, Yasuo Mushioka, and Hiroshi Imai: Measurements of the Padd- ing Rate in a Model Propagation Path Having Floating Spheres .............................................................. 64
Yoshitaka Ii: Thickness of the Ferrite Absorbing Wall .................................................................................. 71
Yoshishiki Naito, Koichi Satoh, Koji Fujikawa, and Masaaki Sato: Characteristics of the Ferrite Absorbing Wall .......................................................... 76
Toshitada Doi and Risaburo Sato: Mutual Admittance of the Multi-Cut Loop .......................................... 81
Motoaki Chikuko: Electromagnetic Wave Reflection and Transmission from the Boundary of Semi-Infinite Compressible Anisotropic Plasma ......................................................... 86
Toshiyuki Shiozawa: Electromagnetic Scattering by a Small Plasma Ellipsoid Moving Through an External Stationary Magnetic Field ......................................................... 91

SHORT NOTES
Susumu Ono and Tatsuro Shino: Amplitude Response of Varactor Up-Converter ........................................ 97
Shinya Takagaki and Mamashito Tateishi: Relation Between the Effect of Leakage Fields and the Characteristics of Magnets in Periodic Permanent-Magnet Structures for Traveling-Wave Tubes .......................................................... 98
Shinya Takagaki and Masahiko Tateishi: Method for Predicting End Effect in Periodic Permanent-Magnet Structures for Traveling-Wave Tubes ................................................. 101

Available From The Institute of Electrical and Electronics Engineers
CONTRIBUTED PAPERS

Toshihiko Terada: Reverse Characteristics of Germanium Hyphen-Abrupt p-n Junction .................. 153
Tadashi Aki, Tsutomu Miura and Kunio Mano: A Transistor Model for Switching-Circuits Analysis by the Nonlinear Charge-Control Method ........................................... 143
Naohide Hara, Ryosuke Shimada and Takeomi Tanematsu: Three-Wire Three-Valued Logic Circuits .................................................. 126
Masaya Fujiki and Eifuku Gamba: Conditional Waiting Time in a Multi-Level Feedback Priority Queuing Model .............................................. 129
Hiroshi Hirayama, Yoshiyori Urama and Teruo Watanabe: Synthesis of Full-Safe Logic Systems ........................................ 137
Tadahiro Ohmi, Kimio Murayama and Hiroshi Kanbe: Effect of Intervalley Scattering Time on Two-Valley Semiconductor Oscillators .............................................. 145
Gisaku Nakamura, Yo Murao and Katsuji Tsukamoto: Analysis of Waiting-Time Distribution for the Round-Robin Scheduling Scheme ............................................... 153
Manoru Fujii and Tadao Kasami: Some Structural Equivalence Relations and Transformation of Context-Free Grammars .................................. 152

SHORT NOTES

S. Noguchi: On Thermal-Effect Type of Solid-State Inductance .................................................. 171
Keiji Taniguchi, Hiroshi Ozaki, Yoshimi Gamo and Kazuo Kajima: Measurement of Eddy-Current Effects in a Coupled Film Memory Plane ........................................ 172
Tosaki Koike and Shin Kuno: Zero-TCR Tantalum-Nickel Film Resistors ................................ 174

CONTRIBUTORS TO THIS ISSUE ........................................ 176

Available From The Institute of Electrical and Electronics Engineers
CONTENTS

1 172
2 173
3 174
4 174
5 175
6 175
7 176
8 176
9 177
10 177
11 177
12 178
13 178
14 178
15 179
16 179
17 179
18 180
19 180
20 180
21 180
22 180
23 180
24 180
25 180
26 180
27 180
28 180
29 180

Available From Consultants Bureau

- 142 -
CONTENTS

The Russian press dates (podpisano k pechatu) of the first and last letters covered in this issue of the translation were, respectively, 12/23/1968 and 1/6/1969. Publication of the material translated in this issue therefore is known to have occurred not prior to the earlier of these dates, but must be assumed to have taken place at intervals starting reasonably soon after this date and ending shortly after the later date.

Available From Consultants Bureau
## CONTENTS

**AERODYNAMICS**
- Structure of a Shock Wave in a Simple Monatomic Gas. F. G. Cherepishin. (T) 91 4 796

**ASTRONOMY**
- Meteor Luminosity and Ionization. P. B. Babadzhanov. (E/T) 94 4 800

**FLUID MECHANICS**
- Lagrangian Description of the Dynamics of Turbulent Motion. B. Ya. Lyubimov. (T) 97 5 1069

**HYDRAULICS**

**MATHEMATICAL PHYSICS**
- The Normal Form of Operators in a Fock Space. A. I. Oksak. (T) 101 5 803
- Scale Similarity for Random Fields. E. A. Novikov. (T) 104 5 1072

**MECHANICS**
- Synthesis of Uniaxial Regular Gear Mechanisms by Means of Combinatorial Schemes. M. S. Rozovskii. (T) 114 5 1066
- An Inverse Problem in the Theory of Diffraction. G. M. Malysheva. (T) 118 6 1301

**MECHANICS OF CONTINUOUS MEDIA**
- Asymmetric Fluid Mechanics and an Averaged Description of Turbulent Flow. V. N. Nikolaevski. (T) 120 6 1304

**PHYSICS**
- General Waveguide Theory and the Ultimate Resolving Power of Multiple-Ray Spectrum Analyzers. L. N. Deryugin and A. V. Chekan. (T) 123 4 807
- Transport of Heat in a Plasma along a Magnetic Field (Replacement Wave). A. A. Ivanov, L. L. Kozorovitskii, and V. L. Rusanov. (E/T) 126 4 811

---

Copyright © 1969 by the American Institute of Physics

Available from the American Institute of Physics

Vol 14, No 2, Aug 1969
Available from the American Institute of Physics
Vol 14, No 2, Aug 1969

- 145 -
CONTENTS

CRYSTALLOGRAPHY
Synthesis and X-Ray and Thermal Studies of Potassium Rare-Earth Tungstates, $\text{KLn(WO}_4)_2$, Ln = Rare-Earth Element. P. V. Klevtsov and L. P. Kozeeva. .................................................. (E) 185 3 571
A New Lanthanum Oxytungstate $\text{2La}_2\text{O}_3\cdot3\text{WO}_3$. T. I. Timchenko, L. V. Petushkova, E. A. Pobedimskaya, and A. V. Pashkova. ......................... (E) 188 3 575

CYBERNETICS AND CONTROL THEORY
Functional Equivalence of Automata with a Final State. A. A. Letichevskii. (T) 190 1 58

FLUID MECHANICS
Structure of a Flow with Periodic Variation of Momentum. L. A. Virulis, A. L. Genkin, and L. P. Yarin. .................................................. (T) 192 3 532
Calculation of the Wall Turbulence Constant. M. A. Gol'dshlik, and S. S. Kutateladze. .................................................. (T) 194 3 535
A Note on Unsteady Near-Sonic Flows. E. V. Mamontov .................................................. (T) 197 3 538

MECHANICS
The Discrete and Continuous Spectra of the Radial Dirac Equation. L. A. Sakhnovich. .................................................. (T) 199 1 61
The Solution of Milne's Problem for the Bhatnagar–Gross–Krook Kinetic Equation. L. P. Stakhanov and P. P. Shcherbinin. .................................................. (T) 202 2 286

MECHANICAL ENGINEERING

PHYSICS
Conformally Flat Gravitational Fields Created by Dustlike Matter. V. I. Vashchuk .................................................. (T) 212 1 65
Excitation of Oscillations and Dissociation of Diatomic Molecules in Atom-Molecule Collisions in Gases at High Temperatures.
B. V. Kuksenko and S. A. Losev ............................................ (T) 215 3 69

Configuration Representation of Nucleon Interactions in the Superfluid Nuclear Model. V. Rybarska ............................................. (T) 218 1 73

Temperature Dependence of the Rupture Lifetime of Solids.
R. L. Salganik ........................................................................... (T) 221 1 76

Diamagnetic Phasemod in the Yield of a Magnetic Dipole, Vokhman and B. A. Tverskoi .......................................................... (T) 224 2 249

Dissociation of Oxygen Molecules by O$_2$ - O$_2$ and O$_2$ - O Collisions.
S. A. Losev and O. P. Shatalov .................................................. (E) 227 2 293

Microscopic Theory of a Steady Josephson Current. S. V. Svizhetskii
and V. A. Slusarev ................................................................... (T) 230 2 296

Some Problems of Statistical Physics in StronglyExtended Bodies.
Yu. S. Tupkin and A. S. Shvarts .................................................. (T) 233 2 299

Polymorphous Transformation in Organic Crystals. M. A. Tseneva... (E/E) 236 2 302

Negative Dispersion of Light in CaWO$_4$:Nd$^{3+}$ Crystals. N. K. Bel'inskii
and D. A. Mukhamedova .................................................................. (E) 240 3 545

EPR in Glass Containing Two Transition Elements. Appearance of
Cross Relaxation and Spin Diffusion Processes in Some
Cobalt-Containing Glasses. L. D. Bogomolov, V. N. Lazukin
and N. V. Petrovykh .................................................................. (E) 243 3 548

New High-Resolution Photographic Emulsions and Their Investigation
by Means of Holographic Resolometry. Yu. A. Bykovskii,
A. L. Larkin, A. A. Markilov, R. V. Ryabova,
and D. M. Samoilovich .................................................................. (E) 246 3 552

Synthesis of Diamonds of the "Carbonado" Type. L. F. Vereshchagin,
E. N. Yakovlev, T. D. Varfolomeeva, V. N. Siessarev,
and L. E. Shireneberg .................................................................. (E) 248 3 555

TECHNICAL PHYSICS

Secondary Maxima in the Scattering of X-Rays by Finely Divided
Polycrystals. L. V. Smushkov and V. F. Tkachenko ......................... (E/T) 250 1 79

Concerning the Nature of the Physical Yield Point and Brittle
Fracture. V. F. Terent'ev ................................................................ (E) 253 3 83

Automatic Cathode-Ray Tube Scanner. V. F. Borisovskii,
N. D. Dikusar, V. V. Ermolaev, A. D. Zlobin, I. N. Kukhtina,
I. I. Skryl', A. I. Filippov, V. N. Shigaev, and V. N. Shkundennov . (E) 256 2 306

Non-Stationary Radiation Diffusion in Metals. L. N. Byistrov,
L. I. Ivanov, and Yu. M. Platov .................................................. (T/E) 259 2 309

Heat of Ordering for Ni$_2$Cr Alloy. E. Z. Vintaikin, V. P. Itkin,
B. M. Mogutnov, and G. G. Urushadze ........................................... (E) 263 2 313

Explosion MHD Generator with Superconducting Magnet System.
V. A. Kirillin, V. A. Al'tov, E. I. Asinovskii, A. N. Dremin,
F. I. Dubovitskii, V. B. Zenkevich, Yu. A. Kuznetsov,
E. F. Lebedev, S. D. Savrov, V. V. Sychev, and A. E. Sheindlin ...... (E) 266 2 316

Kinetics and Mechanism of the Breakdown of Graphitic Materials
During Intense Abrasion. L. A. Plutalova, G. B. Finkel'shtein,
Z. A. Panyushcheva and L. P. Grigor'enko .................................... (E) 269 2 320

Model of Physical Fatigue Limit of Metals and Alloys. V. F. Terent'ev (T) 273 2 324

Available From The American Institute of Physics
Vol 14, No 3, Sept 1969

- 147 -
Energy Exchange between Active Centers in Glass.
N. S. Belokremitskii, M. E. Zhabotinskii, A. D. Manuil'skii,
Yu. P. Rudnitskii, M. S. Soskin, V. V. Tsapkin, and G. V. Efrem

Predicting the Types of Reaction Involved in the Formation of
Metallic Phases and Estimating Their Range of Homogeneity by
Means of an Electronic Computer. E. M. Savitskii,
Yu. V. Devingtal', and V. D. Gribulya

THEORY OF ELASTICITY
Dynamic Problem for a Plane with a Cut. V. Z. Parton
and B. A. Kudryavtsev

ERRATUM

Available From The American Institute of Physics
Vol 14, No 3, Sept 1969
# Table of Contents

Bibikov, Ju. N. *On the existence of invariant tori in the neighborhood of the equilibrium state of a system of differential equations* .................................................. (9-12) 261

Drožžinov, Ju. N. *Stabilization of solutions of the heat-conduction equation* ........................................ (13-16) 266

Dynkin, E. B. *Game variant of a problem on optimal stopping* .................................................. (16-19) 270

Zaicev, V. *Infinite spectra of topological spaces and their limit spaces* ........................................ (20-23) 275

Zykovskiî, S. I.; Poljak, R. A. and Prumak, M. E. *Two methods of search for equilibrium points of a person concave games* .................................................. (24-27) 279

Kaplevič, M. I. *On the solution of Cauchy iteration problems in basis series* ........................................ (28-31) 383


Ošman, E. V. *Continuity of metric projection and some geometric properties of the unit sphere in a Banach space* .................................................. (34-36) 291

Perni, N. V. *Algorithms connected with predicates and Boolean functions* ........................................ (37-39) 294

Prilepko, A. I. *Exterior inverse problem of the volume potential of variable density for a body close to a given one* .................................................. (40-42) 298

Solev, V. N. *Asymptotic behavior of prediction error in the multidimensional case* ...................................... (43-46) 302

Subhankulov, M. A. and An, F. I. *On the Tauberian theorem of M. V. Keldyš* ........................................ (47-50) 306

Sudakov, V. N. *Gaussian measures, Cauchy measures and d-entropy* .................................................. (51-53) 310

Fedorčuk, V. V. *Mappings that do not reduce dimension* .................................................. (54-57) 314

Bondareva, O. N. *Solution for a class of games with empty core* .................................................. (58-60) 318

Borovikov, V. A. *On the problem of discontinuity decay for a system of two quasilinear equations* .................. (250-252) 321

Gelig, A. H. *Stability of pulse systems with frequency modulation* .................................................. (253-255) 324

Gudiev, A. H. *Hölder continuity of generalized solutions of elliptic equations with coefficients in spaces with mixed norm* .................................................. (256-259) 328

Gudkov, D. A. *Position of the circuits of a curve of sixth order* .................................................. (260-263) 332

Demjanovič, Ju. K. *Uniform convergence of variational-grid methods* .................................................. (264-266) 336

Morozov, V. A. *A stable method for computation of the values of unbounded operators* .................. (267-270) 339

Rivkind, V. Ya. and Uralceva, N. N. *A priori estimates for quasilinear parabolic equations with discontinuous coefficients and their use in approximation methods* .................................................. (271-274) 343

Rjaben′skiĭ, V. S. *On kernels of spectra of families of operators* .................................................. (275-277) 348

Halimskiĭ, E. D. *The generalized segment and its use in homotopy theory* .................................................. (278-281) 351

Arsenev, A. A. *Behavior of the generalized solution of a mixed problem for the wave equation in an almost closed domain* .................................................. (495-506) 154

*Available From The American Mathematical Society
Vol 10, No 2, March-April 1969*
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Russian page nos.</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borovskov, V. A.</td>
<td>The asymptotic behavior as $t \to \infty$ of certain solutions of</td>
<td>(1195-1202)</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>a system of two quasilinear equations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Velčenkov, V. V.</td>
<td>Instability of discrete systems</td>
<td>(1308-1309)</td>
<td>364</td>
</tr>
<tr>
<td>Egorov, Yu. V.</td>
<td>A priori estimates for first-order differential operators</td>
<td>(1507-1508)</td>
<td>568</td>
</tr>
<tr>
<td>Ibragimov, I. A. and Solov, V. N.</td>
<td>A condition for regularity of a Gaussian stationery process</td>
<td>(1709-1712)</td>
<td>371</td>
</tr>
<tr>
<td>Keldyš, L. V.</td>
<td>Topological imbeddings of simple arcs and closed curves in $E^3$</td>
<td>(1917-1919)</td>
<td>376</td>
</tr>
<tr>
<td>Landis, E. M.</td>
<td>Necessary and sufficient conditions for regularity of a boundary point in the Dirichlet problem for the heat-condition equation</td>
<td>(2117-2120)</td>
<td>380</td>
</tr>
<tr>
<td>Rjaben'kiǐ, V. S.</td>
<td>The operator of boundary projection</td>
<td>(2321-2323)</td>
<td>385</td>
</tr>
<tr>
<td>Samarskii, A. A.</td>
<td>Two-layer iteration schemes</td>
<td>(2534-2537)</td>
<td>388</td>
</tr>
<tr>
<td>Birman, M. Š.</td>
<td>Some applications of a local criterion for the existence of wave operators</td>
<td>(2735-2738)</td>
<td>392</td>
</tr>
<tr>
<td>Bicadze, A. V. and Samarskii, A. A.</td>
<td>On some simple generalizations of linear elliptic boundary problems</td>
<td>(2939-2940)</td>
<td>390</td>
</tr>
<tr>
<td>Borisov, Ju. G. and Turhabin, A. S.</td>
<td>On the Cauchy problem for linear non-homogeneous differential equations with retarded argument</td>
<td>(3141-3144)</td>
<td>401</td>
</tr>
<tr>
<td>Gohberg, I. C. and Krupnik, N. Ja.</td>
<td>On the spectrum of singular integral operators in $L_p$ spaces with weight</td>
<td>(3345-3348)</td>
<td>406</td>
</tr>
<tr>
<td>Kokilashvili, V. M.</td>
<td>A direct theorem on mean approximation of analytic functions by polynomials</td>
<td>(3549-3552)</td>
<td>411</td>
</tr>
<tr>
<td>Kordzadze, R. A.</td>
<td>On the index of singular integro-functional operators</td>
<td>(3752-3755)</td>
<td>415</td>
</tr>
<tr>
<td>Korotkov, V. B.</td>
<td>On the Carleman nature of the resolvents of certain linear operators</td>
<td>(3957-3959)</td>
<td>419</td>
</tr>
<tr>
<td>Laptev, G. I.</td>
<td>On an operational calculus for unbounded linear operators</td>
<td>(4160-4163)</td>
<td>423</td>
</tr>
<tr>
<td>Radžabov, N.</td>
<td>Solution of problems of Riemann and Hilbert type for a generalized Cauchy-Riemann system with singular line</td>
<td>(4364-4367)</td>
<td>427</td>
</tr>
<tr>
<td>Rofe-Beketov, F. S. and Hristov, E. H.</td>
<td>Some analytical questions and the inverse Sturm-Liouville problem for an equation with highly singular potential</td>
<td>(4568-4571)</td>
<td>422</td>
</tr>
<tr>
<td>Čudnovskii, D. V.</td>
<td>Nonstandard analysis and homeomorphisms of $B$-spaces</td>
<td>(4777-4779)</td>
<td>336</td>
</tr>
<tr>
<td>Adelson-Vel'skiǐ, G. M.; Vel'skiǐ, B. Ju.; Leman, A. A. and Faradžev, I. A.</td>
<td>Example of a graph without a transitive automorphism group</td>
<td>(4975-4976)</td>
<td>440</td>
</tr>
<tr>
<td>Baĭkov, V. A.</td>
<td>Fatou's theorem for regular quaternion functions</td>
<td>(5177-5180)</td>
<td>442</td>
</tr>
<tr>
<td>Glebov, N. I.</td>
<td>On a generalization of the Kakutani fixed point theorem</td>
<td>(5391-5395)</td>
<td>450</td>
</tr>
<tr>
<td>Dišurazov, A.</td>
<td>On a Beltrami system of equations degenerating on a line</td>
<td>(5584-5588)</td>
<td>449</td>
</tr>
<tr>
<td>Elmov, B.</td>
<td>Subspaces of dyadic bicompacta</td>
<td>(5787-5790)</td>
<td>453</td>
</tr>
<tr>
<td>Lerner, M. E.</td>
<td>Maximum principles for elliptic-hyperbolic equations of mixed type of the second kind</td>
<td>(5991-5994)</td>
<td>457</td>
</tr>
<tr>
<td>Plotkin, A. I.</td>
<td>Isometric operators in spaces of summable analytic and harmonic functions</td>
<td>(6195-6196)</td>
<td>461</td>
</tr>
<tr>
<td>Rotenberg, E. Ja.</td>
<td>On the problem of control on subspaces in interconnected systems</td>
<td>(6399-1000)</td>
<td>464</td>
</tr>
<tr>
<td>Aleksandrov, M. A.; Arzeladrze, N. M.; Lekîšvilli, N. L. and Pertaja, K. V.</td>
<td>On expansions of functions in approximately orthornormalized systems</td>
<td>(1207-1210)</td>
<td>469</td>
</tr>
<tr>
<td>Bočvar, D. A.</td>
<td>Measures of kernels of reducibility axioms</td>
<td>(1211-1214)</td>
<td>473</td>
</tr>
</tbody>
</table>

Available From The American Mathematical Society
Vol 10, No 2, March-April 1969

- 150 -
CORRECTIONS

The following corrections should be made in the English translation.

S. N. Černikov, Groups with given properties for systems of infinite subgroups, Vol. 7 (1966), no. 6, 1563–1568.

On page 1567, second line of Theorem 5, direct product should be semidirect product.

B. M. Budak; A. Vin'oli and Ju. L. Gaponenko, On a method of regularizing the extremal problem for a continuous convex functional, Vol. 10 (1969), no. 1, 4–7. In the table of contents and at the head of the article the second author's name should be A. Vignoli.

The following corrections are translated from pages 8 and 374 of Tom 185.

Li Hoang Tu, Approximate minimax property of the $R^2$ test, Vol. 9 (1968), no. 3, 689–690 (Russian Tom 180, 793–794).

On page 690 Equations (2) and (3) should be

\[ O(1/N^k) \leq a \leq 1 - O(1/n M), \]

\[ 1/N \ln N \leq \delta < 1. \]  

The first line of Lemma should be

**Lemma.** As $N \to \infty$ and for $(1/n)N \ln N \leq \delta \leq (12k\ln M)/N$, $2/N \leq C \leq (12k\ln M)/N$ there is a condition.


In Theorems 2 and 3 the assumption should be added that $\mathbb{B}(B) \subset \mathbb{R}(A)$, and correspondingly in the corollaries that $\mathbb{B}(A) \subset \mathbb{R}(A)$.

Available From The American Mathematical Union.

Vol 10, No 2, March-April 1969
### CONTENTS

**AERODYNAMICS**

Flow of a Dissociating Gas in the Absence of Local Thermodynamic Equilibrium. V. M. Sarychev. .................. (T) 287 5 1005

**ASTRONOMY**


**CRYSTALLOGRAPHY**

Crystal Structure of \(K_2\text{Mn}_2\text{Zn}_4\text{Si}_4\text{O}_{16}\) = \(K_2\text{Mn}_2\text{Zn}_4[\text{Si}_4\text{O}_{16}]\). D. Yu. Pushcharovskii, E. L. Pobedimskaya, and N. V. Belov. (E) 274 5 345

Hyperfine Structure of the Bragg Maxima in Mössbauer Spectroscopy. M. A. Andreev and R. N. Kuz'min ................. (T) 263 6 1282

Double-Beam Reflection in Crystals and Its Use in Electrooptic Modulators. Yu. É. Kamach, E. N. Kozlovskii, V. M. Ovchinnikov, and V. A. Shamburov. ................................ (T/E) 301 6 1285

Crystal Structure of Tundrite. N. G. Shumyatetskaya, V. V. Ilyukhin, A. A. Voronkov, and N. V. Belov .......................... (E) 304 6 1289

**FLUID MECHANICS**

Application of Dimensional Analysis to Problems of Interplanetary Gas Motion Associated with Solar Flares. V. P. Korobeinikov. (T) 302 6 1254

Collisions between Solid Particles in Liquids. V. P. Myasnikov ....... (T) 312 5 1258

**MATHEMATICAL PHYSICS**

The Second Homogeneous Imperfect-Thermal-Contact Boundary-Value Problem. A. M. Abasov .......... .................. (T) 315 5 1010

Contour Integral Representation of Normal Wave Expansions. P. E. Krasnushkin .................. .................. (T) 318 5 1014

The Problem of the Gravitational Stability of a Dust Cloud. L. G. Khazin and É. L. Shnol ......... (T) 322 5 1018

Expansion in Normal Waves in a Spherically Stratified Medium. P. E. Krasnushkin .......... .................. (T) 326 6 1262

(Contd)
MECHANICS
A Relative Motion Model to Describe Cable-Checked Cosmic Vehicle Approach. V. N. Soshnikov

PHYSICS
Weak Shock Waves in a Thermo-Relaxing Medium. G. M. Antyukh
Detecting Soft X-Radiation with Electron-Optical Converters. V. A. Bryzgunov, M. M. Baturin, and M. A. Mokhov
On the Real Value of the Pressure of the Polytypic Transformation in Iron. L. F. Vereshchagin, A. A. Semyachkin, and Yu. A. Sadykov
Delayed Nuclear Fission. E. E. Berlovich and Yu. P. Novikov
Variational Analysis of Isotropic EPR Spectra in Fourier Space. S. N. Dobryakov and Ya. S. Lebedev
Motion of a Medium with Ultrarelativistic Velocities in the General Theory of Relativity. K. P. Stunyakovich
Electron Paramagnetic Resonance of the Mn2+ and Gd3+ Ions in Chalcogenide Glasses TIASe2, and TIASe in the 2 and 5.3 cm Ranges. I. V. Chepeleva

TECHNICAL PHYSICS
Effect of Deviations from Stoichiometric Composition on D. Fusion-Controlled Processes in Interstitial Phases. R. A. Anderleiskii, L. I. Spivak, and A. E. Tulin
Correlation of Calculated Estimates of the Wear on Friction Surfaces with Experiment. I. V. Kragel'skii, E. P. Nepomnyashchii, and G. M. Kharch
Rupture Strength Criteria for Brittle Bodies under Conditions of Torsion, Tension and Torsion, and Compression. A. I. Markov, N. V. Mikhailov, and P. A. Rebinder
Quartz Torsional-Vibration Resonators. P. G. Podznyakov and I. G. Vasia
Rebinder Effect in Hydrogen Atmosphere. G. V. Karpentskii, I. I. Vasil'tenko, M. G. Khitarishvili, and V. S. Fedchenko
Kinetics of Spreading Apart of a Dislocation Polygon Wall. V. A. Solob'ev
Manifestation of the Adsorption-Induced Loss of Strength Associated with Reversing Sliding Friction. V. D. Evdokimov and P. A. Rebinder
Ordering Processes in Neutron-Irradiated Martensite. V. S. Kritskaya and V. A. Il'ma
On the Microinhomogeneity of Pig Iron. A. M. Samarin and V. A. Izmalkov

Available from the American Institute of Physics
Vol 14, No 4, Oct 1969
SOVIET ELECTROCHEMISTRY
A Translation of Электролимия

Volume 5, Number 1
January, 1965

CONTENTS

Contents

Determination of Absolute Ionic Entropies from Kinetic Data–L. I. Kritskaya
Equations for Catalytic Polarographic Currents resulting from successive chemical
Reactions on an Electrode–Yu. I. Tur’yan
Electrochemical Reactions in Aqueous Electrolytes. IV. Electrochemical Reactions
at a Germanium Electrode–I. G. Sheshtumihuk and E. A. Efimov
Theoretical Aspects of the Effect of Preliminary Electrode Potential on the Height
of the Anodic Peak in the Electro-Dissolution of Metals from Amalgams
–A. G. Stromberg and L. G. Rautkaya
Continuous Cleaning of a Metal Surface as a Method for Studying Electron Processes
–Yu. D. Timofeev, N. M. Strukov, and L. P. Verkhovin
Applicability of the Newton Equation to Amalgams in Very Dilute Solutions
–E. V. Leontovich, V. V. Losev, and M. A. Bemborovskii
Electrocapillary Curves and Overvoltage of Hydrogen on High-Purity Celullum
–A. M. Moretov, L. A. Bagotskaya, and E. A. Pruts
Low Temperature Oxidation of Molecular Chlorine on a Platinum Anode
–T. Ya. Krainova, É. V. Kasatkina, M. I. Rozental’, and V. I. Veselovskii
Thermodynamics of Anodic Oxidation of Methane in Molten Carbonates–A. L. L’vov
Electrochemical Oxidation of Carbon Monoxide in Aqueous Solutions. Oxidation
of Carbon Monoxide in Alkali Solutions on Ag and Cu Electrodes
–O. G. Tyurinova, N. B. Miller, and V. I. Veselovskii
Kinetics of a Redox Reaction in the Fused System Bi–BiCl3 Studied by F & Faraday
Investigation of Surfaces of Cold-Worked Metals by Measurements of the Electron Work
Function–L. A. Andreev, A. A. Zhukovskii, and A. A. Galiev
Solubility of Hydrogen in Alloys of the Nickel–Palladium System–T. V. Lipets,
Zh. L. Vatt, and I. P. Tverdovskii
Electric Conductivity of Aluminum Hydrides of the Alkali Metals in Diethyl Ether,
Tetrahydrofurane, and Diglyme–N. M. Alpatova, D. N. Madin, V. V. Savrilenko,
Yu. M. Kesian, and L. I. Zakharkin

BRIEF COMMUNICATIONS
Investigation of the Ag(V)–Ag(III) System in Neutral and Alkaline Solutions
–L. P. Shug’yan, E. V. Davydov, and Yu. A. Koz’mine
Differential-Capacity Studies of the Adsorption of Aliphatic Alcohols on Lead
–N. B. Grigor’ev and D. N. Murzhabaev
Zero-Charge Potentials of Individual Faces of Silver Single Crystals–S. Byurovskii,
T. Vitov, É. A. Svet’yanova, and A. Popov

Available From Consultants Bureau

- 154 -
Influence of pH on the Process of Anodic Oxidation of Graphite—Yu. I. Koldashov
and N. G. Mal'eva .......................................................... 82 83
Cathodic-Acetic Polarization during Ruthenium Deposition—A. V. Novgorodov
and E. S. Novgorodova .................................................... 85 86
Use of a Glass Ind.-Sodium Electrode to Study the Platinum Electrode in Pyridine Solutions
—A. A. Kolot ................................................................. 89 90
The Nature of the Chemical Stage of the First Kinetic Wave of the Methanol-Hydroxide Complex—Yu. I. Fur'yan and O. N. Mal'kowskaya ..................................................... 92 93
The Impedance of a Copper Electrode in Sulfate Acid Solution—Yu. I. Dimitriev
A. A. Murzina, and A. S. Kolot ........................................... 95 96
Anodic Behavior of Aluminum in a Frozen Chloride Electrolyte—Yu. R. Del'mark
V. F. Makagon, and A. Yu. Zhigulova .................................. 98 99
Oxidation of Methanol as an Example of Liquid Porous Electrode Operation. II. Polari-
zation Characteristics of Different Electrode Layers—Yu. M. Velevich, I. F. Gurevich,
and V. S. Bagotskii .......................................................... 101 111
The Transference Numbers of Ions in Concentrated Solutions of KCl, NaCl, FxCl, NaNO3,
and NaKCl at 5, 25, and 40°C—A. M. Sadzhutin, A. F. Kozhukhov,
and I. A. Pospelchevskaya ................................................ 102 114
Association Constants of Acids in Acetic Anhydride—K. I. Bytsenova, N. A. Goncharova
and V. V. Petroskaya ....................................................... 107 116
Electrical Conductivity of Solutions of Potassium Triiodide in Methanol, Dimethylformide,
and Acetonitrile—E. Ya. Gorenstein and A. F. Gorenstein ........... 110 119
Thin Liquid Films in Capillaries Stabilized by Vaporization—S. Ya. Chizhik .................................................. 115 122
The Adsorption Behavior of Aromatic Cations—B. B. Damaskin and E. L. Dyrsheva .... 116 124
Oxidation of Methanol as an Example of Liquid Porous Electrode Operation. III. Study
of Mixed Operating Conditions Using Comparison Characteristics—Yu. M. Velevich,
I. G. Gurevich, and V. S. Bagotskii .................................... 123 128
The Mechanism of Hydrogen Evolution on Liquid Gallium from Aqueous Solutions —
I. A. Bagotskaya, N. M. Genkina, and V. G. Botoyov .................. 127 132

Available From Consultants Bureau
SOVIET ELECTROCHEMISTRY
A translation of Elektrokhimiya

Volume 5, Number 2
February, 1969

CONTENTS

The Mechanism of Electrode Reactions during Anodic Oxidation of Perchloric Acid to Perchloric Anhydride—E. V. Kasatkina, K. I. Bozentaf', A. A. Yakovleva, and V. I. Veselovskii
The Null Points of Metals in Molten Salts—Yu. K. Pechinetski and V. S. Kichin
High-Temperature Electrochemical Initiation of Oxygen and Hydrogen
—A. I. Kasat'pichkov and L. G. Antonov
The Thermodynamics of the Anodic Oxidation of Gaseous Hydrocarbons in Molten Carbonates—A. L. L'vov, and S. V. Shmakov
The Effect of Hydrazine on the Reduction of Oxygen on Platinum—A. G. Kicheev, and N. V. Korov
Current Distribution in a Porous Electrode—V. A. Pronov, V. S. Boroviov, and P. D. Luk'ev

BRIEF COMMUNICATIONS

Photoconductivity of an Anthracene Electrode in the Iodine—Iodide System—B. T. Loshkin and L. I. Bogul'skii
Polarization of a Platinum Electrode in Contact with a Solid Electrolyte of 0.88 ZrO₂ + 0.12 Sc₂O₃—S. V. Karpachev and Yu. M. Orshinikov
Limiting Current to an Electrode on the Inner Surface of a Duct—E. A. Klimenkov, B. M. Grafov, V. G. Levich, and I. V. Strizhevskii
Kinetic Parameters of Electrode Reactions of Metal Cations—A. I. Chernomorski
Chronopotentiometric Investigation of Diffusion of Chlorine in Dilute Chlorides—L. S. Leonova, Yu. M. Ryabushin, and E. A. Ushen
Investigation of the Unstable Intermediate Products of the Electroreduction of Acetophenone and Benzaldehyde by Means of the Rotating Disc—Ring Electrode, and EPR and UV Spectroscopy—A. D. Karasov and L. N. Nekrasov
Noise during Anodic Oxidation of Cadmium Sulfide—V. A. Tyagai and N. B. Luk'yanchikova
Anodic Solution of Metals at High Current Densities. I—A. D. Davydov, V. D. Khaichev, and R. N. Kabanov

Available From Consultants Bureau
- 156 -
ELEKTROKHIMIYA
Vol 5, No 2, 1969

Comparison of the Differences in Work Functions and Zero-charge Potentials of Metals.

III. Platinum—L. A. Tokman, V. A. Shumovskaya, and B. Kh.界面enem

Kinetics of Electrode Processes at a Solid-Iron Electrode—V. V. Gontoroskii,

A. V. Aksenov, and V. V. Ionev

Effect of Cobalt (II) Chloride on the Bulk Catalytic Polarographic Wave for Hydrogen

—V. P. Galkin, and S. G. Maranovski

Investigation of the Electrochemical Reduction of Sulfur on Platinum in the Presence

of Chloride Ions—L. I. Rozentsev, and V. V. Kachanov

Electrochemical Behavior of Pseudolat—Free (100) Faces of Monocystallic Silver Electrode


Joint Discharging of Iron of the Basic Metal (Nickel) and Impurity Wt%—S. V. Kupich

and A. L. Revinyan

LETTERS TO THE EDITOR

Work Function of Alkali Metal Amalgams—V. B. Lazarev and Yu. I. Malov

Mechanism for Anodic Pitsolution and Electrodeposition of Palladium in Chloride

and Brome Electrolytes—V. I. Kravtsin and M. I. Zelenkii

The Russian press date (podpisanio k печати) of this issue was 4/24/1969.

Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

- 157 -
CONTENTS

Part 1

ELEKTROSVYAZ
Vol 24

A. I. Kalinin: Statistical Distribution of Thermal Noise Power in Tropospheric Link Channels ......................................................... 1
V. I. Tikhonov: Noise Immunity of Optimal Methods of PSK and FSK Signal Reception ................................................................. 15
P. N. Kopysov: Analysis of the Accuracy of Nonlinear Distortion Correction ................. 25
V. O. Kolev: Spectrum of a Signal with Harmonic Phase Modulation ................................................... 28
A. G. Goychanev: Effect of Faulty Operation of Terminal Sets on Data Transmission Rate ............................................................................ 33
V. N. Sobolev and V. N. Telepnev: Simple Methods of Clipped Speech Regeneration .......... 37
N. F. Genkina: Time Shifts in Data Transmission Over Parallel Channels with Correlated Failures .................................................. 45
A. N. Yefimov: Optimizing Telemetric Data Transmission Time in an Error-Correcting System ........................................................................... 49

BRIEF COMMUNICATIONS

V. V. Sokolov and V. I. Nazarov: A Method of Group Synchronization in PSK Digital Data Transmission Systems ........................................ 53
A. K. Kustarev and N. G. Deryugin: Standardization of the Main Parameters of a Complete Color Television Transmission Channel 55

TELECOMMUNICATIONS ABROAD

N. A. Ponomareva: Digital Data Transmission in Duobinary Coding Systems ............ 60

LETTER TO THE EDITOR


Part 2

RADIO TekhnikA
Vol 24

I. R. Sivakov: Limit Possibilities of Multifrequency Signals in a Multipath Communication Channel ........................................................................ 67
N. L. Toplov: Assessment of the Noise Immunity and Channel Capacity of Sampled-Information Transmission Systems Using Signals of Complex Waveform ................................................................. 70
Z. M. Eseninov and B. V. Tokarev: Effectiveness of Systems with Information Feedback in Comparison with Unidirectional Systems, and the Noise-Immunity Requirements for the Return Channel ...................................................... 77

Available From The Institute of Electrical and Electronics Engineers
Yu. A. Chernov: Some Inaccuracies in the Appleton-Bornstein Equation for the Skin
Disturbance .......................................................... 52
M.A. Sidorov: Multichannel Detection Program Minimizing the Mean Error in a
Multichannel Communication System .................................. 56
V.A. Sadov: Assessment of the Time Delay of Submerged Signals Transmitted Through
a Generalized Radio Channel ........................................ 92
L.A. Chechik: Determination of the Spectra of Some Frequency-Modulated Signals ........ 96
S.K. Savin: Power-Polynomial Approximations to the Characteristics of Nonlinear
Elements .............................................................. 101
K.F. Muller: Filling the Nulls of the Radiation Pattern of Television Transmitter
Antennas .................................................................... 109
A.M. Vorob'ev and V.I. Nepšenkov: Analysis of a Self-Excited Power Distributor
RC-Circuit, Allowing for the Active Element Input and Output Impedances .... 111
M.V. Vambriškiš and V.S. Nadiarov: Central Signal Correction in Micro- 
Ferrite Modulators ...................................................... 113
G.I. Kopsh: Automatic Emitter Bias in High-Power Transistor Transmitter Stages .... 115
O.F. Bobb and E.R. Gribov: Small-Signal Calculation of the Amplitude of the Third-
Order Combination-Frequency Component in a Transistor Amplifier ......... 125
Selective Transistor Amplifier ......................................... 129
S.I. Vestyak and G. Ye. Red'kin: Modulator-Pulse Waveform Allowing for
Artificial-Line Losses .................................................. 135
A.I. Viches: Pulse Output of a Magnetic Reproducing Head ...................... 141

BRIEF COMMUNICATIONS

N.N. Glazkov: Analysis of Parallel Operating Resonators ............................. 144
A.M. Shlamov and Yu. S. Daniche: Synthesis of Four-Terminal Networks on Specified
Transfer Function ................................................................ 146
V.G. Prisman and M.I. Finkel'shtein: Transmission of Correlated Noise Through
Comb Filters .................................................................. 149

EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

Soviet Usage American equivalent
Arch csh^{-1}
Arcth coth^{-1}(cTh^{-1})
Arsh sinh^{-1}
Arsh tanh^{-1}
arc cos cos^{-1}(arc cos)
arc cot cot^{-1}(arc cot)
arc sin sin^{-1}(arc sin)
arc tan tan^{-1}(arc tan)
ch csh
eh cosec cosec
etg cot (ctg)
cth coth (ctnh)
rot curl
sech sech
sh sinh
tg tan
th tanh

Available From The Institute of Electrical and Electronics Engineers
Contents

Volume 36, Number 10  October 1965

A Study of Heat Transfer in Medium Power Electrical Machines
A. I. Borsenko, I. M. Postnov, G. G. Sebesthins, and
A. I. Yakovlev ........................................... 3

Magnetic Field Distribution in Brushless Electrical Machines
with Externally Closed Magnetic Circuits, A. I. Berimov,
V. G. Andreev, and Ya. A. Golubenko ..................... 8

Starting a Brushless Synchronous Motor Having Rotating
Semiconductor Rectifiers, V. I. Logimov ................... 12

Communciation of a Direct Current Motor in a Liquid Dielectric
Medium: B. M. Plyushch and L. I. Ryskin ................. 14

Additional Eddy Current Losses in Transformer Windings
E. A. Man'kina, D. N. Morozov, and V. V. Alferova ........ 16

Consolidated Determination of Power Transformer Costs:

Design of Converters for Frequency Control of Electric Drives.
V. A. Shubenko, R. T. Shreiner, and V. I. Likhosherst ........ 23

Analysis of Operation of Magnetic Amplifiers with Self-Excitation
and with a Resistance-Inductance Load, A. G. Zdrok and
A. A. Salutin ............................................. 27

Phase Angle of Back-Fires in High-Voltage Discharge Rectifiers.
S. M. Sirota .............................................. 30

Electrical Contacts for Relays Applied in Railway Transport.
N. V. Dmykovskii and Yu. V. Miroshnov ................. 33

Mechanized Winding of Enamelled Wire, L. P. Medvedev, F. A.
Savchenko, and Yu. I. Mikhailus ......................... 35

Oxide-Coated Aluminum Wire for Induction Motors.
A. P. Zubarev ........................................... 38

Equipment for Testing Low Power Electric Motors, Yu. B. Panferov,
Yu. F. Chubukov, and V. G. Kul'min ...................... 40

Improvements in Designers' Documentation Systems for
Standardized Electric Motors, G. Ya. Shkil'ko .............. 44

Available From The Faraday Press

(Continued)
## Contents (cont’d)

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Calculation of Electrical Machines</td>
<td>49</td>
</tr>
<tr>
<td>The Quality of Commutation and the Choice of Current Density under the Brushes</td>
<td>51</td>
</tr>
<tr>
<td>Electric Strength Investigations of Long Strings of Insulators at Operating Voltages</td>
<td>55</td>
</tr>
<tr>
<td>Choice of Parameters for RC Networks in the “Double Wye with Interphase Transformer”</td>
<td>59</td>
</tr>
<tr>
<td>Power Considerations when Drying out by Electric Current</td>
<td>62</td>
</tr>
<tr>
<td>Notes on Conductors for 500 Hz Frequency Excitation Circuits of Large Generators</td>
<td>64</td>
</tr>
</tbody>
</table>

Available From The Faraday Press
Contents  Volume 36, Number 11  November 1965

Heating of Self-Ventilated Asynchronous Motors With Frequency- 1
Type Speed Control A. S. Sadilov and R. S. Sardakov
Overhauling by Controlled Miniature Induction Motors, Z. Baskev
and F. M. Lepekhina  .  7  5
Starting of a Permanent-Magnet Single-Phase Synchronous 12  12
Capacitor Motor F. M. Yefremov and V. P. Kolesnikov
Induction Motor Drives With Saturable Reactor Control in
the Chemical Industry M. N. Sokolov and A. V.
Shayunenko
Progress of Work on High-Voltage Rectifiers F. I. Butsen,
N. S. Khmoy, A. A. Petisev, and N. F. Stepanov
Miniature DC Motors With Static Speed Regulators
E. A. Ledochonnikov, I. V. Bolm-Sokolov, L. A. Morduljiko
and V. G. Sheminov
Heat Release in Channels Between Frame-Ribbing of Enclosed
Asynchronous Motors E. B. Kouslev, A. N. Burkovskii,
and A. T. Trizarenko
Magnetic Amplifiers and Their Application to Electric Drive
and Automation S. S. Ruyzen and T. Kh. Stefanovich
Quality Control Testing of Disc Dielectors V. A. Volkensu
Rectifier Plant Type VUTSS-34/230 S. I. Filsman
Thyratron Voltage Stabilizer I. S. Kozypin V. V. Tashchyan,
and V. V. Shatskii
Tape-Feed Mechanism for Magnetic Tape Memory of Computer
Type VNIIEM-2 V. I. Adaiko R. R. Pure and A. N.
Fedoseev

Available From The Faraday Press

Single Issue $25
Annual Subscription $160
©1965 by The Faraday Press, Inc
All rights reserved. This publication or parts thereof may not
be reproduced in any form without permission of the publisher.

The Faraday Press, Inc.
Contents (cont’d)


Design of High-Frequency Transformer for Heating Insulator A. V. Ranson and V. V. Valaban 47   60

Formation of Steady Particles by Asynchronous Alternating Current. Z. I. Nayar and D. A. Khadiy 49   51

Measurement of the Ideal Magnetic Screening Factor of a Cable Sheathing. V. V. Gaydys 53   64

K. A. Ludinov and A. N. Makushinskaya

Calculation of Synchronous Machine Damper Winding Currents With Allowance for Tooth Failures of the Synchronous Field. A. I. Dalkin and A. V. Ivanov-Smolenski 54   59

Thermal Calculation of Asynchronous Motors With Axial System of Ventilation. I. M. Rusanovsky 57   74

Investigation of Heat Transfer From Turbulent Gas Flow in Rough Ducts of Electrical Machines. A. S. Patonov 60   77

Notes Concerning the Article “On Rotor Casting Methods”, B. N. Chertnik and N. P. Bachurikhin 63   80

Available From The Faraday Press
K. Krzepczynska, H. Bielawska, I. Bablik, J. Dobrak, K. Maciura: Diagnosis of the syndrome of hypogonadotropic hypogonadism in women. 195

L. Przybor, J. Baron, J. Krucyński, H. Kolza: Histologic studies of endometrial scrapings in women with infertility. 232

T. Pawlakowski, Z. Retarski: External male pseudohermaphroditism: diagnosis and classification. 216

T. Pawlakowski, Z. Retarski: Histologic structure of the gonads in the incomplete feminization syndrome. 221


M. Karasek: Morphologic and histochemical studies on the pineal gland in white rats during regeneration of the adrenals. 336

M. Karasek: Ultrastructure of the pineal gland of the white rat in the course of adrenal regeneration. 247

E. Radwańska, Z. Kwiatkowska: Application of Pettenkofer's reaction for determination of dehydroisoandrosterone (DHA) in the 11-desoxy-17-ketosteroid fraction. 260

J. Hasik, J. Kosowicz, L. Zwoźdznik: Hemodynamic studies in pituitary hypofunction. 255

M. Wałęczak, J. Socha, B. Pawlaczyn, S. Łuczak: A rare form of adenogenital syndrome in an 8-year-old boy. 70

K. Fellman, M. Wójtowicz, B. Pawlaczyn: Carcinoma of the thyroid gland in a 13-year-old girl with thyroid cretinism. 272

J. Aleksandrowicz, R. Klimek, Z. Ryn: A case of manic-depressive psychosis with 14-day cycles. Psychopathologic and endocrinologic observations. 280

K. Boczkowski, E. Herman, P. Nynkowski: Autoradiographic studies on the time of DNA synthesis in human chromosomes. 285

W. Król, S. Konturek, A. Dembińska: The influence of hypophysectomy and ACTH on development of atherosclerosis in rats. 298

R. Fico, J. Chamshi, K. Sawicka: Localization of pituitary gonadotropins in sheep ovaries. 305

M. Pawlakowski, M. Karasek, J. Kolasiński: The ultrastructure of the peripheral part of the hypophysis in white rats under normal conditions and after enucleation of the adrenal glands. 311

Available From CFSTI TT 68-50007/5-b
# Soviet Physics

## SOLID STATE

A Translation of "Fizika Tverdogo Tela"

(Russian Original) Vol. 11, No. 3, pp. 455-606, March 1969

Vol. 11, No. 3, pp. 455-702

September, 1969

## CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Intrinsic Absorption Edge in Gallium Phosphide. A. N. Pikhin and D. A. Yaskov</td>
<td>E 455</td>
</tr>
<tr>
<td>Influence of Subdomain Structure on the Magnetic Spectrum and Ferromagnetic Resonance of Thin Ferromagnetic Films. P. M. Rybak</td>
<td>E 456</td>
</tr>
<tr>
<td>Relation between the Dynamic High-Frequency Absorption and the Magnetic Aftereffect in Ferrites. L. B. Rozenbaum</td>
<td>E/T 467</td>
</tr>
<tr>
<td>Theory of Deep Acceptor Levels in Semiconductors. V. N. Ryazcov and K. K. Sevastinskii</td>
<td>T 473</td>
</tr>
<tr>
<td>Effect of the Number of Fe⁺ Exchange Couples on the Effective Magnetic Fields at the Nuclei of These Ions in Y₁₋ₓCaₓFe₃₋ₓVₓC₁₀ Garnets. V. A. Bokov, G. V. Popov, and S. I. Yushchuk</td>
<td>E 479</td>
</tr>
<tr>
<td>Theory of the Pinch Effect in InSb. A. E. Stefanovich</td>
<td>T 483</td>
</tr>
<tr>
<td>Role of Electron Excitation Multiplication in Luminescence and in Photographic Processes in Silver Halides. V. M. Belou, E. R. Il'mas, and N. S. Rezev</td>
<td>E 488</td>
</tr>
<tr>
<td>Thermal Mixing of Nuclear Spins and Double NMR in Paramagnetic Materials. V. A. Artarkin and M. I. Rodak</td>
<td>E/T 493</td>
</tr>
<tr>
<td>Influence of an Electric Field on the Motion of Phase Boundaries in Ferroelectric SnBr₃. T. S. Travina, L. L. Golik, M. I. Elinsco, V. I. Ignatkin, and V. A. Lyakhovitskaya</td>
<td>E 507</td>
</tr>
<tr>
<td>Antiferromagnetic Resonance in the Weakly Ferromagnetic Orthorhombic NaNiF₃. E. I. Golovenchits, V. A. Sanina, and A. G. Gurevich</td>
<td>E 521</td>
</tr>
</tbody>
</table>

Available From The American Institute of Physics

Vol. 11, No 3, Sept 1969

- 165 -
Temperature Dependence of Elastic Wave Attenuation in Lithium Niobate Crystals. V. V. Lemanov, G. A. Smolenekii, and A. B. Sherman ........ (E/T) 824 653
Instability in Ferroelectric Semiconductors. E. V. Chenskii .......... (T) 546 666
Model for Thermal Motion during Radiation Damage in Crystals V. M. Agranovich and V. V. Kirasov .......... (T) 580 674
Optical Absorption in the 0.6 Micron Range and Structure of the Conductivity Band in 6H α-SiC. G. B. Dubrovskii and E. I. Radovanova .......... (T) 545 680
Time and Temperature Dependence of the Strength of Single Crystals. S. N. Zhurkov, V. I. Betekhtin, and A. N. Rakhthbay .......... (F/T) 553 690
Conditions of Stability of an Anharmonic Crystal. N. M. Plakids .......... (T) 561 700
Nonlinear Size Effects in a Magnetic Field. V. E. Bockhov .......... (T) 570 724
Gradient-Recombination Instability of the Current in a Semiconductor A. I. Baranenkov and V. V. Osipov .......... (F) 574 720
Theory of Saturation of Nuclear Magnetic Resonance in a Rotating Frame. N. S. Bendiaishvili, L. L. Bulashvili, and M. D. Zviadadze .......... (T) 579 726
Mechanism of the Formation of Epitaxial PbS Films on Rocksalt L. S. Palatnik, V. K. Sorokin, and L. P. Zozulya .......... (T) 813 744

BRIEF COMMUNICATIONS

Nature of Donor Levels in Li3NH2-xO Solid Solutions. A. E. Chernov .......... (E) 904 751
The Role of Hyperbolic and Trigonometric Modes in Spin Wave Resonance. V. M. Sokolov .......... (T) 862 752
The Effect of Crystallographic Orientation on the Geometrical Arrangement of Dislocations Formed in Germanium by the Diffusion of Arsenic. I. M. Sukhodreva and L. D. Chernyakova .......... (T) 608 760
Thermal Etch Figures from Vaporization of KCl Crystals in Vacuum V. I. Tropimov and V. M. Luk’yanovich .......... (E) 610 762
Observation of the Instability of Nonlinear Ferromagnetic Resonance (NFLR). Ya. A. Monosov and V. V. Surin .......... (E) 812 764
The Energy and Effective Mass of Piezopolarons. A. A. Klyukov and E. P. Pokatilov .......... (T) 61 (contd

Available From The American Institute of Physics
Vol 11, No 3, Sept 1969

- 166 -
Special Features of the Measurement of Precessional in Ferroelectric Semiconductors. M. P. Mikalkevich and A. V. Serdyuk
Cross Sections for the Raman Scattering of Light in Stilbene and Sodium Nitrates Crystals. V. S. Gorelik, M. M. Sucebchinskii, and E. Novik
High-Frequency Lattice Vibrations of YFeO3-Type Orthoferrites.
D. G. Belevsin and L. I. Koshkin
Spectrum of Exciton-Complexes and Structure of Valence Bands of Silicon Carbide. I. S. Gorbunt and A. P. Krokhotin
EPR of Fe2+ Ions in Scheelite-Type Crystals. L. V. Vasilev, G. M. Zverev, L. V. Makarenko, I. I. Potkin, and A. I. Smirnov
Low-Symmetry Effects in EPR Spectra. M. L. Vasil'yan and L. I. Gavrilyuk
Mobility of F Centers in Doped Potassium Chloride Crystals.
Y. N. Pervishch and A. N. Iun
Vibrational Spectrum of a Lattice Containing Isolated Interstitial Impurities
A. N. Andrus and A. P. Zhernov
Electron Resonance in Thin Films with Specularly Reflecting Surfaces.
Influence of Small Admixtures of Co on the Induced Uniaxial Magnetic Anisotropy of Ni-Zn-Cr Ferrites. N. Z. Myryasov and V. A. Semikina
Structure of Lead Films on a (110) Face of Tungsten. D. A. Getodetskii and A. A. Yash'ko
Creep of CdS Single Crystals for Various Orientations of Slip Systems Relative to the Applied Stress. A. A. Bliudanov, O. M. Kuganezko, and M. P. Shaskolskaya
Electric Quadrupole Interactions of Octahedral Fe2+ Ions in Garnets.
L. M. Beliaev, I. S. Lyubutin, B. V. Mill', and V. A. Pavtatskii
Activation of Displacements in Relaxation of Electron Excitons in Solids.
V. M. Lenchenko
Influence of Diffusion on Resonance Scattering of Gamma Quanta
Crystal. M. A. Khasa and V. V. Khizhnyakov
Hyperfine Interaction of Pb50 in Calcite. R. M. Mineeva and L. V. Fersnov
Dependence of the Width of the Forbidden Band of Indium Antimonide Films on the Thickness. O. N. Filatov and I. A. Karpovich
Excitation of Charged Dislocations in LiF Crystals. L. B. Zuev, G. E. Turchinovich, and N. P. Gudimova
Subthreshold Parametric Mechanism of Losses in Dielectrics at Microwave Frequencies. O. G. Vendik, L. M. Platonova, and A. I. Sokolov
Substructures Produced in Crystals by Point Defects. V. M. Rosevitchev and A. A. Sokol
Changes in Quadrupole Coupling Constants of Na10 and A10 Nuclei in Porous Crystals. S. P. Gasanov, I. V. Grinenko, and V. N. Shechetkina
Optical Properties of Molybdenum in the Range of 2-10 eV Proton Energies.
M. I. Kapitsa, Yu. P. Udovenko, and E. I. Shirokikh
Local Elastic Stresses and Solubility of Impurities in Crystals with Stoichiometric Vacancies. V. M. Koshkin and L. V. Atroshchenko
Phase Diagram of the Ferro-Paraelectric Transition in Triglycine Sulfate at Pressures up to 23 kbars. N. P. Netesova and G. G. Leonidova
Cation Distribution in a Copper-Manganese Spinel. A. I. Zaasavady and V. P. Plakhil
Available From The American Institute of Physics
Vol 11, No 3, Sept 1969
Characteristic Features of the Electric Polarization of Ferroelectric Solid Solutions with the Perovskite-Type Structure at the Magnetoelectric Phase Boundary and Far from It. Yu. E. Stolygin and V. A. Ignat'ev .......................... (8) 574 823
Sequence of Magnetoelectric Pulses during Magnetic Excitation of Yttrium Iron Garnet. V. V. Lemanov, B. M. Lebed', and A. V. Fedorov .......................... (5) 577 825
Phenomenon of "Spontaneous" Diffusion Straightening of Birefringent Crystals. Yu. E. Georgiev and B. P. Matsekh .................... (T/F) 679 828
Magnetic Susceptibility of Niobium and Tantalum Monocarbides at Low Temperatures. A. S. Bornakhovich, I. S. Dubrovskaya, I. I. Potapenko, and P. V. G Feinstein .................................................. (E) 681 830
Anomalous Temperature Dependence of the Lifetime of the Metastable State of Ni** ions in Mixed Fluoride Crystals. V. A. Kaminskii and V. N. Shpakov ........................................ (E) 683 832
Thermal Diffusivity and Thermal Conductivity of Palladium at High Temperatures. V. F. Zinov'ev, R. P. Krent'ulev, and P. V. G#{309}kif .......................... (E) 685 834
Instability of a Plasma during Electrical Breakdown of Solid Dielectrics. Yu. N. Vorshchina ........................................ (T/F) 677 836
Umklapp Processes during Spontaneous Decay of Phonons. V. V. Lebed', ........................................ (T) 690 838
Limit of Absolute Stability of a Crystal and the Melting Curve. P. Bazarov ........................................ (T) 692 840
Investigation of Transverse Magnetoresistance of Thulium at High Temperatures. G. S. Nikol'skii and N. M. Zvyagina ............... (E) 694 842
Anomalous Absorption and Velocity Dispersion of Ultrasonic Waves in SbS Crystals. V. I. Samulionis and V. F. Kunigelis .................. (E) 696 844
Surface Diffusion of Gold Atoms on KCl Crystals. V. I. Trofimov, A. E. Chalykh, and V. M. Luk'yanovich ........................ (2) 698 846
Correction of the Paper "Propagation of Ultrasonic in a Semiconductor in the Presence of a High-Frequency Electric Field." E. M. Epstein .......................... (T) 700 848

ERRATA ................................. 701

Available From The American Institute of Physics
Vol 11, No 3, Sept 1969
SOVIET PLANT PHYSIOLOGY
A translation of Псекундная Физиология

Volume 16, Number 1
January-February, 1969

CONTENTS

The Tasks of Plant Physiology in the Intensification of Agriculture ........................................... 1 5
Copper Compounds in Plants - S. G. Yaferova, G. I. Savenko, and E. A. Bolshenko ................. 4 9
Effect of Potassium Deficiency on the Carbohydrate Content in the Cotton Plant
at Various Stages of Its Development - R. M. Pankey ......................................................... 9 13
The Effect of Sodium Sulfate and Sodium Chloride on the Protein Composition of Pet Roots - N. M. Ivanova, L. K. Knysh, and B. P. Strepetov ................................................. 17 22
The Content of Nitrogen and Mineral Elements in the Organoids of Sugar Beet
Leaf Cells in Relation to the Nutritional Conditions - A. D. Kharchenko
and A. T. Gvazdikovskaya ............................................................................................................ 24 29
Kinetics of the Action of Certain Cyclic Compounds on Potassium Accumulation
in Barley Shoots - D. B. Rakhrustev ............................................................................................ 29 34
Certain Qualitative Results of an Analysis of a Photoperiodism Model
- V. N. Moshkov, S. I. Pojmaynokova, and L. Ya. Fokharkovskii .................................................... 34 41
Dynamics of Soluble Carbohydrates in Mulberry Buds, Leaves, and Shoots
in Connection with Its Frost Resistance - Yu. B. Filippovich
and M. I. Strushkova ...................................................................................................................... 40 49
Effect of Frost on the Isoelectric Zone of Cell Proteins and the Acidity of Potato
Leaf Tissues - Z. F. Sycheva, S. N. Drenkov, V. A. Vasyukova,
and Z. A. Bystrava ......................................................................................................................... 45 55
Relation between Soil Moisture, Cell Sap Concentration, and Growth of Tea-Plant
Shoots - J. A. Filippov and P. M. Dushin ....................................................................................... 50 61
Influence of Weak Dehydration of the Properties of Amino Acid-Activating
Enzymes of Wheat Leaves - L. P. Khokhlova, V. Ya. Aleksseeva,
and A. S. Muraveva ................................................................................................................................. 54 66
The Fractions of Water in Wheat Seeds - S. I. Aksenov, N. A. Skochenskaya,
and N. S. Fedorov ........................................................................................................................................ 58 71
Photosynthesis in Mulberry Buds, Leaves, and Shoots
in Connection with Its Frost Resistance - Yu. B. Filippovich
and M. I. Strushkova ......................................................................................................................... 64 79
Changes in the Sensitivity of the Photochemical Activity of the Chloroplasts
to Treatment with Detergents - T. A. Reingard, S. V. Manulisnaya,
L. K. Ostrouskaya, and A. I. Polishechuk ....................................................................................... 73 80
Comparative Characterization of the Growth and Direction of Biosynthesis of Various
Species of Chlorophyll under Conditions of Nitrogen Starvation. II. Formation
of Carbohydrates and Lipids - T. S. Zhubova, G. I. Klyachko-Gurievich,
M. G. Vdovenkova, and T. A. Rumenova ..................................................................................... 79 96
Steady Variations in Absolute and Relative Amounts of Pigments in Conifers
in Natural Conditions with Relation to Air Temperature - T. N. Godnev, E. V. Khodasevich,
and A. I. Antonova ............................................................................................................................. 81 102

Available from Consultants Bureau

- 169 -
Transformation of Chlorophyll in Leaves Illuminated by Red Light 125 166
and L. A. Popova .................................. 165
Change of Activity and the Content of Proteolytic Enzymes of Plant
Mitochondria under the Effect of Various Physiologically Active Compounds
- S. M. Michailova, V. A. Volina, and V. P. Dzeka ............ 111 116
Pathways of Respiratory Oxidation of Glucose under Different Temperature Conditions
- D. S. Yurchuk, Z. Golub, and O. A. Semykhova ............. 93 129
Protein Complex and Activity of Oxidative Enzymes of Allium cepa L. Infected
by Peronospora Sch.- G. A. Dobryakova, A. A. Karakova, and V. P. Gavrilova ..... 104 124
Variation in the Content of Vitamins of the B Group in Relation to Sexualization
of Corn Plants - Kh. A. Maringa ........................................ 103 137

BRIEF COMMUNICATIONS
Suppression of Growth in Pumpkin Plants under the Influence of Sodium Chloride
- V. A. Sokolov .................................................. 111 136
On the Transformation of Chlorophyll in Plants - A. G. Ivanov .... 114 139
Acclimatization of Trees - V. I. Arashidi ......................... 116 140
Carbonic Anhydrase Activity in Plants - A. V. Strogalin and A. P. Shpakova 128 143
The Effect of Auxin on Ribonuclease Activity in Corn Colloplastic Segments
- G. I. Koval'skii and V. V. Polesov ................................. 122 145
Sexual Differences in the Free Amino Acid Composition of the Leaves
of Glycine Plants - L. I. Dzhaparidze and E. G. Mishadze ....... 124 147
Role of the Node in the Effect of Gibberellic on the Growth of the Base of the First
Leaf in Maize - M. A. Stroganov ........................................ 127 153
Ability of Aerial Organ of Legumes to Fix Atmospheric Molecular Nitrogen
- Yu. M. Loghotov ................................................. 129 152

METHODS
Determination of Leaf Water-Retention Capacity - V. D. Zelepukha 132 156
Isolation of Soluble-Protein Preparations from the Vegetative Organs of Plants
for Electrophoretic Investigation - V. I. Salovan and M. P. Safonova 136 151
Pocket Instrument for Obtaining Plant Sup under Field Conditions
- Ch. S. Khvatenskii and V. D. Ronova .......................... 141 160
Technique of Cultivating Chlorella in an Atmosphere of C2H4O2 of High Specific
Activity - V. L. Karpov, O. D. Rzhykov, and Yu. M. Sabelnikov 143 169

The Russian press date (podpisano k pechat) of this issue was 1/6/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available from Consultants Bureau
### CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio between the Rate of Electron Transport and the Rate of Evolution of Oxygen by Chloroplasts in the Hill Reaction - V. M. Katynin, M. V. Chubkov</td>
<td>149</td>
<td>151</td>
</tr>
<tr>
<td>Estimate of the Biological Activity of Extracts from Leaves of Plants Grown in Light of a Different Spectral Energy Distribution - S. S. Zaimkova</td>
<td>182</td>
<td>196</td>
</tr>
<tr>
<td>Comparative Characterization of the Growth and Direction of Biosynthesis of Various Strains of Chlorella under Nitrogen Deficiency Conditions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Synthesis of Fatty Acids - G. L. Klyuchko-Guryich, T. N. Zhukov.</td>
<td>158</td>
<td>265</td>
</tr>
<tr>
<td>Physiological Characteristics of Chlorella Sp. K at High Extremal Temperatures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Alteration in Biosynthesis, Ultrastructure, and Activity of Photosynthetic Apparatus in Chlorella upon Dissociation of Cell Functions by Extreme Temperature - V. E. Semenenko, M. G. Vladimirova, O. B. Orfanovskaya</td>
<td>172</td>
<td>219</td>
</tr>
<tr>
<td>N. I. Raikov, and E. S. Kovanova.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of Temperature on Swelling and Shrinkage of Isolated Mitochondria</td>
<td>182</td>
<td>221</td>
</tr>
<tr>
<td>I. N. Andreeva.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of Prolonged Frost of Woody Plants - O. A. Krasavtsev.</td>
<td>188</td>
<td>225</td>
</tr>
<tr>
<td>Effect of 2,4-Dinitrophenol of Frost-Resistance in the Ul'yanovka Variety of Winter Wheat - P. I. Trunova</td>
<td>189</td>
<td>217</td>
</tr>
<tr>
<td>Stages of Embryonic Development of the Apple Tree in Relation to Varietal Winter Resistance - V. M. Burdasova.</td>
<td>198</td>
<td>241</td>
</tr>
<tr>
<td>On the Relation of Root System Formation in Sunflower to the Presence of Nutrients in the Soil and to Photosynthetic Activity - V. F. Doroshenko</td>
<td>213</td>
<td>250</td>
</tr>
<tr>
<td>Effect of Temperature on Swelling and Shrinkage of Isolated Mitochondria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. N. Andreeva.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Action of Adenine and Factors Blocking the Protein Component of Cellular Membranes on the Accumulation of Potassium by Barley Seedlings</td>
<td>214</td>
<td>261</td>
</tr>
<tr>
<td>- D. B. Vakhmistrov.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resting Potential of the Root Hair of Trianea bogotensis - O. O. Lyulin and N. N. Kitorova</td>
<td>222</td>
<td>272</td>
</tr>
<tr>
<td>Spontaneous Ultraweak Chemiluminescence of Plants in Relation to a Change of Their Biological Activity in a Permanent-Magnetic Field</td>
<td>222</td>
<td>272</td>
</tr>
<tr>
<td>Physiological Role of Cotyledons in Ontogenesis of Certain Dicotyledons</td>
<td>277</td>
<td>279</td>
</tr>
<tr>
<td>Delay of the Yellowing of Barley Leaves on the Plant by Phytohormone Treatment</td>
<td>234</td>
<td>288</td>
</tr>
<tr>
<td>Effect of Retardant CCC on Growth and Morphogenesis of Fruit Tree Saplings</td>
<td>235</td>
<td>283</td>
</tr>
<tr>
<td>- T. V. Nekrasova.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Available from Consultants Bureau - 171 -
Effect of Vinclozolon on Certain Optical Properties of Photosynthesis
W. M. Gol'd
245 7.05

Cis- and Trans-Isomers of Fumaric Acid in the Germination of Corn Seeds
S. I. Pushkar', and F. I. Zemenk
238 306

Study of Experimental Rf-Extracts of Pea and Wheat Seedlings
T. N. Zverevina and Yu. V. Bulan
243 313

Localization of α-Glucosidase in the Cells of Higher Plants - D. L. Chamberlin,
G. A. Partenov, A. M. Shamonova, and P. P. Konstantinov
261 322

Variability in Fructose Acid Content in Varietal and Hybrid Populations of Indian
Meadow-s. N. Kharkevich
265 326

Changes in Plant 25-Metabolism of Spring Wheat Infected with Stem Rust
V. V. Chigrin and L. V. Bacum
269 329

SHORT COMMUNICATIONS
De Nova Formation of Sulfate in Plants in the Presence of Na2SO4 - N. I. Shemyakina
and M. N. Popova
274 336

Division and Extension Rate of Seedling Rootlet Cells under Saline Conditions
A. F. Gladunskaya
277 338

Transpiration Resistance Coefficients for Tubers of Some Pomological Potato
Varieties - L. V. Mayzunova and V. Z. Zhukov
292 341

Correlation between Glycolic Acid Oxidase and the Chlorophyll Content in Barley
Leaves - L. Peshel and G. L. Farkas
283 343

Metabolism of 2,3-CH-Succinate Acid Introduced into Corn Leaves
A. K. Zerlyanakhin and A. M. Malchev
285 346

Investigation of the Effect of CCC on the Metabolism and Quality of Wheat Grains
V. P. Krishchenko and A. P. Dmitruk
233 347

METHODS
Analysis of Plant Proteins by Vertical Micro-electrophoresis in Polyacrylamide Gel
V. I. Smirnova and M. P. Safonova
231 359

Method of Studying Root Exudates and of Calculating Their Amounts - A. V. Manorev
and N. I. Belina
235 355

BOOK REVIEWS
S. I. Lebedev. Plant Physiology - Reviewed by O. I. Sannikova
303 365

CHRONICLES
The Third Conference of Plant Physiologists and Biochemists of Siberia and the Far
East - E. E. Khavkin
306 367

The Quadlingburg International Symposium on Biophysics of Plant Systems
M. G. Grodzinskii
329 370

Nadezhda Grigor'evna Vas'ileva (1906-1995) - V. Zhokovskih
317 373

The Russian press date (godopisano k pechati) of this issue was 3/7/69.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>V. G. Selishchev and V. P. Vagovoy: Method of Points in Aerial Photography</td>
</tr>
<tr>
<td>19</td>
<td>M. I. Aleksandrov: Method of Points in Aerial Photography</td>
</tr>
<tr>
<td>21</td>
<td>O. S. Ivanova: Characteristics of Terrain Systems</td>
</tr>
<tr>
<td>23</td>
<td>N. A. Dema: Accuracy of Measurements of Terrain Information</td>
</tr>
<tr>
<td>27</td>
<td>A. A. Astakhov: Analysis of Approximate Weights</td>
</tr>
<tr>
<td>28</td>
<td>A. V. Kalinin: Selection of Terrain Photography for the Transverse Range Finder Retrieval</td>
</tr>
<tr>
<td>31</td>
<td>G. I. Kuznetsov: Selective Systematic Errors in Determining Distances of Points from a Line</td>
</tr>
<tr>
<td>35</td>
<td>O. S. Malisheva: Effects of Vertical Refraction on the Propagation of Gas Laser Rays</td>
</tr>
<tr>
<td>44</td>
<td>E. P. Noskov: Analysis of Results of Parallel-Light Range Finder Measurements</td>
</tr>
<tr>
<td>64</td>
<td>I. M. Skubas: Evaluating Measurement Accuracy by Closing Errors of Figure Curvatures</td>
</tr>
<tr>
<td>69</td>
<td>A. G. Prkoda and E. E. Mikolov: Barometric Leveling in Mountainous Regions</td>
</tr>
<tr>
<td>75</td>
<td>I. S. Rastievich: Observations of Settling of the Krasnogorsk Hydroelectric Power Station Dam</td>
</tr>
<tr>
<td>104</td>
<td>Yu. B. Khvlova: A Study of Relief Representation Accuracy in the Stereoscopic Survey Method</td>
</tr>
<tr>
<td>105</td>
<td>A. P. Vyzovitch: Effect of a Connecting Line on the Readings of a Strip Instrument Measuring Vertical Speed During an Airborne Geodimeter Survey</td>
</tr>
<tr>
<td>57</td>
<td>B. A. Baranov: Effect of Astronomical Refraction in the Tsinger Method</td>
</tr>
<tr>
<td>97</td>
<td>D. A. Belyaev: Determining the Centre of Photographs from the Aperture Horizon</td>
</tr>
<tr>
<td>102</td>
<td>V. I. Pavlov: Analysis of the Accuracies of Exterior Orientation of a Vertical Photogrammetric Network</td>
</tr>
<tr>
<td>107</td>
<td>M. V. Ostrovsky: Use of Terrain Information in the Orthorecognition of Photographs</td>
</tr>
<tr>
<td>116</td>
<td>M. P. Bordelkov: Accuracy in Transforming Cartographic Projections</td>
</tr>
<tr>
<td>119</td>
<td>M. D. Mal'tsev: Computations of Tolerances for Test Glasses and for Seat E under a Test Glass</td>
</tr>
<tr>
<td>125</td>
<td>G. A. Mazurov: Designing a Thin Three-Element Objective with Two Cemented Lenses</td>
</tr>
<tr>
<td>131</td>
<td>V. V. Stukalov: Experiment in Rough Polishing Optical Quartz Glass with a Segmented Diamond Shaping Tool</td>
</tr>
<tr>
<td>135</td>
<td>V. V. Akopyan: Review of the Status of Radar Aerial Surveys Abroad</td>
</tr>
<tr>
<td>142</td>
<td>P. N. Kuznetsov: A Textbook on Geodesy for Geodetic Institutes</td>
</tr>
<tr>
<td>151</td>
<td>M. P. Donchev: Use of Terrain Information in the Orthorecognition of Photographs</td>
</tr>
<tr>
<td>151</td>
<td>V. G. Selishchev: Method of Points in Aerial Photography</td>
</tr>
</tbody>
</table>

Available From The American Geophysical Union
IZVESTIYA AKADEMIYE NAUK SSSR, ATMOSFEERY I OKEANOLOGICHESKIY
Vol 5, No 3, 1969

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>On an Algorithm for the Numerical Solution of the Balance Equation</td>
<td>R. M. BURKHARDT</td>
<td>131</td>
</tr>
<tr>
<td>Spectral Characteristics of Turbulence in a Thermally Stratified Atmosphere</td>
<td>Y. L. GINIA</td>
<td>137</td>
</tr>
<tr>
<td>Equipment for Measuring the Brightness of the Earth from the &quot;Cosmos 149&quot; Satellite</td>
<td>O. A. VOLKOV, L. S. LAKHTINOV</td>
<td>145</td>
</tr>
<tr>
<td>A Contribution to the Theory of Equatorial Drift Currents</td>
<td>I. M. KIVELYCH</td>
<td>145</td>
</tr>
<tr>
<td>The Use of Dynamic Equations in the Probability Prediction of the Pressure Field</td>
<td>V. L. FATENKOVA</td>
<td>152</td>
</tr>
<tr>
<td>The Absorption Band Around ( \lambda = 0.43 ) in the Solar Spectrum of Scattered Celestial Radiation</td>
<td>R. A. GLEBUSHNIKOV</td>
<td>165</td>
</tr>
<tr>
<td>Absolute Photometry of Artificial Earth Satellites in the Ultraviolet Region of the Spectrum</td>
<td>S. F. BOGDANOV, I. IH, SHKLOV, AND O. I. KUBITSYK</td>
<td>166</td>
</tr>
<tr>
<td>Trapping Coefficients of Cloud Particles Determined by a Model Experiment</td>
<td>V. G. KHORZANSKAYA</td>
<td>169</td>
</tr>
<tr>
<td>&quot;Leakage&quot; Associated with Sound Propagation in the Ocean</td>
<td>E. V. ZHUKOWSKAYA</td>
<td>170</td>
</tr>
</tbody>
</table>

Chronicle

- Thirteenth Conference on Radar-Meteorology and International Conference on Cloud Physics
- International Symposium on Radiation, Including Satellite Techniques (22-28 August 1968, Bergen, Norway)

Personalia

- The Eightieth Birthday of Grodon Miller Bourne 

Available From The American Geophysical Union
IZVESTIYA AKADEMIYA NAUK SSSR, ATMOSFERY I OKEANOLOGIChESKIY
Vol 5, No 4, 1969

Sho't Cn,ite
Ye. R. Cherenkov, The Asymptote for Eigenfunctions of Laplace's Total Operator .......................... 223 224
G. V. Rosenberg, The Horizontal Observation Range in Polarized Light ........................................ 229 230
B. S. Nefedov, A. G. Pokrovskiy and V. Ya. Gmel, Background of Absorption by Water Vapor Near 11 cm-1 .......................................................... 231 232

Short Communications

Available From The American Geophysical Union

- 176 -
<table>
<thead>
<tr>
<th>Page</th>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>209</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>215</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>274</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>158</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>386</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>238</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>245</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>249</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>254</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>269</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>252</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>253</td>
<td>194</td>
<td></td>
</tr>
</tbody>
</table>

**SCIENTIFIC COMMUNICATIONS**

A. M. SEMYENOV, Variations in the Travel-Time of Transverse and Longitudinal Waves Before Violent Earthquakes ........................................... 245 72

L. A. SKORIK, Spectra of Induced Seismic Accelerations in Perceptible Earthquakes ........................................... 249 78

A. G. AVERYANOV, A Seismic Model of a Layered Medium with a Block ........................................... 254 86

F. M. GOLTSMAN (HOLZMANN), A. A. KOVTUN AND L. N. POROKHNOVA, Problems of the Machine Interpretation of Magnetotelluric Sounding Curves ........................................... 269 86

M. A. PEVZNER, The Origin of Chemical Magnetization in Andesite-Basalt Lava ........................................... 252 190

Laboratory Conditions ........................................... 253 194

O. F. PUTIKOV, Concentration Distributions in Hydrochemical Halos ........................................... 253 194

Available From The American Geophysical Union
Transactions of the Sixteenth Conference on Luminescence (Molecular Luminescence) (Leningrad, 11-15 December 1967)

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of luminescence characteristics of complex molecules suitable for laser-light generation</td>
<td>1882</td>
</tr>
<tr>
<td>Nonradiative transfer of electronic excitation energy in resonance exchange interactions</td>
<td>1287</td>
</tr>
<tr>
<td>Effect of exciting-light intensity on the interaction of triple excitons with impurity molecules in benzophenone crystals</td>
<td>1254</td>
</tr>
<tr>
<td>Effect of intense light on the shapes of absorption and emission lines</td>
<td>1269</td>
</tr>
<tr>
<td>Fluorescence quantum yield of rarefied vapors following excitation to different electronic states</td>
<td>1305</td>
</tr>
<tr>
<td>Two-photon absorption in molecular crystals</td>
<td>1310</td>
</tr>
<tr>
<td>Migration of energy between dye molecules adsorbed on a regular polymer</td>
<td>1317</td>
</tr>
<tr>
<td>Excitation yields and subsequent reactions of ketones in the chemiluminescence of solutions of organic compounds</td>
<td>1325</td>
</tr>
<tr>
<td>Delayed luminescence of anthraquinone and benzophenone vapors</td>
<td>1332</td>
</tr>
<tr>
<td>Spectroscopic study of the nature of the association of dye molecules</td>
<td>1337</td>
</tr>
<tr>
<td>Spectroscopic study of association of dye molecules in mixtures of polar and nonpolar solvents</td>
<td>1340</td>
</tr>
<tr>
<td>Temperature dependence of excitation-energy transfer and luminescence characteristics of trace components in mixed molecular crystals</td>
<td>1346</td>
</tr>
<tr>
<td>Investigation of excitation energy transfer in molecular crystals using the electron bombardment method</td>
<td>1353</td>
</tr>
<tr>
<td>Relaxation effects in the luminescence characteristics of viscous solutions</td>
<td>1365</td>
</tr>
<tr>
<td>On the mechanism of scintillations in organic substances-II</td>
<td>1366</td>
</tr>
<tr>
<td>Quenching of anthracene fluorescence by carbon tetrachloride</td>
<td>1373</td>
</tr>
<tr>
<td>Dependence on the exciting-light frequency of the luminescence quantum yield of NO₃ impurity molecules in alkali halide crystals</td>
<td>1278</td>
</tr>
<tr>
<td>Luminescence of 9,10-dichloroanthracene single crystals</td>
<td>1285</td>
</tr>
<tr>
<td>Local excited states in benzene crystals containing thiophene, furan and pyrrole</td>
<td>1380</td>
</tr>
</tbody>
</table>

Available from: The Columbia Technical Translations
Trends in the luminescence spectra of heavy-metal halide solutions at hydrogen and helium temperatures - V.G. Avramenko & M.U. Belyi 1291 1299
Luminescence characteristics of anionic centers in halide solutions - I.Ya. Kushnirenko 1410 1305
Effects of halogen substituents on the position and nature of low-lying electronic levels in some quinones - N.A. Stuchuglova & L.Sh. Tushishvili 1414 1309
Quenching of fluorescence of anthracene derivatives and formation of mixed excimers - A.S. Cherkasov & I.E. Chyv'yovenkova 1419 1315
On the interaction of uranyl with organic compounds and analytical applications - A.V. Karyakin, L.I. Antikin, T.I. Cherkov & N.M. Kuznetsova 1425 1322
Sensitization and quenching of luminescence of two-component polycrystalline powders of rare earth complexes - A.N. Sovchenko, V.V. Kuznetsova & V.S. Khomenko 1436 1330
Mechanism of sensitized photolysis of some triphenylmethyl derivatives in the solid state - M.A. Pak, D.N. Shigorin & O.A. Ozerova 1442 1435

Available From The Columbia Technical Translation.

Translated in 1969 by Columbia Technical Translations
5 Vermont Ave., White Plains, N.Y. 10606
Transactions of the Sixteenth Conference on Luminescence
(Molecular Luminescence)
(Leningrad, 11-15 December 1957)

On the conversion of excited molecules to the triplet state -
G.P.Gurinovich, E.K.Kruglik & A.I.Patsko

1450

Peculiarities of laser-light generation in organic-dye solutions -
A.N.Rubinov & V.A.Mostovnikov

1454

Luminescence characteristics of associations of organic phosphors
with active additives in three-component solutions -
N.I.Aristov & E.N.Viktorova

1460

Luminescence and stimulated emission from organic molecules excited
with an ultraviolet laser - V.D.Kotsubanov, L.A.Nabokin, V.V.

1466

Investigation of the nature of the luminescence centers in frozen
paraffin solutions - L.A.Klimova, G.N.Nersesova, T.M.Naumova,
A.I.Ogloblina & V.I.Gladkovskii

1471

Concentration effects in sharp-line phosphorescence and triplet
triplet absorption spectra and phosphorescence decay time -
T.N.Bolotnikova, T.Naumova & L.K.Artemova

1478

Temperature dependence of some characteristics of the sharp-line
spectra of aromatic hydrocarbons in n-alkanes - R.I.
Personov & V.V.Solodunov

1480

Luminescence of gyrotropic uranyl-compound crystals - V.I.Burkov,
V.A.Kizel & Yu.I.Krasilov

1484

Solvent-sensitized phosphorescence - M.V.Alfimov, I.G.Batchka &
Yu.B.Shekht

1488

Combining states in vibronic transitions - V.A.Teikachev

1492

Spectral dependence of the fluorescence lifetime for complex
molecules in the vapor phase - L.G.Pikulik, V.A.Yakovlev &
M.Ya.Kostko

1496

Luminescence and EPR of concentrated solutions of xanthene dyes -
Yu.V.Glazkov, N.I.Zotov & E.K.Kruglik

1500

Mechanism of nonradiative energy transfer to rare-earth ions in
liquid solutions - B.M.Antipenko & V.L.Formalby

1504

Splitting of the phosphorescence spectra of frozen solutions of
monohalomaphthalenes into sequences with different lifetimes -
Kh.I.Mamedov & I.K.Nasibov

1528

Relation of the luminescence characteristics of chlorophyll-a

1538

On the polarized fluorescence of anthracene derivatives - A.M.
Sarzhievskii & M.I.Khomich

1542

Concerning the nature of the Shpol'skii effect - L.A.Nakhimovskaya

1552

On the discrete fluorescence spectrum of anthracene vapor -
V.P.Kirchov

1556

Available From The Columbia Technical Translations

- 180 -
Luminescence study of the reversible proton-transfer photo-reaction in solid solutions of amino-acridines - A.V. Shablya & S.I. Lashkov

Effect of concentration on the luminescence of toluene solutions of fluorochrome - L.T. Kantardzhyan, S.S. Chirkina & E.B. Chayan

Temperature dependence of the fluorescence spectra and quantum yields for complexes of benzanthracene hydrocarbons with some aromatic amines - I.L. Edilashvili & A.S. Cherkasov

Influence of freezing rate and concentration on the luminescence and absorption spectra of paraffin solutions of some organic compounds - G.V. Gobov, L.A. Yakshinovskaya, N.S. Frozkyryukova, V.S. Tarnovtsev & L.N. Chernoguba


Luminescence and absorption spectra of some uranyl complexes with organic ligands - I.M. Kopasheva, A.N. Sevcenko & D.S. Bareiko

Vibrionic transitions in the luminescence spectra of europium chelates - M.I. Galuk, V.F. Zolin, V.A. Kadyshova & V.I. Tsaryuk

Nature of the absorption and luminescence bands of dyes - V.I. Permogorov, L.A. Serdyukova & M.D. Frank-Kamenetski

On the triplet state in photochromatic spiropranes - T.A. Shakhverdov

Luminescence and photochromatic properties of indoline series spiropranes - G.I. Lashkov & A.V. Shablya

Electron excitation energy dissipation processes in benzene and benzene substituted molecules in the liquid phase - V.M. Berenfeld & V.A. Krongaus

Investigation of luminescence and energy migration in vitreous solutions of rare earths - Yu.V. Denisov, B.F. Dzhurnski & V.A. Kizel

Effect of pH on the luminescence characteristics of aromatic amino acids and proteins - L.F. Gladchenko, M.Y. Krasco & L.G. Pikulik

Effect of deuteration of the solvent on the sensitized luminescence of rare earth ions - A.V. Aristov & D.A. Kozlovskii

Vibrational symmetry and selection rules in the luminescence spectra of aromatic compounds - V.I. Mikhailenko & I.A. Teplyuk

On the sensitization of the luminescence of Eu$^{3+}$ ions in phosphoric acid - L.S. Galgorova, M.I. Galuk, V.F. Zolin & M.A. Samokhina

Utilization of resonance migration of energy between dye molecules to detect defects in polymer structure - G.V. Gorskii, A.S. Zasedatelev, O.F. Borisova, E.S. Minyat & V.G. Tumanyan

Available From The Columbia Technical Translations

Translated in 1969 by
Columbia Technical Translations
5 Vermont Ave., White Plains, N.Y. 10606
The Theory of Radiative Transfer in an Inhomogeneous Medium
V. V. Zheleznyakov ........................................ 613

Kinetic Theory of a Stratified Plasma Turbulence in a Strong
Magnetic Field. A. N. Kontratyevek ......................... 616

The Width of the Water Vapor Absorption Line A = 0.92 mm.
V. Ya. Ryadov and N. I. Furashov ........................ 619

Measurement of the Atmospheric Absorption of Radio Waves
in the Range 1.36-1.60 mm. Yu. A. D'yakonin, A. G. Kizner .... 620
L. M. Kukin, A. I. Naumov, and L. I. Fedoseev .............. 624

Effect of the Motion of a Cosmic Source on the Frequency
Spectra for Amplitude and Phase Fluctuations in a
Turbulent Atmosphere. G. I. Skryomik ...................... 626

Back-Scattering of Centimeter Waves at Small Glancing Angles
by a Rough Sea Surface. A. I. Krasnov, I. E. Ostrovsky, 625
A. D. Rozenberg, and I. M. Fuku .............. 628

Fluctuations in the Angle of Arrival of Linear Waves from an
Extended Source in a Turbulent Atmosphere.
M. A. Kallistratova and A. I. Konev ........................ 633

Propagation of Electromagnetic Waves in a Tyromagnetic Medium
in the Geometrical Optics Approximation. Yu. Ya. Yashin .. 634

Second Harmonic Light Generation in a Nonlinear Medium
With Random Nonuniformities. V. D. Belyakov ............. 637

The Influence of Certain Statistical Factors on the Scattering
Characteristics of a Finite Cylinder. V. V. Tymalik ........ 640

Some Applications of the Generalized Cazimir-Walton Theorem
to the Calculation of Maser Noise Characteristics.
V. B. Tzaregadzski ........................................... 644

Molecular Emission in a High-Density Resonance Medium,
V. M. G enkin and V. N. Genkin .......................... 647

Radiation of Electromagnetic Waves by an Infinite Packet of
Impedance Half-Planes. V. V. Markel .... 650

(Continued)
Contents (cont'd)

Charge Radiation in a Convectively Unstable Medium, Yu. V. Ushugumov......................... 1251 665
Quadratic Relationships in the Electrodynamics of Moving Media, I. A. Dev'yan and V. I. Votmintsov .................................................. 1256 665
Combination Processes in Distributed Traveling Wave Systems, G. L. Gurevich and Yu. A. Utmanov .................................................. 1264 674
Transverse Bundling in Klystrons With Wide Electron Beams, A. A. Shaposhnikov .......... 1275 679
A Radiophysical Method of Measuring Small Mechanical Vibrations, V. B. Braginaski and A. B. Manakin .................................................. 1296 685
Optimal Methods of Piecewise Linear Approximation, Yu. L. Kekkov .............. 1292 692
Behaviour in the Large of the Phase Trajectories of Quasilinear Differential Equations With Delayed Arguments, Yu. I. Neimark and L. Z. Fishman .................. 1270 696
The Method of Point Transformations for Studying Nonlinear Impulsive System Dynamics, A. S. Alekseev .................................................. 1317 700
The Control Region and Correct Statement of an Optimall Problem, I. F. Ly'tskev .................. 1222 703
Brief Communications and Letters to the Editor:
Parametric Conversion of the Spectrum of Video Pulses in a Key Line, B. A. Solomin 1227 706
Averaged Equation of Motion of a Charged Particle in a Stationary Random Electromagnetic Field, A. G. Latyak .................................................. 1229 708
Classical Examination of Induced Radiation of Electrons in Crossed Fields, Yu. C. Pavlenko and D. V. Gafarov .................................................. 1232 710
Synchronization of an Autodyne With Automatic Amplitude Control, R. Krestskas and V. Lesauskas .................................................. 1234 712

Author Index

Available from Faraday Press
Soviet Physics

CRYSTALLOGRAPHY

A Translation of "Kristallografii"

(Russian Original Vol. 13, No. 6, pp. 933-1020, April-June 1969)

Vol. 13, No. 6, pp. 933-1020

May-June, 1969

CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planar Point Groups with Color Symmetry and Different Classes of Asymmetry</td>
<td>60</td>
</tr>
<tr>
<td>A. K. Palissant, et al.</td>
<td></td>
</tr>
<tr>
<td>Dynamic Diffraction of Fast Electrons in an Ideal Vibrating Crystal</td>
<td>87</td>
</tr>
<tr>
<td>E. N. Chakhovski, et al.</td>
<td></td>
</tr>
<tr>
<td>Corellites (Oklandite, Chabazite, Acanthite, Synchysite, Bernite, Falunite)</td>
<td>123</td>
</tr>
<tr>
<td>N. V. Belov, and P. A. Poleshchuk</td>
<td></td>
</tr>
<tr>
<td>The Crystal Structure of Synthetic Na 2 Zn Germanate, Na 2 ZnGeO 4</td>
<td>836</td>
</tr>
<tr>
<td>E. A. Kuz'man, V. V. Ryshkin, and N. V. Belov</td>
<td></td>
</tr>
<tr>
<td>The Structure of Color Lithium Tungstate, S. V. Borisev, R. E. Klevasova, and N. V. Belov</td>
<td>852</td>
</tr>
<tr>
<td>Molecular and Crystal Structure of Benzoquinone, M. L. Lobasova</td>
<td>856</td>
</tr>
<tr>
<td>X-Ray Investigation of New Perovskites Formed at High Pressures</td>
<td>858</td>
</tr>
<tr>
<td>The Crystal Structure of the Compound Na 2 CuSi 2, Y. P. Yarmoluk, and P. I. Kripkelevich</td>
<td>866</td>
</tr>
<tr>
<td>The Structure of Sodium Nickelate with the Composition Na 2 Ni 2 Cl</td>
<td>867</td>
</tr>
<tr>
<td>P. N. Ritsvet's and V. I. Khitrov</td>
<td></td>
</tr>
<tr>
<td>Nuclear Magnetic Resonance Spectra of 19 F nuclei and Hindered Motion in</td>
<td>871</td>
</tr>
<tr>
<td>Alkali-Phosphate and Structures, T. P. Aleksandrov, L. M. Kubalev, V. V. Ryshkin, and E. S. Aleksandrov</td>
<td>877</td>
</tr>
<tr>
<td>Optics of Cholesteric Liquid Crystals when the Magnetostrictive Effect is Taken into Account, B. N. Ledenev</td>
<td>878</td>
</tr>
</tbody>
</table>

Available From The American Institute of Physics
Vol 13, No 6, May-June 1969
KRYSTALLOGRAFIYA
Vol. 13, No 6, Nov-Dec 1968

The Development of Defects in Quartz by the Methods of Etching and Investigation with Silver in an Electric Field, E. V. Tsiangorev and O. B. Vol'shina
Mathematical Simulation of Radiation Damage in Crystals with Hexagonal and Hexagonal Lattices, V. L. Klimenkov, V. V. Krasovskii, and Z. Ya. Osipova
F- and M-Center Radiation Growth Kinetics in Needle-Like NaCl Crystals of Various Origin, S. V. Golitsin and I. Ya. Mel'chikova

BRIEF COMMUNICATIONS

Use of the Karle-Hauptman Method to Determine Structure Factor Signs by Computer, N. P. Zhukov and A. G. Senyukov
Crystal Structure of Cesium Fluoroborolunate, Cs$_2$BoF$_3$, D. Yu. Pushcharevskii
Advan Guriev, E. A. Pobedimskaya, and N. V. Belov
The Crystal Structure of Magnesium Tungstate, MgWO$_4$, O. S. Filippov, E. A. Pobedimskaya, V. I. Ponomarev, and N. V. Belov
The Crystal Structure of the Alpha Modification of Diazaoaminophenol, V. F. Gladkova and Yu. D. Kondrashov
An X-Ray Diffraction Study of KBr-TBr Solid Solutions, A. A. Khas
A Study of the 12-3 Type of Ordering in Lithium Ferrite, I. I. Visshevs'ski
B. G. Apolin, S. V. Lysak, and V. N. Skripal
The Systematics of Perovskites, H. E. G. Fesenko, V. S. Filip'ev,
and A. M. Matyushin
The Question of the Composition and Properties of Portlandite in Hydrated Portland Cements, C. B. Kopil'skii, Yu. M. Butt, and V. M. Vol'fong
Pyroelectric Properties of Triphenylene Selenide Crystals, N. D. Gavrilova, V. K. Novik, and V. A. Kapitsa
The Electrical Conductivity of Elongated Crystals of NaCl, E. Hartmann
Some Kishchik Line Anomalies and Their Relation to Structure Defects in Semiconducting Crystals, M. A. Gurevich, L. A. Zhukov, T. A. Borisova, L. V. Frolova, I. P. Allahverdina, and Yu. V. Vashlov
Phase Transition of Aluminum Hydroxide Induced by Electric Field, M. A. Cheremukh, N. G. Sirotenko, and N. E. Markova
Kinetics of Epitaxial Crystallization under Rapid Cooling of the Melt, L. N. Aleksandrov, E. A. Klimenko, and A. G. Klimenko
and K. I. Krasnoyants
Crystal Growth of Yttrium Orthosilicate by the Verneuil Method, V. I. Popov
Rus. S. P. Antonov, I. V. Gorina, and M. V. Mitroshin
Features of the Growth of Yttrium Silicate Crystals from Solution, L. M. Belov
Z. I. Prokhorova, and T. Ya. Khmelev

Available From The American Institute of Physics
Vol 13, No 6, May-June 1969
- 185 -

(Contd)
Intake of Iron in Hydrothermal Zucite Crystals, M. M. Lokma

and L. A. Chernyayev. ................................................................. (A) 979 1113

Orienting Single Crystals of AlPbM Compounds by an Optical Reflection Method.

J. Kvašil and V. Stefr. ................................................................. (G) 981 1114

X-Ray Camera Suitable for Studying Flowing Liquid Crystal Samples.

S. K. Sukharev and I. G. Chistyakov. .............................................. (E) 983 1116

The Demonstration of Various Symmetry Operations. B. S. Severin,

M. M. Botoshanski, B. A. Nesterov, and A. I. Kirillov ....................... (E) 985 1118

AUTHOR INDEX ................................................................. 987

SUBJECT INDEX ................................................................. 1909

Available From The American Institute of Physics

Vol 13, No 6, May-June 1968
B. Mravunac
Should Large-Scale Vaccination Against Measles Be Adopted? 1

M. Mikulić and I. Simunović
Biochemical Diagnosis of Thyroid Nodercogenesis 9

D. Milanović, J. Sokolić and J. Jablanov
Mediastinal Teratomas 18

I. Petrićević, Z. Kuščič, S. Švadić and J. Poljajević
Hepatitis Due to Erythromycin 28

I. Žunić and Dj. Vranešić
Carbon Tetrachloride Poisoning 37

I. Lutenberger and D. Gligoš
Evaluation of the Degree of Eye Injury 42

M. Premužić Lampić
Further Uses of Sayk's Sedimentation Chamber 47

I. Vodopija
Large-Scale Vaccination Against Measles Should Begin as Soon as Possible 52

D. Bubanj and F. Custović
Iatrogenic Heart Disease 56

Available From CFSTI Ti 65-50051/11
TABLE OF CONTENTS

The Celebration of the 50th Anniversary of the Zagreb School of Medicine .............................. 1

S. Boschi and J. Milutinović:
Urography with Increased Amount of Contrast Medium .................. 43

J. Fratzzot and Z. Stropnik:
Contribution to the Etiology of Nonspecific Urethritis .............. 52

J. Zergollern and P. Kerov:
A Review of the Surgical Treatment of Hip Arthrosis ................. 72

L. Sverka:
Recent Myocardial Infarction in the Infarct ................. 72

Panel Discussion
Complications and Mistakes in Treatment of Burns .................. 78

K. Gorwitz:
Maryland Psychiatric Case Register — A Unusual Research Project 92

B. Subic:
Statistics in Psychiatry and the Recorded Psychotic Patients in the Territory of the Socialist Republic of Croatia ........... 102

Available From CFSTI TT 68-50051/12
Following are translations of selected articles from the Russian-language periodical Meteorologiya i Gidrologiya (English version above), No 8, Moscow, Hydrometeorological Publishing House, August 1969, pages 1-128. Author's name and original source page accompany each article.

### CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtaining Standard Data on the Wind Conditions in the Upper Atmosphere by the Method of Radar Tracking of Meteor Trails (M. A. Petrosyants, et al)</td>
<td>3-1</td>
</tr>
<tr>
<td>The Possibility of Determining the Vertical Water Vapor Distribution by Measuring the Microwave Radiation of the Earth-Atmosphere System (Ye. P. Dombkovskaya)</td>
<td>6-7</td>
</tr>
<tr>
<td>Spectral Form of the Equations of Dynamics of the Atmosphere for a System of Generalized Spherical Functions (V. A. Yefimov)</td>
<td>15-17</td>
</tr>
<tr>
<td>Construction of the Correlation Matrix of the Wind Field for a Spherical Earth (A. L. Chubukova)</td>
<td>24-30</td>
</tr>
</tbody>
</table>

Available From JPRS 48963
Grid Selection for Numerical Integration of the Spherical Equations of the Dynamics of the Atmosphere and the Ocean (V. G. Turtikov) ........................................... 38 42

Space-Time Statistical Characteristics and the Method of Optimal Interpolation of the Maximum Wind Velocity (Kieh Tchi Chi, et al.) .................................................. 42 50

Average and Extremal Values of the Direct Solar Radiation Flux Density in the Atmosphere (Ya. A. Glagolev, et al.) ........................................................... 54 60

Regulation of Precipitation from Ferrous Clouds (M. V. Buykov) .................................................. 60 70

Agrometeorological Quality Indexes of the Spring Wheat Harvest (V. A. Yaroshevskiy et al.) ........................................................... 67 70

The Relation Between the Minimum Runoff of the Transbaikal Rivers and the Mean Elevation of the Catchment Basin (Z. I. Petersen) ........................................................... 8

A Study of the Effect of Physical and Geographical Factors on the Characteristics of River Runoff (V. G. Andreyanov) .................................................. 79 93

Measuring the Variations in Sea Level by Instruments using a Tide Cage Well with a Connecting Tube as a Filter (A. L. Bondarenko) ........................................................... 85 91

The Problem of Using Satellite Ice Information (Yu. N. Sinyurin) .................................................. 94 111 (Contd)

Available From JPRS 48963
<table>
<thead>
<tr>
<th>Source Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page</td>
</tr>
<tr>
<td>The Albedo of Some Materials and Coatings</td>
</tr>
<tr>
<td>(M. B. Fridzon, et al.)</td>
</tr>
<tr>
<td>100 116</td>
</tr>
<tr>
<td>112 125</td>
</tr>
<tr>
<td>114 132</td>
</tr>
<tr>
<td>At the Main Administration of the Hydrometeorological Service (V. N. Zakharov)</td>
</tr>
<tr>
<td>118 135</td>
</tr>
<tr>
<td>At the Institutions of the Hydrometeorological Service (K. P. Vasil'yev, et al)</td>
</tr>
<tr>
<td>118 136</td>
</tr>
<tr>
<td>Conferences, Meetings and Seminars (I. M. Shenderovich, et al)</td>
</tr>
<tr>
<td>120 140</td>
</tr>
</tbody>
</table>

Available From JPRS 48963
NUKLEONIKA
Vol 15, No 2, 1968

A. M. Petrossants—Some Problems of Atomic Power Engineering in Our Days...

PHYSICS
S. Chwastaczewski, A. F. Mikulski, K. Jablonski—Relation Between the Stable Reactor Period and Prompt Neutron Time Constant in the ANS Reactor...
S. Chwastaczewski, A. F. Mikulski, K. Dybowsky—Measurements of Neutron Diffusion Parameters in the ANS Reactor Graphite...
M. Zielczynski, M. M. Komochlow, H. S. Szczep, A. P. Cherevkinowski—Measurement of the Quality Factor for High-Energy Protons in a Water Phantom...
A. Oleś, J. Szupan, J. Susnowski—Neutron Diffraction Method for Sheel Texture Determination...

CHEMISTRY
A. Sienawska, J. Ogłaza, A. Czirkowski—Investigation of the Efficiency of Decontamination by Means of a Steam Jet...
W. Stachowiak, Z. Kęcki, S. Mine—Gamma Radiolysis of Liquid Decahydroneaphthalene...

ENGINEERING AND EQUIPMENT
E. Chrusciel, T. Dąbek, K. Korbel, J. Massalski, T. Owsiak, J. Studniecki—A Borehole Neutron Generator...
W. Trusiewicz, K. Żarnowiecki, S. Pęzona—Rapid Comparative Method of Identifying Beta-Ray Emitters with the Aid of a Scintillation Counter...
S. Pęzona, K. Żarnowiecki—A Low Background Beta Scintillation Counter...

LETTERS TO THE EDITOR
L. Domasik, A. Lipiński, A. Szynański—A Fast Electrometric Amplifier...
J. Kalisz, A. Włodzic—A High-Frequency Square-Wave Type T-402 Generator...

BIOLOGY
J. Kwapulński—Variations in the Beta Specific Radioactivity of Bottom Matter in the Shallow Barrage Reservoir at Koziłówka Góra...

Available From CFSTI TT 68-50011/2
AEC-tr-6931/2 UC-34
### CONTENTS

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. V. Bruyevich: Stability in Chemical Composition of Ocean Waters during Post-Precambrian Time</td>
<td>747</td>
</tr>
<tr>
<td>Yu. V. Isotov and Yu. M. Sautskiy: Countercurrents of the Kuroshio</td>
<td>755</td>
</tr>
<tr>
<td>A. P. Ivanov and P. Ya. Ganich: The Structure of Light Scattering Which Occurs in a Water Environment When Illuminated by a Collimated Beam of Light</td>
<td>762</td>
</tr>
<tr>
<td>B. S. Shevelev: Observed Large-Scale Structure of Turbulence in a River Mouth</td>
<td>768</td>
</tr>
<tr>
<td>V. Kh. Bushinskii: The Influence of Microlayers on the Structure and Strength of Antarctic Ice Seas</td>
<td>777</td>
</tr>
<tr>
<td>B. A. Shulyak: On the Nature of the Periodicity of Waves on the Surface of a Nonsolvent Medium (a Critical Review of the Turbulence Hypothesis)</td>
<td>785</td>
</tr>
<tr>
<td>V. S. Medvedev and N. M. Kravtsova: Investigation of Quantitative Distribution of Suspended Coastal Waters of the White Sea</td>
<td>792</td>
</tr>
<tr>
<td>G. G. Gavrilov, Ye. L. Isayev and B. A. Shevchenko: Magnetic Anomalies and Bottom Morphology of Island Areas of the Northwest Pacific Ocean</td>
<td>804</td>
</tr>
<tr>
<td>Ye. V. Vorotnikova, Ye. N. Isayev and A. A. Shvydler: Relationship Between Magnetic Anomalies and Bottom Structure in the Northwestern Indian Ocean</td>
<td>810</td>
</tr>
<tr>
<td>V. N. Bogoyavlenskii: Lithological Characteristics of the Surface Sediments of the Submarine Canyons in the Southeastern Part of the Baltic Sea</td>
<td>818</td>
</tr>
<tr>
<td>B. N. Kurenko: Marine Geological Studies in the Vicinity of Iceland</td>
<td>827</td>
</tr>
<tr>
<td>L. N. Zarevskaya and N. G. Kunitsko: Effects of Different Concentrations of Nitrate Nitrogen on Photosynthesis, Pigment Accumulation and Cell Division in Scleractinia corals (Cten.)C.</td>
<td>847</td>
</tr>
<tr>
<td>N. M. Voronina and A. G. Naumov: Quantitative Distribution and Composition of Mesoplankton in the Southern Ocean</td>
<td>854</td>
</tr>
<tr>
<td>V. N. Groze, E. P. Balshina and O. K. Blajeva: Production of Planktonic Copepods in the Nurtive Zone of the Black Sea</td>
<td>860</td>
</tr>
<tr>
<td>Yu. N. Makarov and B. S. Averin: Quantitative Distribution of Zooplankton in the Shelf Waters of the Mozambique Channel</td>
<td>874</td>
</tr>
</tbody>
</table>

### METHODS AND INSTRUMENTS

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>O. A. Vladimirov: Calculation of the Harmonic Constants of Some Components of the Tidal Wave from Daily Observations</td>
<td>848</td>
</tr>
<tr>
<td>A. M. Bragimov, Sh. D. Nasedyov and E. S. Agalarev: Electric-Contact Recording Wave Gage of Polymeric Material</td>
<td>851</td>
</tr>
<tr>
<td>Yu. A. Bogdanov, Yu. A. Grekovitch and M. G. Shapeshnikova: Protein Determination in Aqueous Suspensions</td>
<td>854</td>
</tr>
</tbody>
</table>

### INFORMATION

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. V. Bruyevich: Fourth Conference on the Chemistry of the Sea</td>
<td>857</td>
</tr>
<tr>
<td>V. P. Parichevsky and K. M. Khaylov: The Bonding of C14, C13, and Zn65 by Hydrophilic High Molecular Compounds Soluble in Sea Water</td>
<td>881</td>
</tr>
<tr>
<td>I. A. Sokolova, V. P. Parichevsky and N. V. Sokolova: Methods and Data on N. E. Study of Concentration of the Hydrosphere with Sr85</td>
<td>858</td>
</tr>
<tr>
<td>B. L. Tarskov: Scientific Conference on Sea Ice</td>
<td>879</td>
</tr>
<tr>
<td>I. M. Belousov: Oceanography at the 14th General Assembly of the International Union of Geophysics and Geophysics</td>
<td>863</td>
</tr>
<tr>
<td>J. A. Filippov: The Main Results of the 6th Conference of Baltic Oceanographers</td>
<td>867</td>
</tr>
<tr>
<td>P. V. Ushakov: The Oceanographic Museum at Monaco</td>
<td>874</td>
</tr>
</tbody>
</table>

### FOREIGN NEWS

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. I. Solikin: A New System of Recording and Storing Oceanographical Data</td>
<td>876</td>
</tr>
<tr>
<td>B. I. Solikin: Lure Device for Underwater Photography</td>
<td>876</td>
</tr>
</tbody>
</table>

### REVIEWS

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. V. Voytkovich and Ye. I. Khodko: The Book by Yasuo Miyake</td>
<td>877</td>
</tr>
<tr>
<td>Alphabetical Index by Subject</td>
<td>879</td>
</tr>
<tr>
<td>Alphabetical Index by Author</td>
<td>892</td>
</tr>
</tbody>
</table>

Available From The American Geophysical Union
CONTENTS

SOIL MAP OF THE WORLD, by V. A. Kovda, B. G. Rozanov, and Ye, M. Samodelova ........................................ 3

GENESIS AND GEOGRAPHY OF SOILS

NATURE OF THE HELIAXIAL HORIZON OF LIGHT GRAY FOREST SOILS ON MORAINIC LOAMS, by I. I. Lebedev .......................... 16

SOIL CHEMISTRY

LIBERATION OF NITROGEN DIOXIDE FROM SOIL, by B. N. Makarov .............................................................. 20
NATURE OF HUMIC ACID ASH IN DRY STEPPED SOILS, by A. A. Tsvet .......................... 26

AGROCHEMISTRY AND BIOCHEMISTRY OF SOILS

BIOCHEMISTRY OF MOLYBDENUM, by Yu. V. Peev .......................... 34
AVAILABILITY TO PLANTS OF NITROGEN FIXED IN THE SOIL UNDER FIELD CONDITIONS, by Ye. I. Shilova .......................... 34

SOIL PHYSICS

SOIL COMPACTION AND SUGAR BEET YIELDS, by A. P. Kolomiyets .......................... 55
MOVEMENT OF WATER IN STRATIFIED SOILS DURING EVAPORATION, by K. Zameamurad and A. S. Frid ........................................ 65
CORRELATION BETWEEN SOIL SEPARATES, MINIMUM MOISTURE CAPACITY AND MAXIMUM HYDRICOSMOPHY, by N. N. Afanasyeva and V. V. Pin'ev .......................... 71

METHODS AND INSTRUMENTS

INSTRUMENT FOR QUANTITATIVE DETERMINATION OF SOIL COLORED IN THE FIELD, by V. V. Dobrovol'sky and R. P. Chupakhin .......................... 61

METHODS

COLORIMETRIC DETERMINATION OF NITRATES IN SOILS BY REDUCTION TO AMMONIA, by V. N. Kudyaerov .......................... 67
DETERMINATION OF VANADIUM, MOLYBDENUM, MANGANESE, TITANIUM, AND IRON IN THE SAME SOIL, SAMPLE, by Yu. I. Dobritskaya .......................... 83

DISCUSSIONS

SOME UNRESOLVED PROBLEMS IN CLASSIFICATION AND SYSTEMATIZATION OF USSR SOILS, by Yu. A. Liverovskiy .......................... 109

BOOK REVIEWS


ABSTRACTS .......................... 121

Available from the Soil Science Society of America

- 194 -
M. Barzyko, B. Patry: Osteogenesis imperfecta tarda ........................................ 859
Z. Kusiężyński, L. Nowecko: Radiologic examination of the morphology and function of the lacrimal ducts .............................................................. 659
J. Dobrowolski: Acquired bronchiectases as "clinical mask" of various pulmonary diseases ........................................................... 673
J. Dobrowolski, S. Szyzko: Cavitary pulmonary carcinoma .................................. 693
W. Kowalski: Congenital short esophagus .................................................. 692
A. Kalisz, B. Romanowski: Analysis of causes of divergent results of gastroscoptic and radiologic examinations .................................................. 697
B. Romanowski, A. Kalisz: Intussusception of the stump of the vermiform appendix imitating tumor of the cecum .................................................. 707
W. Moczkowski, J. Strzyżewski, J. Wojtowicz, S. Zierhofer: Diagnostic angiography in expansive changes in the kidneys .................................................. 711
J. Mąjkiewicz, M. Klamut, J. Trojaczek, M. Ważny: Radiologic diagnosis of unilaterally small kidney .................................................. 727
J. Wojtowicz, J. Strzyżewski, S. Zierhofer: Transverse rupture of the kidney with double renal arteries .................................................. 739
J. Ratajewska, J. Kukołowscy-Machnicz: Results of X-ray treatment of chronic suppurative otitis in children with osteoarticular tuberculosis .................................................. 742
M. Hartel-Ulkowska: The value of radiotherapy in the treatment of primary sarcomas of the brain .................................................. 744
J. M. Wojciechowski: Studies on the osteotropic properties of radioactive chromium (99Cr). Part II .................................................. 749

Available From CFSTI TT 68-5001/6
D. Aleksander, W. Wyczesanka-Mikulanska: Long-run simultaneous electrocardiographic recording in the diagnosis of transient cardiac ischaemia .................................................. 530
T. Orłowski, J. Wojtasiewicz-Korbas, J. Gliwak, Z. Kamiński: Thiamine suppressive treatment of nephrotic syndrome .............................................................. 522
J. Osyczka, A. Marcyniuk, J. Czechiewicz, B. Sołtys, Z. Filip, J. Gulewicz: Sodium, chloride and water balance in the immediate postoperative period in patients operated upon for gastric carcinoma .................................................. 572
M. Wierzchowska, J. Uszczyk, W. Kozłowski: The rheumatoid factor and antinuclear antibodies in patients with viral hepatitis ................................................................. 566
B. Kowal-Gierczak, W. Paburska-Adamczyk, H. Haliczew: Activity of salivary muco-
aminase in allergic bronchial asthma ............................................................ 584
P. Krulowska, J. Czycz, H. Haliczew: Early stage of aspergillosis of the lung ............. 590
J. Nowicki, P. Krulowska, K. Piekar, iński, J. Gazdowski: Surgical treatment of pul-
monary aspergillosis ......................................................................................... 594
W. Reszeczki, S. Frenkel, J. Langer: Results of "early" operative treatment of patients with pulmonary carcinoma ...................................................... 601
T. Otto, M. Płotowski, K. Traczyk: Assessment of the value of mediastinoscopy in mediastinal and pulmonary diseases, on the basis of 100 own cases ......................... 608
A. Parys: Practical application of radioactive isotopes of "Ca" and "Sr" in orthopedic surgery ................................................................................................................. 617
J. Pellar, E. Łukasik, M. Przywara: Osmotic resistance of erythrocytes in children with congenital heart disease and the effect of hypotonic solutions on erythro-
cytes ................................................................................................................ 622
K. Wolska: A modified method of heart dissection ................................................ 629
K. Wolska: Attempt at an explanation of the cause of cardiac death in cases of endo-
cardial fibrinolysis .......................................................................................... 637
W. Parafina: Tuberculosis of the myocardium ...................................................... 640
K. Schneiberg, T. Górska: X-ray irradiation and thymus as the factors enhancing the chemical cancerogenesis in mouse skin .............................................. 647
J. Dybicki, S. Wróbel, L. Piłat, M. Wójcik: Attempt at the treatment of acute myocardial infarction in dogs by partial endocardial resection .............. 654
W. Kraśnik, Z. Huber: Disorders of the brain bioelectric activity in patients with polycythemia vera .............................................................. 660
T. Domżal, J. Deżyńska, L. Gawlik, B. Ligeziszewska: Investigations of the change of biouletrical reactions of the brain to barbiturates after head trauma .... 666
W. Kowalski, K. Falekiewicz: Concentration of sodium, potassium, calcium and chlorides in peripheral blood and in cerebrospinal fluid in patients after strokes .......... 675
Z. Cygan, W. Rasiwietz, T. Zaj: Serum mucoproteins in the course of certain skin diseases and in early syphilis ................................................................. 682
A. Majewska: Paper electrophoresis of total proteins and mucoproteins in saliva ................................................................. 687
H. Pawłowska-Michalik, H. Halawa, S. Piatzek: Proteolytic activity of saliva ........ 694
H. Pawłowska-Michalik, H. Halawa, S. Piatzek: Comparison of the proteolytic activity of saliva, serum and urine ................................................................. 699

Available From CFSTI TT 69-5007/3
Vol 8, No 3, 1969

- 196 -
F. Jędrzejczyk, M. Cieslik: Chlorides and inorganic phosphates in saliva: is on the paternal gland and in serum in atrophic stomatitis ........................................ 702
M. Baraniska-Giacowksa, W. Załuski, H. Waszkiewicz-Gabri: Clinical diagnosis and the histological findings in dental pulp ................................................................................................................................................ 722
M. Baraniska-Giacowksa, H. Waszkiewicz-Gabri: Biological significance of clinical manifestations in evaluation of the state of dental pulp in the light of histological examinations ........................................................................................................................................ 725
H. Brębowicz, H. Gozdiewa, Z. Krawczyńska, J. Gruszczynska, K. Baraniecka, Ł. Kaczyńska: Actual possibilities of prophylaxis of rheumatoid arthritis ........................................ 729
J. Wójcik, I. Roszkowski: Investigations of the concentration of fum, copper, total phosphorus and alkaline phosphatase in full blood, plasma and erythrocytes in cases of normal pregnancy and one complicated by idiopathic haemolysis ...................................................... 741
J. Urban, O. Zasztowiak: The influence of β-receptors' blockade upon the action of rat's uterus contractility inhibiting agents ........................................................................................................................................ 752
M. Ustysiński, O. Zasztowiak: The effect of plasma kinins upon the electrophysiological phenomena of the rat uterus cells membrane ........................................................................................................ 769
W. Fijalkowski: Current trends in psychoprophylaxis of pregnancy and labor ........................................ 788

Available From CFSTI TT 69-50007/3
Vol 8, No 3, 1969
Contents Volume 3, Number 6 - November-December 1967

Composition of Vlels of Ochrolea-Uttingia Mycorrhiza
D. K. Kersten

Growth and Assimilation Production of Microorganisms
Lactobacillus, N. S. Goeckelhain and O. V. Makoveva

Alteration of the Properties of Petroleum Oils by Mycoflora

Bacterial Contaminants of Yeast Growing on Petroleum Hydrocarbons and Some of their Physiological Characteristics
E. I. Kvasnikov, L. A. Mel'nichevskaia, M. S. Sternevik, O. F. Petrenko, R. A. Zavedskaya, and N. S. Pavlovskaya

Effect of Fatty Acid Salts on Yeast Growth, K. Rizvanov and V. Kh. Popov

A Rapid Method of Disrupting Conidia of Aspergillus
A. A. Gennadiev and E. N. Fradkova

Effect of Some Sapotia on Alcoholic Fermentation
L. R. Shecherbakovskii and G. F. Belov

Aromatic Aldehydes of Sherry and Muscat, L. M. Stepanov

Additional Sources of Inedible Raw Materials for Baking
Yeasts Production, M. Ya. Kalyuzhanaya, V. A. Ivanukovich, and L. N. Vanyugov

Amino Acid Composition of Sugar Beet Leaf Silage
M. A. Ter-Karapetyan and V. A. Petrosyan

Content of Organic Acids in Apples and Its Variation During Storage, A. A. Kolesnik and L. I. Avedeva

Proteolytic Activity of Fungi from the Leaves of Some Varieties of Fig Trees Grown in Uzbekistan, V. I. Solov'ev and Yu. A. Akhmedov

Phytochemical Properties of the Fruit of Sazgery Pimientum
A. N. Nigmatadzhe and R. N. Lomukhov

Available From The Faraday Press

Single Issue $35
Annual Subscription $120

© 1969 by The Faraday Press, Inc.
All rights reserved. This publication or parts thereof may not be reproduced in any form without permission of the publisher.

The Faraday Press, Inc.
64 FIFTH AVENUE, NEW YORK, N. Y. 10011
## Contents (cont'd)

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fractionation of α-Casein with an Acetate Buffer. Sh. G. Ganzhiev.</td>
<td>722</td>
</tr>
<tr>
<td>Chromatographic separation of Pancreatic Hydrolyases on CM-cellulose. P. Prokofiev.</td>
<td>723</td>
</tr>
<tr>
<td>Rotation of Bacterial Nucleases by the Filtration. L. P. Lesel'dar-Faja, V. Kal'tsova.</td>
<td>711</td>
</tr>
<tr>
<td>Gelatinization of Bacterial Nucleases by Gel Filtration. L. E. Lesel'dar-Faja, V. Kal'tsova.</td>
<td>711</td>
</tr>
<tr>
<td>Biosynthesis of Carotenoids by the Fungus Flavescens Tripsina on media with different Sources of Carbohydrates. F. S. Kolen and M. G. Golubov.</td>
<td>738</td>
</tr>
<tr>
<td>Bacteriophage-Induced Changes in the Physiological and Biochemical Properties of Nodule Bacteria. O. I. Koleshko, M. K. Teveleva, and R. A. Spassova.</td>
<td>741</td>
</tr>
</tbody>
</table>

### Brief Communications

**A Study of the Polyphenols of the Fruit of Subtropical Persimmon. E. P. Kurilo.**

**Author Index**

Available From The Faraday Press
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. P. Ivanik and N. I. Ryabchenko</td>
<td>Some Physicochemical Changes in DNA Isolated from the Organs of Irradiated Rats</td>
<td>7</td>
</tr>
<tr>
<td>E. V. Moiseenko</td>
<td>Vulnerability of Irradiated Sperm DNP to DNAase I</td>
<td>18</td>
</tr>
<tr>
<td>A. P. Galkin and I. N. Todorov</td>
<td>On the High Radiosensitivity of the Biosynthesis of Mitochondrial DNA</td>
<td>26</td>
</tr>
<tr>
<td>V. D. Rogozkin, E. I. Marinenko, and A. K. Plyushchev</td>
<td>Effects of Adenosine Triphosphoric Acid on the Oxygen Level in the Tissues in Connection with Its Influence on the Radiosensitivity of Animals</td>
<td>33</td>
</tr>
<tr>
<td>K. A. Lebedev and V. Ya. Ganina</td>
<td>Formation of Specific and Nonspecific Immunoglobulins in the Lymphoid Cells of Guinea Pigs Subjected to X-Irradiation After the Injection of an Antigen</td>
<td>47</td>
</tr>
<tr>
<td>N. N. Dumbrova</td>
<td>Some Data on the Changes in the Synaptic Endings of the Solar PLEXUS Under the Action of Whole-Body X-Irradiation</td>
<td>50</td>
</tr>
</tbody>
</table>

Available From AEC-tr-7024
CONTENTS continued

O. P. Ol'shevskaya and S. P. Yarmolenko. 
Effects of Radioprotectors Under Conditions of Fractionated Irradiation.................. 76

N. V. Lukhnik and K. N. Yakovenko. In- 
fluence of Myoxin Used at Various 
Times on the Yield of Chromosome 
Aberrations Induced by Y-Rays........... 79

G. A. Bulbak. Influence of Extirpation 
of the Adrenal and Administration of 
Hormone Preparations to Intact and 
Adrenalectomized Animals on Radiation 
Changes in the Perimural Digestion........ 89

G. F. Antonchenko, N. A. Koshurnikova, 
and E. L. LyubchanskiY. Morphological 
Changes in the Lungs of Rats After In- 
halation of Large Doses of Soluble 
Plutonium-239 Compounds.................. 97

Influence of Sublethal Doses of Pen- 
etrating Radiation on the Distribution of 
Various Compounds of Radioactive 
Iron in the Organs and Tissues of the 
Guinea Pig.................................. 105

G. A. Tkacheva. Cytochemistry of the 
Adrenal Gland During Subacute Radio- 
ation Sickmess from Incorporated 
Poliomium-210.................................. 112

Yu. F. Koval' and V. M. Kondrashev. 
 Acceleration of the Elimination 
of Cesium-134 from the Organism........... 122

M. B. Glintsburg. The Zinc Content in 
Tissues of Rats After Whole-Body Lethal 
Irradiation and Chronic Irradiation 
with X-Rays................................ 127

G. V. Dobryakova. Peculiarities of the Be- 
havior of Barium-140 and Promethium 
147 in the Organism After Intratracheal In- 
troduction.................................. 130

A. N. Sirotkin, N. I. Burov, and N. A. 
Korneev. Transfer of Strontium-90 
Through the Placental Barrier in Cows..... 134

S. M. Puchkova. The Role of Tissue Prote- 
inels in the Fixation of Certain 
Radioactive Isotopes....................... 140

Z. K. Kalninya and S. A. Osipenko. Coef- 
ficients of Accumulation of Strontium 
and Strontium-90 in Lake Plants and 
Plankton................................ 143

N. P. Dushauskene-Duzh, G. G. Polikarrov, 
and B. I. Styro. Coefficients of Ac- 
cumulation of Strontium-90 in Certain 
Fish (Radioecological Investigation)....... 146

I. A. Sarapul'tsev, I. Ya Panchenko, A. M. 
Sirotkin, I. M. Rasin, and V. P. Shilov. 
Distribution of Strontium-90 in Various 
Portions of the Gastrointestinal Tract 
of Cattle After Chronic Intake of the 
Isotope and the Dose Rates Created By It.... 150

Available From AEC-tr-7024
CONTENTS continued

M. I. Verskit. Effects of X-Radiation on the Permeability of the Alga Nitella Flexilis to $^{22}$Na Ions .......................... 156


B. S. Fomenko and A. I. Medvedev. Influence of $\gamma$-Irradiation of Seeds of Various Plants on the Metabolism of Tyrosine, Phenylalanine, and 3,4-Dihydroxyphenylalanine in Seedlings .......................... 166

R. E. Panovsk. Influence of the Radioprotector AET (S-$\alpha$-Aminoethylisothiourea. Br'l.tr) on the Growth and Development of Barley Plants at High Doses of $\gamma$-Irradiation by $^{137}$Cs ......................... 174

A. N. Kolesnikova, G. V. Barinov, and A. Ya. Zesenko. Radiocological Investigation in the Region of Mururoa Atoll (Tuamotu Island) .......................................................... 180

L. N. Postnikov. Continuous Monitoring of the $\gamma$-$\beta$-Field of the Vertical Biological Channel of the VVR-M Reactor ........................................ 186

BRIEF COMMUNICATIONS

G. F. Gornaeva. Roentgenomorphoses of Drosophila melanogaster Macrocchaetae After Irradiation of Larvae and Pupae at Various Stages of Development .......................... 196


CHRONICLE

M. L. Efimov, O. K. Kabiev, V. G. Kondratenko. Second All-Union Symposium on the Problems of Tissue Radiosensitivity .......................... 210

B. R. Kirichinskii, V. A. Barabol. Radiobiological Symposium in Kiev .......................... 213

Moscow Seminar, "Theoretical Aspects of Protection, Sensitization, and Recovery Under Radiation Influences" .......................... 215

For the Information of Authors of the Journal, Radiobiology .......................... 220

Available From AEC-tr-7024 - 202 -
CONTENTS

N. I. Ryabchenko, V. V. Simonov, A. M. Poverennyy. The Destabilizing and Denaturing Effects of Ionizing Radiation on the Secondary Structure of Deoxyribonucleic Acid.......................... 1

E. V. Moiseenko. On the Primary Nature of Damage to Supermolecular DNA................... 8

S. Ya. Tuchkova. Autoradiographic Investigation of RNA Synthesis During Restoration of the Regenerative Ability of the Limbs of Axolotl, Suppressed by X-Irradiation........................................ 18

M. I. Ozerskiy. Mechanisms of the Change in the Permeability of the Membrane Structures of the Cell Under the Action of Ionizing Radiation........................................... 26

N. F. Smirnova, L. A. Andrianova. Disturbance of the Neurosecretory Function of the Hypothalamus During the First Hours After the Influence of Ionizing Radiation.............................. 32

N. D. Egorova. Dynamics of the Saturation of the Blood and Organs with Ascorbic Acid and Riboflavin During Radiation Sickness............................................... 39

V. N. Semagin. Compensation of Radiation Damages to the Embryonic Brain.................. 40

A. M. Kononenko, G. V. Farafanov. On the Change in the Number of Epithelial Cells on the Villi of the Small Intestines of Irradiated Mice.................................................. 50

E. F. Romantsiev, E. V. Kozhrev, V. M. Mituyushin. Coefficient of Respiratory Control and Ultrastructure of the Liver Mitochondria of Irradiated Rats........................ 55

V. S. Kondrat'ev. Principles of the Change in the Activity of Certain Enzymes in the Rat Liver in the Case of a Single Total Irradiation (Histoenzymochemical Investigation)...................... 62


E. N. Chirkova and G. G. Avtandilov. Dynamics of the Accumulation of Heavy Hydrogen in the Aqueous Phase of the Rabbit Organism After Prolonged Administration of Tritium Oxide........ 74

Available From AEC-tr-7025
<table>
<thead>
<tr>
<th>Author/Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. A. Ivanov. Influence of Single and Double Irradiation of Animals on the Response of Complement Fixation and the Complement Function of Blood Serum</td>
<td>72</td>
</tr>
<tr>
<td>K. K. Zaiteva, D. G. Dzerebochko, T. G. Zaiteva. Influence of Separate and Combined Use of 5-Methoxytryptamine and Cystaphos on the Formation of Endogenous Colonies of Hematogenic Tissue in the Spleens of Irradiated Mice</td>
<td>84</td>
</tr>
<tr>
<td>D. M. Grodzinskii, I. N. Gudkov. Apical Dominance and Regeneration in Vegetating Plants After Y-Irradiation</td>
<td>100</td>
</tr>
<tr>
<td>A. T. Selisebaev and M. K. Bishaeva. Change in the Activity of Certain Oxidation-Reduction Enzymes in Plants with Different Radiosensitivities</td>
<td>109</td>
</tr>
<tr>
<td>N. M. Berezina and A. A. Narimanov. Restoration of Radiation Damages to Cotton Seeds Under the Action of High Temperature</td>
<td>116</td>
</tr>
<tr>
<td>G. A. Shal'nova. The Hoigne Reaction and Determination of Cytotoxins in Rats After the Administration of Radioactive Substances</td>
<td>121</td>
</tr>
<tr>
<td>D. S. Parchevskaya. Estimation of Absorbed Doses of Y-Irradiation in Small-Sized Globular Hydrobiolts</td>
<td>139</td>
</tr>
<tr>
<td>D. P. Marchyulenene and G. G. Polikarpov. Pathways of Penetration of Radionuclides Into Fresh Water Mollusks and Insect Larvae</td>
<td>146</td>
</tr>
<tr>
<td>A. S. Popov and A. A. Mikhailova. The Complex Dose Dependence of the Rate of Growth of a Cell Culture in Vitro After External α-Irradiation</td>
<td>151</td>
</tr>
<tr>
<td>F. A. Makhlis and Yu. P. Pavlov. Radiation Heating of Biological Specimens in the Case of Y-Irradiation</td>
<td>161</td>
</tr>
</tbody>
</table>

Available From AEC-tr-7025
CONTENTS, continued

BRIEF COMMUNICATIONS

S. A. Belovskaya and A. N. Bekchanov. Changes in the Neurons of the Retina of Rabbits Subjected to the Effects of Ionizing Radiation .......................... 175
Yu. V. Ivanov. Damage to the Endothelium of the Blood Vessels by Ionizing Radiation .................................................. 175
A. P. Levitskii and V. P. Rozitskii. Enterocytes of the Pancreas and Duodenum of Rats under the Action of X-Rays and Thiophosphamide .................. 164
L. V. Kharitonova and A. I. Nevorotina. Influence of Radiation on the Process of Secretion of Adrenocorticotropic Hormone (ACTH) from the Anterior Pituitary into the Blood ........................................... 188
I. B. Fridlyand and M. B. Ginburg. The Zinc Content in the Pancreas and Sugar Content in the Blood of Rats in the Long-Term Periods After the Influence of Ionizing Radiation ........................................... 195
A. A. Ivanov. Dynamics of the Appearance of Incomplete Antibodies Detected by the Coombs Test in Single and Repeatedly Irradiated Animals .................................................. 199
V. D. Shvedov. Investigation of the Sensitivity of Rats to the β-Radiation of Incorporated Strontium-90 as a Function of the Age and Sex .................................................. 201
R. E. Panoyan. On the Joint Action of the Radioprotector AET and γ-Irradiation in the Production of Chlorophyll Mutations in Barley .................................................. 205
O. I. Belyaeva. Accumulation of Strontium-89 and Manganese-54 by Hypoelastie Crustaceans Pontella mediterranea Ch .................................................. 208

CHRONICLE


Available From AEC-tr-7025
CONTENTS

A. A. Stotsky: The Influence of Atmospheric Turbulence on the Directive Gain of a Linear Antenna ........................................ 365

R. B. Vaganov: Dielectric Prism in a Beam Waveguide ................. 340


V. N. Bannik: Surface Waves in a Semi-Infinite Array ................... 350

A. N. Tureckova: Spatial Processing of a Signal in the Presence of Phase Instabilities Along the Aperture of the Antenna Array ........................................ 355

E. B. Dobreva, V. F. Kusmorchuk and Yu. V. Lebedinskiy: The Probability Distribution of Signal and Noise Amplitudes and of Their Ratio in the Presence of Rayleigh and Logarithmically Normal Fading ......................................... 363

Ya. G. Rodionov: Stationary Distribution of Amplitude and Phase of Oscillations in a Tracking Filter in the Presence of Small and Large Noise Interferences ................................................................. 367

V. A. Sokolov, A. N. Guldinov and A. P. Bukin: The Choice of Signal Polarization ................................................................. 375

I. I. Kuznetsov: Investigation of the Efficiency of Signal Separation by the Method of Least Squares .................................................. 281

A. A. Trokhachev: Two-Stage Detection of a Nondispersive Fluctuating Signal ................................................................. 387

A. S. Protosev: Calculation of the Duration of Output Pulses from a Transmission Filter ................................................ 392

E. V. Yelakh and M. M. Zelinskii: The Ideal Transistor Power Converter ................................................................. 397

V. I. Besinov and B. Ye. Zheludevsky: The Coefficients of Waves in a Three-Frequency Traveling-Wave Parametric Amplifier ................................................................. 402

M. P. Filinov and T. M. Pishkas: Wave Processes in a Laser Taking into Account the Distribution of the Population Inversion Over the Cross Sections of the Active Medium ......................... 413

V. S. Etkin: Development of the Theory and Technology of Parametric Amplifying Systems with Lumped Reactive Nonlinear Elements in the USSR ................................................................. 419

A. S. Tager and A. D. Khodnevich: IMPATT Diode Oscillators with Electrical Frequency Tuning and Multifrequency Oscillators ................................................................. 438

V. V. Mikhailov and G. A. Kalinin: Emissive-Adsorptive Properties of Barium Oxide Films and Barium Activated Barium Oxide Films, on Metals of the Platinum Group ................................................................. 443

BRIEF COMMUNICATIONS

Yu. I. Malysheko: Measurement of Absorption Coefficient of Water Vapor in the Transparency Window at 1.3 mm ................................................ 447

B. V. Kondrat’ev, N. I. Leshik, I. N. Saly and V. M. Sedykh: Investigation of a Nonsymmetric Strip Line with a Charged Strip of Arbitrary Thickness ................................................................. 449

K. S. Stankevich: Measurement of Parameters of Small Antennas by the Method of Two-Beam Radiation. Ideal Black Bodies at Different Temperatures ................................................................. 452

D. I. Mirovitskii, V. A. Torg ovenov and G. I. Cherkinov: Regularities Characterizing Directivity Patterns of Multielement Antenna Systems of Large Dimensions ................................................................. 456

A. F. Kuzmin: Lorentz Type Quadratic Equations in a Mirror-Symmetric Gyrotropic Medium ................................................................. 459

R. I. Butakov and L. A. Shikter: Probability Characteristics of the Effective Scattering Diameter of a Plate and a Cylinder ................................................................. 462


I. A. Nepevdyun, M. I. Rukhov and F. I. Khvost: Accuracy of Measuring the Time Coordinate of a Signal by the Method of Separation of Maximum in Non-Optimum Filtering ................................................................. 467

A. V. Aitorkhin: Distortion of Coherence by Atmospheric Turbulence ................................................................. 469

S. M. Poplavskii: Measurement of Signal-to-Noise Ratio Using a Single Channel Co-Processor ................................................................. 472

G. V. Konchakov and F. M. Tarasenko: Power Spectra of Sets of Groups of Radio and Video Pulses ................................................................. 475

Available From The Institute of Electrical and Electronics Engineers 206
EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<table>
<thead>
<tr>
<th>Soviet Usage</th>
<th>American equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch</td>
<td>cos⁻¹</td>
</tr>
<tr>
<td>Arccosh</td>
<td>cos⁻¹ (arc cos)</td>
</tr>
<tr>
<td>Arsin</td>
<td>sin⁻¹ (arc sin)</td>
</tr>
<tr>
<td>Arctan</td>
<td>tan⁻¹ (arc tan)</td>
</tr>
<tr>
<td>Arctanh</td>
<td>tanh⁻¹ (arc tanh)</td>
</tr>
<tr>
<td>Cot</td>
<td>cot (ctn)</td>
</tr>
<tr>
<td>Cosec</td>
<td>sec</td>
</tr>
<tr>
<td>Sec</td>
<td>sec</td>
</tr>
<tr>
<td>Cosh</td>
<td>cosh</td>
</tr>
<tr>
<td>Sinh</td>
<td>sinh</td>
</tr>
<tr>
<td>Tanh</td>
<td>tanh</td>
</tr>
</tbody>
</table>

Available from The Institute of Electrical and Electronics Engineers

- 207 -
Selected articles from the Russian-language periodical Sovetskoye Zdravochhraneniiye published by the Ministry of Health USSR.

CONTENTS

Effectiveness Criteria For Mathematical Modelling of Various Types of Medical Aid Rendered to the Population
(I. D. Bogatyrev) .................................... 1

The Development of Specialized Forms of Medical Aid and the Further Differentiation of Medical Specialties
(G. A. Popov) .................................... 8

Study of Deaths Due to Occupational Diseases of the Population of the USSR
(V. A. Bystrova, A. A. Romenskiy) ................. 24

Comparability of a Number of Domestic Demographic Indicators With Those of Foreign Countries
(R. I. Ignat'yeva) .................................. 28

Evaluating the Activity of Medical Institutions in the Terms and Concepts of Mass Service Theory
(L. M. Abol'nikov, K. Ya. Zhurkovich) ............. 33

The Problem of the Development of First Aid Service in Rural Regions
(A. N. Orlov) ..................................... 38

Available From JPRS 48952
I. A. Glushkov: A NEW TASK — NEW TASKS................................................. 1 (1)
M. A. Bagryakov: ENERGY — AN IMPORTANT TECHNICAL-ECONOMIC TASK.... 7 (7)
TATION CIRCLE AT THE ZINTAROVSK PLANT............................................ 15 (15)
T. A. Mikhaylovskii and K. I. Lutkin: USE OF ADHESION SEPARATION TO REMOVE PIRFTH ALCOHOL FROM ETHANOL........................................... 19 (19)
L. A. Nikolaev: OBTAINING HIGH-QUALITY FLUORITE CONCENTRATES FROM CARBONATE-NITRIDE ORES................................................................. 21 (20)
A. P. Borisenko and V. F. Makarova: ON THE ADVISABILITY OF SEPARATELY DRESSING POLYMETALIC AND COPPER PIRITE ORES................................. 24 (23)
V. V. Kotelchukov, I. A. Glushkov, I. E. Shokov, and V. V. Sazanov: THEORY OF OXIDIZING-ROASTING FOR GOLD-ARSENIC CONCENTRATES............... 26 (26)
G. S. Moroz: AUTOMATIC ASSEMBLY LINE FOR COPPER ELECTROLYSIS STARTING SHEETS................................................................. 31 (28)
S. G. Kopyrov, G. M. Gordon, D. N. Kluvin, V. M. Stepanov, and E. V. Tsukanenko: EFFECT ON DUST LOSS OF AN ELECTRIC FIELD CREATED WITHIN A FLUIDIZED-BED FURNACE.... 35 (31)
A. I. Levin and V. M. Gabev: EFFECT OF SULFUR, CONTAINED IN ANODIC METAL, ON ELECTROMINING OF NICKEL.................................................. 40 (35)
L. A. Siniev and N. G. Popova: EFFECT OF SODIUM SULFIDE ADDITIVES ON THE STRUCTURE OF COMMUTED COPPER-NICKEL CONVERTER MATTE............. 43 (39)
D. B. Bazuk-Golov, B. V. Vol'tsev, and B. D. Shintai: AN EXAMINATION OF THE WATER SOLUBILITY OF ARSENIC FROM COBALT-ARSENIC ORES AND THEIR PROCESSING PRODUCTS........ 56 (42)
R. M. Gamberg: NETWORK ANALYSIS FOR PLANT MAINTENANCE AND OPERATION................................................................. 53 (45)
A. G. Pur'ko, M. A. Fishman, and A. P. Smirnov: SULFURIZATION OF ZINC FERRITE WITH SULFURIC ACID SOLUTIONS........................................ 57 (47)
V. A. Karanov, E. A. Tanko, and V. N. Deryagin: PERFORMANCE OF ALUMINUM ELECTROLYSIS CELLS WITH INCREASED THERMAL INSULATION FOR THE CATHODE SHELL ................................................. 59 (49)
A. A. Kostin: CURRENTS IN ELEMENTS OF THE HIERARCHICAL SYSTEM OF ALUMINUM ELECTROLYZERS, AND ADDITIONAL ELECTROMAGNETIC FORCES IN THE MELT.................. 65 (57)
G. M. Volkov: STATISTICAL ANALYSIS OF TECHNOLOGICAL PROCESSES IN ELECTRODE MANUFACTURE................................................................. 76 (62)
A. N. Zaitsev and V. M. Nersesov: EXTRACTING POLYMETHYLSULFIDE FROM NITRATESULFATE MOTHER LIQUORS WHEN PRODUCING AMMONIUM PARASULFATE....... 79 (65)

Available From Primary Sources
Vol 9, No 1, 1969 — 209 — (Continued)
V. A. Ustynyuk, A. A. Novotkuk, V. P. Oshchepkov, B. A. Krylov, and T. V. Aleksandrovskii, ON OBTAINING MONOCRYSSTALLINE TITANIUM, 86 (68)

A. G. Levchenko, M. A. Novitskaya, I. V. Pavlova, and V. A. Krylov, THE EFFECT OF MILL DIAMETER ON THE QUALITY OF METAL ALUMINIZATION PLATES, 87 (71)

I. V. Rybakov and Yu. F. Shevchenko, COMPUTING IN SOLVE ENGINEERING AND ECONOMIC PROBLEMS, CONNECTED WITH TUNGSTEN PRODUCTION, 90 (73)

V. A. Litvakh, V. I. Khazov, V. A. Denisenko, T. G. Boryak, M. T. Brown, V. M. Bityukov, and V. P. Gorkov, THE EFFECT OF MILL DIAMETER ON THE QUALITY OF METAL ALUMINIZATION PLATES, 91 (76)

L. N. Kasrakov, N. A. Sorokin, A. F. Zaitsev, T. I. Alpatov, and V. V. Zaitsev, DESIGN FEATURES OF THE TIP-45T REDUCTION SURFACE FOR MELTING ALUMINUM AND ITS ALLOYS, 93 (79)

V. S. Zamechnov and Sh. G. Matalov, MACHINING OF HEAT-ALLOY DIES BY THE ELECTRIC-SPARK EROSION METHOD, 103 (83)

V. I. Berezhnev, THE DEVELOPMENT OF COPPER PRODUCTION IN THE REPUBLIC OF CHILE, 106 (85)

A. Yu. Voronkov, SUSPENSION SPRAYING OF LEAD CONCENTRATES, 109 (87)

L. N. Merklin, EXTRACTION TECHNOLOGY IN FOREIGN METALLURGICAL PRACTICE, 110 (89)

V. L. Sokolova, ELECTROSTATIC AND DEFLECTION COATINGS, 116 (92)

L. N. Erzelenko, A TUNGSTEN ALLOY FOR ROCKET ENGINEERING, 116 (92)

L. N. Erzelenko, FIRE-TORENGTHENED METALLIC COMPOSITES, 116 (92)

L. N. Erzelenko, HIGH-STRENGTH COMPOSITES, 117 (93)

Note: Numbers in parentheses represent page numbers in Russian original.

RUSSIAN ABBREVIATIONS IN TEXT

AN SSR. ACAD. OF SCIENCES, U.S.S.R.
SMK. CENTRAL COMMITTEE, COMMUNIST PARTY, SOVIET UNION.
SINTETMET. STATE INSTITUTE OF NON-FERROUS METALS.
SIPROGVEST. STATE INSTITUTE FOR THE DESIGN AND PLANNING OF NON-FERROUS METALS INDUSTRY ESTABLISHMENTS.
GIREN. STATE NON-FERROUS METALS SCIENTIFIC RESEARCH INSTITUTE.
GLAVV. DEPARTMENT OF CONCENTRATION OF NON-FERROUS METALS.
GOST. STATE PLANNING COMMITTEE OF COUNCIL OF MINISTERS OF THE U.S.S.R.
ILN. UNION STANDARD.
NIKI. FOR-LITERATURE PUBLISHING HOUSE.
VOKHO. SCIENTIFIC RESEARCH INSTITUTE FOR MECHANICAL CONCENTRATION OF NON-FERROUS METALS.
NII-CI. SCIENTIFIC AND TECHNICAL DIVISION.
PNI-CI. PRODUCTION AND TECHNICAL SECTION.
GOSSTROI. COUNCIL OF THE NATIONAL ECONOMY.
GOSSTROI. CENTRAL OFFICE FOR INFORMATION ON NON-FERROUS METALS.
USSR. UKRAINE SSR.
VAM. ALL UNION ALUMINUM AND MAGNESIUM INSTITUTE.
GRIN. INSTITUTE OF HIGHER EDUCATION.

Available From Primary Sources
Vol. 9, No. 1, 1969 -210-
VESTNIK OF THE USSR ACADEMY OF MEDICAL SCIENCES

No 8, August 1969

This publication comprises a translation of the Russian-language periodical Vestnik Akademii Meditsinskikh Nauk SSSR (English version above), Moscow, Vol 24, No 4, August 1969, pages 1-96. Author's name and original source page accompany each article.

CONTENTS

<table>
<thead>
<tr>
<th>Source Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Mechanism of Insulin Action (V.S. Il'in) ..........</td>
</tr>
<tr>
<td>Chief Problems in the Pathogenesis, Symptomatology, Treatment and Prophylaxis of Diabetes Mellitus (C.G. Baranov) ...................................</td>
</tr>
<tr>
<td>Biosynthesis and Mechanism of Action of Thyroid Hormones (Ya.Kh. Turakulov) ...........................</td>
</tr>
<tr>
<td>Cytogenetic Problems in Endocrinology (A.A. Prokof'yeva-Bel'govskaya) .........................</td>
</tr>
<tr>
<td>The Endocrine System in Aging (D.F. Chebotarev) ...........</td>
</tr>
<tr>
<td>Dyshormonal Tumors and Treatment Thereof (N.I. Lazarev)</td>
</tr>
<tr>
<td>Discussions and Closing Remarks on Papers Delivered on the Second Day of the 27th Session of the General Meeting of the USSR Academy of Medical Sciences ......</td>
</tr>
</tbody>
</table>

Available From JPRS 48941
The Organizational Part of the 27th Session of the General Meeting of the USSR Academy of Medical Sciences included Election of Active Members (Academicians) and Corresponding Members of the USSR Academy of Medical Sciences .......................... 78

Decree Adopted by the 27th Session of the General Meeting of the USSR Academy of Medical Sciences Dealing with the Problem of "Modern Endocrinology and Biochemistry of Hormones," Moscow, 3-6 February 1969 .................................................... 70  120

CURRENT EVENTS

Urgent Ideological Objectives (From the Meeting of the Most Active Party Members in the Scientific Research Institutions of the USSR Academy of Medical Sciences (V.P. Chekurn) ........................................ 86  123

Determination of Residual Air Volume, Total Lung Capacity, Mixing Time and Diffusion Capability of the Lungs, using Inert Gases (B.Ye. Votchal, Z.V. Vorobyeva) ........................................... 91

Available From JPRS 48941
The following is a complete translation of the Russian-language journal "Vestnik Akademii Nauk SSSR" (English version above), Moscow, Vol. 39, No. 7, July 1969. Original source page numbers accompany each article.

Contents

TOWARD THE CENTENNIAL OF THE BIRTH OF V. I. LENIN

Lenin's Ideas of Proletarian Internationalism. P. N. Fedoseyev 1

The Permanent Importance of Lenin's "Materialism and Empiriocriticism" (Session in the Institute of Philosophy, AS USSR). A. T. Pavlov 20

V. I. Lenin and Philosophical Problems of Contemporary Science (All-Union Scientific Conference). Yu. V. Sachkov, R. S. Seyfullayev, and V. S. Yaroshenko 25

Leninism and the Control of Social Processes Under Socialism (Conference in L'vov). O. N. Al'terovich 31

IN THE PRESIDIUM OF THE AS USSR

The Development of Scientific Work on the Stabilisation of Polymers

Urgent Problems of the Institutes of the Humanities 36 40

SCIENTIFIC SURVEYS AND REPORTS

Tasks of Basic Research on Polymer Stabilization. N. M. Emanuel 55


The Processing of Visual Information in the Retina of Vertebrates. A. L. Byzov 74

Study of the Structure of Biological Communities of the Pelagic Zone (44th Voyage of the "Vityaz"). M. Ye. Vinogradov 87

Questions in the Designing of Analytical Instruments. V. A. Pavlenko 98 (Contd)

Available From JPRS 48903
## IN MEMORY OF ACADEMICIAN G. P. FRANTSOV

**INTERNATIONAL SCIENTIFIC RELATIONS**

Phase Transformations and Knowledge of the Depths of the Earth (International Symposium in Australia).

N. I. Khitrova (111)

Soviet-Finnish Symposium of Historians in Moscow.

A. S. Rou (117)

Brief Reports (122)

**SESSIONS, CONFERENCES AND MEETINGS**

The Study of Contacts and Contact Materials (All-Union Conference in Moscow). M. I. Tishkevich (139)

Problems of the Strength of Engines (Conference in Leningrad). Ye. I. Boldyrev (143)

Study of Recent Movements of the Earth's Crust on Geophysical Polygons (All-Union Conference in Ashkhabad). A. A. Pevnev (144)

Questions of the National Use of the Earth's Depths (Conference in Moscow). Ye. I. Panfilov (146)

Age Morphology, Physiology and Biochemistry (Conference in Moscow). Ye. Ye. Antipov (149)

Questions of the History of Slavic-Germanic Relations (Symposium in Moscow). N. D. Ratner (154)

The Economic Development of the African Countries (Conference in Leningrad). M. S. Rozin (157)

**CHRONICLE AND INFORMATION**

Scientists of the Academy of Sciences USSR -- Heroes of Socialist Labor (161)

Jubilees of Scientists (169)

Elections of New Members of the Academies of Sciences of the Turkestani SSR and Kirghiz SSR (171)

The Centennial of the Journal of General Chemistry (172)

Creative Collaboration of Academic Institutes With Industrial Enterprises (174)

The Development of Investigations in the Area of Mongolian Studies (174)

Scientific Organizational Decisions of the Presidium of the AS USSR (176)

**CRITICISM AND BIBLIOGRAPHY**

P. V. Kopnin. The Philosophical Ideas of V. I. Lenin and Logic. Reviewed by I. S. Narinsky (177)

D. S. Davidovich. Ernst Tellman. Pages of His Life and Struggle. Reviewed by S. D. Skazkin (181)

**NEW BOOKS**

Available From JNPS 48903 - 214 -
## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latest Communications Equipment</td>
<td>1</td>
</tr>
<tr>
<td><strong>Communications Engineering</strong></td>
<td></td>
</tr>
<tr>
<td>Single-Peak Monitoring and Measuring Rack, Type SK-1</td>
<td>1</td>
</tr>
<tr>
<td>(A. I. Zudakin, et al)</td>
<td></td>
</tr>
<tr>
<td>Improved Automated Diesel-Generator Plants</td>
<td>11</td>
</tr>
<tr>
<td>(G. S. Lyubskiy)</td>
<td></td>
</tr>
<tr>
<td>Device for Automatic Testing of Multiples of Long Distance Switchboards (APPK)</td>
<td>19</td>
</tr>
<tr>
<td>(Ye. K. Vasil'yev, et al)</td>
<td></td>
</tr>
<tr>
<td><strong>Organization and Operation of Communications Facilities</strong></td>
<td></td>
</tr>
<tr>
<td>Operation of Antenna Switches</td>
<td>27</td>
</tr>
<tr>
<td>(N. U. Korshun)</td>
<td></td>
</tr>
<tr>
<td>Automatic-Service Equipment for Long Distance Telephone Offices</td>
<td>30 (Cont'd)</td>
</tr>
<tr>
<td>(M. F. Prokopenko)</td>
<td></td>
</tr>
</tbody>
</table>

Available From JPRS 48953
CONTENTS (Continued)

INFORMATION

Automation—69............................................. 34
Among Books................................................... 84
Abstracts of Articles Published in Vestnik Svyazi No 7, 1969 47
In Brief About Interesting Things............................ 51

Available From JPRS 48953
CONTENTS

A. A. Prilipayev, R. M. Belsky, and V. V. Malyanov: The effect of water on the rate of epoxidation of propylene oxide in the presence of catalysts based on aluminophosphates with anion exchange properties


Yu. V. Kiselev and N. M. Kharkov: Correlation between the structure and infrared spectra of polyethylene

R. G. Krylov, S. N. Ryabov, and O. F. Gusev: The synthesis of 6,9,12-tricyclo[3.3.3.1^3.7]undeca-1,3,7-triene

M. S. Grinkov, A. I. Malanin, and V. S. Kobyte: Acetone dependence of glass transition temperatures on composition of blends of polymers

A. L. Andreev, A. I. Yashkin, and V. S. Mosin: Effect of the structure of the polystyrene on the relative reactivity in co-polymerization with styrene butadiene rubber in different media


V. V. Rodin, Y. P. Kiselev, and S. R. Ravin: Thermal oxidative degradation of styrene butadiene rubber graft copolymer

V. V. Kiselev and A. N. Pravdikov: Mechanism of oxidative coupling of phenols to form polychlorophenylene oxides and diphenoxides

B. I. Liouvis, N. V. Diabyuk, A. A. Gurov, L. I. Losyanka, and V. A. Andreev: Formation of polyesters in the presence of the dimethyl ether of polyethylene glycol


M. M. Kisin', V. P. Kalmryan, and R. R. Shcherbatyi: Filled polyethylene with steel band; stabilizer with stearic acid

E. F. Nosov and A. M. Markievich: Tetrafluoroethylene (TFE) polymerization in the presence of saturated hydrocarbons

G. V. Vinogradov, A. Ya. Malkin, and V. G. Kulichikhin: The viscosity of stereospecific polyethylene

N. S. Alekhin, L. M. Kozlov, and V. I. Berestov: Kinetics of the polycondensation of nitriles with phthalic anhydride and chloroform


V. I. Krotkov, L. A. Sargsyan, L. V. Pritova, V. D. Shapovalova, G. A. Seredin, and N. A. Spasskii: Preparation of divinyl phosphoric acid copolymers with hydroxylated polyethers

V. V. Rodin, P. N. Grishin, Ya. S. Zykov, S. V. Vinogradov, and V. V. Krylov: Thermal degradation of aromatic polymides at high temperatures

A. V. Chernen, N. I. Lazarev, and M. B. Frenkel: Decomposition of polyphenylenethylylene peroxide in the presence of alkyl diol activators

G. P. Savushkina, V. V. Ivanov, and N. S. Yenikolo: Polymerization of trimellitic anhydride with a fall in temperature during the course of the reaction

B. I. Tzetkov and N. N. Alekseyev: Determination of hardening rates of epoxy resin with anhydrides of carboxylic acids

Available from Pergamon Press
VYSOKOMOLEKUL'XARNYE SOYEDINENIYA

Vol. 10, No. 11, Series 7, 1968

Editor in Chief V. A. Kargin
Deputy Editor in Chief P. V. Kozlov

EDITORIAL BOARD

K. A. Andrianov, B. A. Bocadkin, B. A. Bogochinskii, V. A. Kargin,
H. S. Kolkhizov, A. A. Kondrashov, V. V. Kovalev, P. V. Kozlov,
V. S. Lazikin, S. S. Mitrofanov, N. V. Mitropol'skii, G. I. Slonimskii,
V. S. Smirnov, V. N. Tsitovich, N. P. Yampolskii

Secretary H. S. Kolkhizov

NOTICE TO READERS

Publisher's notice to readers on the supply of an English translation of any Russian article mentioned bibliographically or referenced in this publication.

The Pergamon Press has made arrangements with the Institute of Scientific Information of the USSR Academy of Sciences whereby they can obtain rapidly a copy of any article originally published in the open literature of the USSR.

We are therefore in a position to supply readers with a translation into English or any other language that may be needed of any article referred to in this publication.

Readers wishing to avail themselves of this service should address their request to

Pergamon Translation Service, Pergamon Press Ltd.,
44 Fitzroy Square, London W.1,

where their order or enquiries will receive immediate attention.

D. N. Bond, V. G. Markin, A. I. Kargin and V. A. Kargin: Certain kinetic parameters of the bulk polymerization of vinyl chloride and their effect on the structural-morphological features of vinyl chloride polymers.......................................................... 2189
S. M. Kadyukh, M. M. Pankova and Z. N. Taranova: Thermal degradation of polyethylene under static and dynamic stresses.................................................. 3000
V. I. Eshchen, Z. G. Entelis: Kinetics of polymerization of epichlorohydrin and glycidyl nitrate catalyzed by BF3 ................................................................. 3000

Methods of Investigation

A. N. Kosyrev-Chernykh, N. A. Orlovskii and V. P. Lubredest: Determining the density of polyvinyl chloride................................................................. 3025

Available From Pergamon Press
Determination of Impurities in Liquids on a Spark Ion Source Mass-Spectrometer

Communication 1. Analytical Technique and the Mechanism of Ion Formation
- M. S. Chupakhin, I. A. Kazakov, and O. I. Kryuchkova

Differential Chromatography without a Carrier Gas - A. A. Zelentzovskii, V. V. Sazonov, V. P. Sharitsman, and L. G. Gel'man

The Distribution of the Reagent Azo-Anhydroxy BN between its Aqueous Solution and Organic Solvents - E. P. Gorbenko and V. V. Serebryakov

1-Phenyl-3-methyl-1-benzylimidazole-5 as a Group Extraction Reagent for Chromatographic Analysis - Yu. A. Zolotov, N. T. Sizonenko, E. S. Zolotovitskaya, and E. I. Yakovenko

The Use of Partition Chromatography for Concentrating Traces of Elements
- I. P. Al'marin, T. A. Bol'shova, N. I. Ershova, and M. B. Polianskaya

Arsenate M - A New Reagent for the Rare Earths - S. B. Sarv, R. P. Popliatsona, and R. V. Srolikova

Reagents as a Reagent for Molybdenum - A. M. Lukin, G. S. Petrov, and V. A. Masl'ina

The Chemistry of the Reactions between the Ions of Multivalent Elements and Organic Reagents. Communication 15. The Reactions between Iron (III) and Chromotropic and 2,5-Dichlorochromotropic Acids - V. A. Nazarenko and E. A. Biryuk

The Applications of Atomic Spectroscopy in a General Analytical Laboratory
- I. Ereby

Methods for Separating Elements in Their Different Oxidation States: A Review
- I. A. Tserkovitskaya and V. A. Luginin

BRIEF COMMUNICATIONS
A Successive Extraction-Radiometric Method for Determining Silver and Copper by Means of Phosphorus-32 Labeled Sodium Diethylthiophosphates - K. Abdusalyamov,
A. Ganiev, P. Kh. Nishanov, and A. I. Basev


BOOK REVIEWS
Organic Analytical Reagents - Reviewed by D. Perrin

AUTHOR INDEX (1958-1960)

SUBJECT INDEX (1958-1960)

Available From Consultants Bureau
Announcement .................................................. 69
LIT. .............................................................. 69

The Russian press date (polaznym yevdate) of this issue was 12/19/1968. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Note: The Russian issue of this journal contains a 35-year author and subject index covering the years 1936-1965. This has not been translated since the last issue of each volume year of the translation contains an author index and a compilation of the tables of contents for the issues printed in that volume year.

Available From Consultants Bureau
Available From Consultants Bureau

Contents

Eng./Russ.

Communication 1. The Analytical Characteristics of the Method and the Results Obtained — M. S. Chaplik, L. A. Kazakov, O. V. Kryukhina, and V. P. Drevin ... 76 171

Communication 2. Calculation of pH in Systems Containing Any Amount of Monoatomic Acids and Monoatomic Bases — A. A. Bugaevskii ... 76 171

Types of Color Reactions between the Alkaline-Earth Elements and Chromatographic Acid-Based Anion Compounds — S. B. Savvin and T. V. Petrova ... 80 177

Organic Reagents with Several Functional-Analytical Groups — Communication 3. The Reactions of Silica Oxides and Silicate Chromatography with Yttrium Subgroup Elements — M. K. Akhmedov, N. K. Basargin, and Sh. I. Islamov ... 90 190

X-ray Fluorescence Determination of Zirconium and Hafnium — N. P. Il'in and M. M. Kalman ... 94 194

- Extraction Mechanism of Molybdenum (VI) from Hydrochloric Acid Solution by Oxygen-Containing Solvents — A. I. Busin, V. A. Frolikina, and M. Ya. Korolev ... 103 205

- Pyridylazo-6-dihydro-6-amino phenol, Its Mono- and Dibrominated Pyridine Dyes, and Their Thiazolyl Analogs as Reagents for the Photometric Determination of Cobalt — S. I. Gusev and N. N. Kryukhina ... 107 210

- Fraction of Iron (III) with 1-Pheny l-3-methyl-1-benzoylpyrazole-5. Separation of Phosphonate from Iron — M. K. Chmutova and N. E. Kochetkova ... 112 216

- New Results in Chemical Separation (A Review) — L. Erdey ... 116 221

- Polarographic Behavior of Some Pyrimidine Derivatives and a Quantitative Method for Their Determination — S. I. Belyankina and G. P. Tikhomirov ... 122 227

I. F. Communications

- Possibilities for Determining Inorganic Microimpurities from the Linear Luminescence Spectra of Their Complex Compounds — E. A. Solovev, E. A. Bozhevolnov, N. A. Lebedeva, A. F. Mironov, and R. P. Evstigneeva ... 125 231

- Use of Chlorination in a Hollow Cathode for Determining Difficult-to-Volatilize Elements — G. A. Petsov, V. Z. Krasil'shekh, and A. F. Yakovleva ... 128 234

- Effect of Complexing Agents on the Electrolytic Separation of Metals — K. N. Buglaev, P. N. Kovalenko, V. P. Vladimirrova, A. S. Mavrina, and L. V. Kuznetsova ... 131 236

(Contd)
### Contents

- Conference on Analytical Methods for Persulphates — Reported by Yu. N. Byrodov, F. P. Vampilov, T. P. Vylegzhina, and Yu. B. Sider. ................................. 297
- All-Union Symposium on the Analytical Chemistry of Llmenium, Selemium, and Tellurium — Reported by Yu. B. Gerke. ...................................................... 310
- The Moscow Seminar on Analytical Chemistry — Reported by E. F. Borshchevsky. ............... 312

The Russian press date (podpisshka pechatii) of this issue was 2/11/1969. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Available From Consultants Bureau
CONTENTS

Eng/Russ

Contents (Contd)
CONTENTS

A Kinetic Determination of Vanadium (VI) by Means of Nercolic Acid — A. I. Lazareva and V. I. Lazareva ........................................... 395
An Extraction-Photometric Determination of Sodium in Apatite Minerals by Means of
Lumogallion — V. V. Komarova, L. D. Opanashkaya, and V. D. Petshanskii .......... 396
Photochemical Reactions in Analytical Chemistry, Communication 6. The Use of Photo-
chemical Reduction for the Spectrophotometric and Titrimetric Determination of Tellurium
— A. A. Nemoshkin and E. V. Bezrodkova .................................... 398
2-Diamino-3'-azopyridine — A New Selective Reagent for Cobalt + Sh. T. Talipov,
V. S. Petjorkina, and S. N. Kosolapova ........................................ 400
A Spectrophotometric Study of Complex Formation between Cobalt and 2,4-Thiazolyl-
Resorcinol — A. I. Busev, V. M. Ivanov, and Zh. I. Neumtseva .......................... 402
A Spectrophotometric Determination of Ruthenium as Its Peroxo-bis-glycolato Complex.
tetraurate — N. A. Ewarskaya and T. P. Solovykh ................................ 409
The Use of an Infrared Spectroscopic Compensation Method for Studying Microparticles
in Silicon and Germanium Tetrachlorides — T. N. Sannkova and K. N. Laikina .......... 406
Extraction-Concentration of Impurities during the Analysis of High Purity Materials,
Communication 1. Determination of Impurities in Thuesponous Pentoxide
— L. M. Kul’man, G. I. Zhuravlev, I. A. Kuznetsov, A. K. Galkin, and G. I. Zakharova, and
— T. I. Zakharova ................................................................. 429
Chemiospectrophotometric Methods for Analyzing High Purity Metals and Semiconductors
Materials by Extracting the Main Components with β-β'-Dichlorodiethyldithiole
Communication 2. Determination of Impurities in Gallium Acetate
— L. M. Bugrayeva, L. G. Yulevitch, and V. A. Archipova .......... 431
A Quantitative Mass-Spectrometric Analysis of Germanium and Silicon Tetrachlorides or
Microamounts of the Chlorides of Some of the Groups III-IV Elements ..... 433
— G. G. Berezhnoy, V. G. Baksheev, and L. L. Agafonov .............................. 439
Polarographic Determination of Organic Compounds Which Are Reduced in the Far Negative
Potential Range, Communication 3. The Polaroanography of Vinyl Monomers Containing
Two and Three Nuclear Aromatic Systems — V. D. Bezuglyi and Yu. P. Ponomarov .... 443
Gas-Chromatographic Analysis of Complex Mixtures of Monocarbon Compounds,
Communication 1. Normal Aliphatic Aldehydes and Methyl Ketones
— R. V. Golovnya and V. P. Urutets ............................. 459
Gas-Chromatographic Analysis of Alcohols after Treating Them with Hexamethyldisilazane
— V. G. Brezezkin and V. S. Kruglikova ........................................ 455

BRIEF COMMUNICATIONS

The Correlation between Structure and the Chemico-Analytical Properties of Some Basic
Dyes — A. I. Pilipenko, L. I. Savranski, and Nguyen Mong Shin .......................... 317
An Ac Polarographic Determination of Lead and Tin in Metals, Ores, and Alloys
— L. L. Veselagole .............................................................. 341
Removal of Molybdenum from Solution by Electrolysis on a Mercury Cathode
— I. A. Golubeva ................................................................. 344
The Use of a Pulse Vacuum Excitation Source for the Spectrographic Determination of the
Halogenes — A. V. Karyakin, E. N. Savinova, and T. P. Vdredzeva .................. 346
Thin-Layer Chromatography of Some Organic-Sulfur Compounds — N. N. Novitskaya,
L. E. Zhuravleva, and L. P. Ivanova ............................................ 349

CRITICISM AND BIBLIOGRAPHY

E. S. Pal’shin, B. F. Myasoedov, and A. V. Davydov. The Analytical Chemistry of Proteins
— Reviewed by Yu. A. Zolotov ........................................................... 353
New Books .................................................................................. 355

Available From Consultants Bureau
CHRONICLES
Aleksandr Vladimirovich Vagatsky on his 80th Birthday .................................................. 356 477
A Seminar on the Theory and Use of the Stationary Phase in Gas-Liquid Chromatography — Reported by A. N. Korol' .................................................. 357 477
The Moscow Seminar on Analytical Chemistry — Reported by E. K. Korshunova .................. 359 479

The Russian press date (podpisano ipchati) of this issue was 2/28/1969. Publication therefore did not occur prior to this date but must be assumed to have taken place reasonably soon thereafter.

Available From Consultants Bureau
Available From The American Institute of Physics
Vol 28, no 5, 1969
- 227 -
Available From The American Institute of Physics
Vol 28, No 5, 1969

- 228 -
Magnetic Action of Light in the Recording of an Optical Image on a Thin Film. L. M. Prikhivko ... 395
A. A. Kharkov, L. A. Prikhivko, E. A. Zhestkova, V. A. Fedotov

Observation of Ultrashort Radiation Pulses in Stimulated Scattering of Light in a Kerr Medium. ... 401
Yu. I. Kiselev and V. S. Starodubov

Similarity of Longitudinal and Transverse Critical Currents in Superconducting Alloys with Highly Flaxed Vacancy Lattices. ... 407
Yu. P. Bychkov, V. S. Voroshchagin, N. T. Zozov, V. P. Krasnik, G. B. Surininov, V. A. Malikov

Space-changed Tunnel Current in Al-Al-Oy-Al Junctions. ... 407
A. A. Galkin and D. N. Ignat'yev

Two-level Gas Laser with Coherent Optical Pumping. ... 408
I. G. Basov and V. S. Letukov

Observation of Ultrasonic Oscillations in Nonlinear Ferromagnetic Resonance. ... 410
Ya. A. Manasov and V. V. Surov

Yield of Deuterons Knocked out from the C12 Nucleus by 730 and 1260 MeV Protons. ... 413
V. S. Basov, G. K. Golzov, L. L. Gol'din, L. N. Komorov, I. A. Surodsinskya, G. K. Tumanov

Magnetocaloric Effect in Rare-earh Iron Garnets. ... 416
K. V. Belov, E. V. Talalova, L. A. Chernкова, V. I. Ivanovskii, T. V. Kudryavtseva

Self-focusing of Ultrashort Laser Pulses. ... 419
A. A. Abrashov, N. N. Lugevich, A. M. Prokhorov

Nonlinear Radial Self-focusing of a Modulation Electron Beam in a Plasma. ... 422
V. I. Krasovitskii

Region of Positive Existence of 2S Positronium in a Medium. ... 425
S. I. Urbanovich

Structure of Lamb Dip for Long-lived Systems in Spatially Bound Fields. ... 427
S. G. Rautian and A. M. Shalagin

Kinetic Equation for a Gas of Solitons. ... 430
G. M. Zaslavskii

Approximate Solution of the Three-body Problem with a Local Potential. ... 433
B. Akhmatovskii, V. D. Bel'ciov, and E. Wrazionkoi

Concerning Certain Consequences of the Regge Interaction of Hadrons in the Range 900 ... 435
L. V. Landsberg, I. D. Zhestkina, V. I. Shukov

The Sign of the Product of the Reduced Matrix Elements of E2 Transitions Between the 21/2 + and 27/2 States in Even-even Nuclei. ... 438
V. I. Tissov and L. M. Lutskii

Investigation into the Beta Decay and Determination of Pion Scattering Lengths. ... 441
V. V. Telnov

Electron Capture of the Protos at Small Moment Transfers. ... 443
E. A. Prosolov

On the Origin of Gamma-ray Elements. ... 446
E. A. Ivanov and Yu. A. Novikov

Available from The American Institute of Physics
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
<th>Engl.</th>
<th>Russ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corresponding States in Shock Compression of Metals.</td>
<td>11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>A. P. Rybakov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission Stimulated by Explosion of H2 in CO2</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>V. G. Basov, V. V. Grudin, E. L. Kashelev, E. P. Parkin, A. G. Gurevich</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence of Interaction of Hot Electrons with Quasi-discrete Levels on the Current-voltage Characteristic of a Semiconductor</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>A. N. Zaitev and A. K. Zvezdin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order-disorder Transitions in Adsorbed Nanotonic-Sodium Films</td>
<td>6</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>A. G. Tsurutsu and A. G. Fedorov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence of &quot;Induced&quot; Angular Magnetic Structure on the Magnetostriiction of Dysprosium Iron Garnets</td>
<td>8</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>K. P. Belov, R. Z. Levitin, B. K. Ponomarev, V. F. Popov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electromechanical Effect in Metals.</td>
<td>11</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>O. A. Troitski</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Structure of Cyclotron Resonance Lines of Cadmium.</td>
<td>14</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>V. P. Naberezhnykh and N. K. Danishin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plasma Heating by an Electron Beam Produced in a Turbulent Linear Discharge</td>
<td>17</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>A. I. Karchevskii, V. G. Averin, V. N. Bezmel'niitsyn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some Singularities of the Kinetics of a Current Pinch.</td>
<td>20</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>M. E. Alekseev and V. P. Sondaevskii</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnetooptical Effect of Change of Electronic Structure of a Ferromagnetic Metal Following Rotation of the Magnetization Vector</td>
<td>24</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>G. S. Krinchik and V. S. Gushchin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigation of Highly Excited Levels of Nuclei with the Aid of Neutron-Capture Gamma Rays</td>
<td>26</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>R. B. Begzhanov and S. M. Akhtarov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantum Yield of Generation of an H2 + F2 Mixture.</td>
<td>28</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>V. S. Burmasov, G. G. Dolgov-Savel'ev, V. A. Polyakov, G. M. Chunak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equation of State of Alkali Metals.</td>
<td>30</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Magnetic Surface Levels in Superconductors.</td>
<td>32</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>Can Electromagnetic Interactions of W Bosons Cut off Weak Interactions?</td>
<td>36</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>B. L. Ioffe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Origin of Background X-Radiation.</td>
<td>38</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>M. S. Longair and R. A. Syunyaev</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Available From The American Institute of Physics
Luminescence and Electron-microscopic Investigation of Molecular Complexes in the NaCl:EuCl₂ Crystalline Phases. 
B. S. Gorobets, V. T. Dubinchuk, L. M. Smakovskii

Temperature Dependence of the Pitch of the Magnetic Helix in Rare-earth Metals. 
A. G. Handzhavidze and A. A. Khazadze

Resonance Excitation of Ion-cyclotron Oscillations in a Rotating Plasma. 
A. R. Rozenkov, K. N. Sinelnikov, V. A. Suprunenko, V. I. Farenik, V. V. Vlasov

Reversal of the Sign of the Low Temperature Thermal Emf and the Kondo Effect. 
N. V. Volkenshtein, L. A. Ugodnikova, Yu. N. Tsiovkin

Investigation of the Normal and Anomalous Nernst-ettinshausen Effects in Ferromagnetic Metals. 
E. I. Kondorskii, R. P. Vasil'eva, Yu. N. Arkhipov, A. V. Chernemushkina

Giant Dipole Resonance for the Nucleus ¹⁸¹Ta. 
B. S. Ishkhanov, I. M. Kapitonov, E. V. Lazutin, I. M. Piskarev, O. P. Shevchenko

Vibrational Relaxation of CO₂ and N₂ Molecules in an Expanding Supersonic Gas Jet. 
V. K. Konyukhov, I. V. Matrosov, A. M. Prokhorov, D. T. Shalunov, N. N. Shirokov

Superconductivity of Arsenic at High Pressures. 
I. V. Berman and N. B. Brandt

A. I. Vainshtein and B. L. Ioffe

Bound Polaron and Phonon States. 
V. I. Mel'nikov and E. I. Rashba

Paramagnetic Absorption of Ultrasound (US) by Conduction Electrons in a Quantizing Magnetic Field. 
P. S. Zyryanov, V. I. Okulov, V. P. Silin

Plasma Diffusion in Stellarators. 
B. B. Kadomtsev and O. P. Pogutse

Determination of the Level Widths of Gas Molecules by the Photon-echo Method. 
A. I. Aleksandrov and I. V. Evseev

Available From The American Institute of Physics
## CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Banana&quot; Self Focusing of Beams</td>
<td>71</td>
</tr>
<tr>
<td>G. A. Aslan'yan and V. S. Scheglov</td>
<td>113</td>
</tr>
<tr>
<td>Concerning the Fermi Surface of Niobium</td>
<td>74</td>
</tr>
<tr>
<td>N. E. Alekseevskii, K. S. Bortel', A. V. Dubrovin</td>
<td>116</td>
</tr>
<tr>
<td>Critical Fields and Structure of Ion-acoustic Instability of the Plasma of an Induction High-frequency Discharge in H₂, Ar, and He in a Magnetic Field</td>
<td>75</td>
</tr>
<tr>
<td>V. L. V'etvin, V. D. Rusanov, D. A. Frank-Kamenetskii</td>
<td>120</td>
</tr>
<tr>
<td>Hall Coefficients of Ferromagnets in the Pařeprocess Region.</td>
<td>76</td>
</tr>
<tr>
<td>T. N. Igoshova</td>
<td>125</td>
</tr>
<tr>
<td>Ion Heating in the Tokamak-3 Setup</td>
<td>82</td>
</tr>
<tr>
<td>L. A. Artshimovich, A. M. Anashin, E. P. Gorbunov, D. P. Ivanov, M. P. Petrov, V. S. Strelov</td>
<td>130</td>
</tr>
<tr>
<td>Excitation of Autoionization States of Alkali-metal Atoms in Slow Collisions with Inert-gas Atoms</td>
<td>85</td>
</tr>
<tr>
<td>V. I. Ogurtsov and Yu. F. Bydin</td>
<td>134</td>
</tr>
<tr>
<td>Gravitational Effect in Interference Spectra of the Fine Structure of the Rayleigh Line</td>
<td>87</td>
</tr>
<tr>
<td>I. M. Aref'ev and N. V. Shilin</td>
<td>138</td>
</tr>
<tr>
<td>Longitudinal Distances in Gamma Quantum Scattering and Asymptotic Electron-production Cross Sections</td>
<td>90</td>
</tr>
<tr>
<td>B. L. Ioffe</td>
<td>143</td>
</tr>
<tr>
<td>Raman Scattering of an Electromagnetic Wave of Frequency much Lower than the Characteristic Transition Frequency in Semiconductors</td>
<td>92</td>
</tr>
<tr>
<td>V. M. Genkin, G. M. Genkin, V. V. Zil'berberg</td>
<td>147</td>
</tr>
<tr>
<td>The Process γγ → ππ in the Veneziano Model and the Possibility of Its Study in the Reactions π → 2π in the Coulomb Field of Nuclei</td>
<td>95</td>
</tr>
<tr>
<td>G. S. Iroshnikov, Yu. P. Nikitin, A. S. Chernov</td>
<td>150</td>
</tr>
<tr>
<td>Phasing of the Spectrum and Short Light Pulses in Stimulated Raman Scattering</td>
<td>98</td>
</tr>
<tr>
<td>T. I. Kuznetsova</td>
<td>153</td>
</tr>
</tbody>
</table>

Available From The American Institute of Physics
Decomposition of Kingsbip phosphorite by sulfuric acid — M. E. Elzin, D. P. Zhukov, and A. A. Streltsov
Equilibrium between nitrogen oxides and nitric and phosphoric acid solutions
— L. Ya. Tereshchenko, A. N. Servov, V. V. Zubov, and I. I. Orlokov
Mineralogical structure changes in dunite on heating — P. P. Badunov, L. B. Kharoshkina, V. M. Perpelitsin, V. M. Ustyanitslav, and E. P. Koselapova
Production of red ferric oxide pigment from ferrous sulfate — K. Polianszy
Phase changes in hydrochemical decomposition of nepheline — A. A. Shipov, V. S. Sazhin, Yu. G. Fedorenko, and O. I. Shor
Investigation of the influence of the Al2O3/SiO2 ratio in the raw material on the physicochemical properties of self-crumbling calcium aluminate structures — N. I. Eremin, V. P. Kochezhinskaya, and V. A. Mazel
Purification of cesium chlorate, bromate, and iodate by crystallization from aqueous solutions — R. M. Shilovskaya, A. I. Vulikh, and S. I. Romanova
The metastable phase in the system CaH2PO4·H2O + CaSO4·2H2O at 25 and 80°C (in relation to processes of superphosphate manufacture) — E. I. Amashidze and S. Ya. Shpunt
Physicochemical properties of saturated solutions in the system CO(NH2)2-Mg(NO3)2-H2O and of the coordination compounds Mg(NO3)2·2CO(NH2)2·6H2O and Mg(NO3)2·4CO(NH2)2·H2O — I. N. Grynevchov, G. P. Protosenko, and P. I. Protosenko
Mechanism of iron removal from water by filtration — V. I. Stankevichuk
Three factors determining the action of liquid on solid metals — V. I. Nikitin
Amperometric study of the kinetics of reduction of potassium dichromate by ferrous sulfate — L. M. Pozin and V. L. Kheifets
Oscillographic study of the chromium plating process — I. A. Belzerov and K. P. Batashev
Mechanism of electrochemical reactions of a zinc electrode in an air atmosphere — M. V. Zvereva
Corrosion activity of a chlorinated aqueous solution of calcium lignosulfonate — P. P. Gertsen and N. L. Suboshova
Reversibility of the oxide (hydroxide) process in copper electrodes of the powder type in nickel solutions — V. A. Plotnikov and V. N. Frolov
Anodic dissolution of 1 cm3 Ni 0 Ti steel in inhibited solutions — V. P. Grigoriev and I. M. Gershavov
Contents

(Continued)

Countercurrent Extraction from Solid Materials — J. Srinivasa and Z. Krysky ........... 311
Course of a Reversible Isothermal Reaction of the First Order on Rhodium Catalyzed Medium — E. P. Prosko'yev .................. 324
Investigation of Filtration in a Moving Porous Medium — G. M. Rudin ............ 326
Yu. M. Filipov .......................... 326
Structure of the Liquid Flow in a Sintered Plate — V. V. Kafarov, V. V. Shchegolev, and V. M. Gerasimov .......... 334
Preparation of Methylated Carboxyls from Phenol—Formaldehyde Resin and Investigation of Their Properties — V. M. Fkhelnov and T. G. Plachenov ....... 340
Changes in the Porous Structure and Adsorption Properties of Granulated Ladlmills as the Result of Acid Treatment — V. Kh. Babushkin, G. M. Belotelov, O. A. Karde'skaya, and T. G. Plachenov ........... 344
Radial Analysis of the Phosphoric Acid Cation Exchangers SP-1 and KP-1 — V. N. Skabirova, T. K. Kuzin, and A. M. Semushkin .......................... 349
Hydrodynamics of a Fluidized 1X—Exchange Resin Bed during Sorption from Viscous Solutions — I. S. Tkachev, N. E. Rizoven, M. M. Yudin, and N. A. Glotovskii ........... 354
The Role of Alkaline Substituents in the Vulcanizing Action of Sulfenamide Derivatives — 2-Mercaptobenzotriazole — M. S. Fedoseyev, L. G. Beskin, and E. N. Gurlkova ........... 362
Oxidation of Synthetic Fatty Acids of the C11—C18 Fraction — V. A. Troskaryants, V. G. Sibef', and I. D. Afanas'ev ........... 366
Analysis of Methylphosphonate Esters by Ion Exchange Chromatography — A. N. Beresnev, and T. E. Vlasova ......... 370
Preparation of Thin Films from Monodentamum Phosphate Solutions by Electrophoresis — A. I. Avgustinsk, V. P. Alekseev, and G. I. Zhuravlev ........... 382
Hydrogenation of Ti—Al and Ti—Cr Alloys — Yu. G. Olesov, A. N. Rubtsov, and V. P. Glushkov ........... 395
Deposition of Thin Films from Monodentamum Phosphate Solutions by Electrophoresis — A. I. Avgustinsk, V. P. Alekseev, and G. I. Zhuravlev ........... 396
Extraction of Ammonium Thiocyanate from Solutions in Cyclohexane — B. L. Moskvin, and G. I. Skabrovskaya .. 392
Preparation of Thin Films from Monodentamum Phosphate Solutions by Electrophoresis — A. I. Avgustinsk, V. P. Alekseev, and G. I. Zhuravlev ........... 396
Method for Assessment of the Degree of Reduction of Nickel Oxides and Silicates — D. P. Bogatskii ........... 403

Available From Consultants Bureau

- 234 -
Adsorption Kinetics in Fluidized Zeolite Beds — V. A. Astakhov, P. G. Elizarenkov, V. I. Dalken, and R. A. Mozhukhin

Equilibrium Distribution of Urea between Liquid and Vapor in the Urea-Water System — V. I. Kucheryavyy, G. N. Zinovev, and L. K. Staniukova

Two Cases of Evaporation of a Drop in a Stream of Hot Gas — B. S. Kataniuk and M. K. Likht

Mechanism of Water Flow through Cellulose Membranes — V. D. Vdovin, A. N. Filatovskii, and A. N. Plamovskii

Preparation of Hydroxylanes with the Aid of Sodium Aluminum Hexachloride — L. M. Antipin, E. S. Sobolev, and V. F. Myronov

Synthesis of Chloroethyl Ethers from Individual and Synthetic C_4—C_9 Alcohols — O. P. Korenkova and V. A. Latsenko

Phase Diagram of the Ternary System 1,2-Menthol-2,3-Neomenthol-4,4-Neomenthol — N. I. Gel’perin, N. X. Zelenetskii, and M. Sh. Dzhashashvili

Extraction Purification of Acrylamide — V. V. Polikanov, R. M. Lagacheva, A. M. Lebedeva, V. I. Latchovitskii, and V. L. Karpov

Purification of Benzene from Low-Temperature Carbonization by Destructive Hydrogenation — E. I. Ebert, Ya. R. Katsbashvili, and V. A. Titushkin

Pulse-Polarographic Behavior of Methyl Pyrocaine — Kh. Sh. Bieronov and R. L. Shil’deotto

Directional Crystallization of Carbon Tetrachloride — T. S. Buchenkova, S. I. Vekshin, and G. M. Kuryumnov

Condensation of Chloroprene with Formaldehyde in Presence of KU-2 Cation Exchange Resin — V. I. Isagulyants and T. G. Khaimova

Zone Refining of 3,5-Dipropyl-1-ethylpyrazole — G. M. Kuryumnov, T. Yu. Smirnov, and G. V. Ivanov

Additional Information on the Coumarin Composition of Prangos Pezushchenkoi (Umbelliferae) Korob, P. Tschimgani and B. Fedorov, and P. Isphatramica B. Fedorov


By-Product Formation during Production of Cyuriac Acid from Urea — N. P. Shul’gin, and A. I. Finkel’shtein

Mobility of Water Sorbed by Cellulose Acetates of Different Degrees of Substitution — E. I. Shul’gin and E. A. Abramova

BOOK REVIEWS

V. I. Kuznetsov. Evolution of Concepts of the Fundamental Laws of Chemistry — Reviewed by V. V. Razumovskii and V. P. Shishokin

The Russian press date (podpisano k pechati) of this issue was 2/15/1969. Publication therefore did not occur prior to this date, but must be assumed to have taken place reasonably soon thereafter.

Available From Consultants Bureau
CONTENTS

Engl./Russ.

Interaction of Kingsnapp Phosphorite with Wet-Process Phosphoric Acid — D. F. Zhiltsova, M. E. Pozhitkov, and G. S. Odinetsova ........................................ 453


Chemical Investigation of Thermal Conversions of Kaolin — N. I. Kremen and M. I. Erusimskii ................................................................. 467


Influence of Addition of Macromolecular Compounds on the Properties of Suspensions of Alkaline-Earth Oxides — I. S. Lavrov and V. I. Panov .................................................. 476

Sorption of Germanium from Solutions on Ion Exchange Resins — D. Ya. Zvyagin and A. P. Kostyuk ................................................................. 482

Purification of Alkali-Metal Iodides by Active Carbons — I. A. Kuzin, B. D. Steina, V. P. Tauskhianov, A. N. Mironov, and S. P. Andrianov .................................................. 484


Stability of Anion Exchangers AM, AMP, and VP-1A in Solutions of Mineral Acids and Alkalies — B. N. Laskorin, L. I. Vodolazov, and L. M. Stepanov .................................................. 496

Concentration of Aqueous Solutions by Electroanalysis — M. V. Shevchenko, V. K. Varentsov, and N. P. Gousin .................................................. 503

Influence of Finely Divided Silica Binder on Adsorption of Benzene by Mordenite Crystals — V. Kh. Dobruskin, G. M. Belotserkovskii, and T. G. Pinchoven .................................................. 508

Chemical Interaction of Acetamide with Copper Sulfate and Chloride in Aqueous Solution at 25°C — N. V. Saleeva, M. K. Kudryavtsev, and B. I. Iamandinov .................................................. 511

Solubility in the System Li2SO4—(KII)2SO4—Al2(SO4)3—H2O at 75°C — B. N. Laskorin and V. G. Shevchuk .................................................. 515

Liquid—Vapor and Liquid—Liquid Equilibrium in the System Ac—Dimethylformamide—1,3—


Approximate Estimation of Throwing Power with Respect to a Metal — N. P. Gousin and A. I. Mashai .................................................. 530

Preparation of Highly Disperse Powders through the Aerosol State — A. G. Nigmatullin and N. A. Yaks ................................. 534

(Contd)

Electrochemical Properties of Ion Exchange Membranes in Relation to the Preparation of Selective Membranes — V. P. Grabovskii, M. V. Petrunskaya, and N. P. Chernomordikov

Manganese Oxydation Reactions — V. V. Znaev, M. M. Kostrokov, and A. A. Khasanov

Electrical Resistances of Solid and Liquid Metal Alloys — B. A. Rozan, Yu. N. Malyshkov, and P. V. Mironov

Dependence of the Electrochemical Mechanism of Hydrolysis in an Aqueous Solution on Electrolyte Composition — G. A. Vaynshtajn and N. S. Daniliev

Stability of Sodium and Potassium in NaOH—KOH, NaCl—KCl, and NaOH—KOH—NaCl—KCl

Molten Systems — A. I. Morachevskii and L. I. Brenerkov


Micromechanics of Adhesion in Countercurrent Column Apparatuses with a Fluidised Adsorbent - D. I. Kuznetsov, V. S. Lepshch, and T. I. Kozlova

Refrain of Bubbling through Packing — N. P. Levsh, V. N. Malysh, and V. A. Nianov

Dependence of Equilibrium Pressure in the System NH₃—CO₂—CC(NH₂)₂—H₂O (Gas—Liquid) on the Temperature, Autoclave Charge Density, and NH₃—CO₂ Ratio in the Original Component Mixture — V. I. Kuznetsov, D. M. Gordievskii, and E. V. Polyakov

Investigation of Metal Refining by Rectification — V. N. Chernogorov

Approximate Method of Calculating Column Efficiencies in Binary and Multicomponent Rectification — V. V. Popov

Production of Acetone by Electrocracking of Natural Gas in a Coaxial Reactor — D. T. Rabina, V. I. Malysh, B. A. Uryakov, and A. P. Efron


Drying in Bulbs in Crum Form — D. M. Levin and I. I. Borisev

Synthesis of Xyloamides — N. V. Domanovtsev, B. F. Gurskis, M. I. Karasar, and L. M. Malyshkov


BRIEF COMMUNICATIONS

Sixth All-Union Conference on the Technology of Inorganic Materials and Mineral Fertilizers — V. I. Varshavskii

Mechanism of Sodium Fluoride Formation during Decomposition of Sodium Fluoride by Sodium Carbonate — A. S. Korashtin, G. N. Bokshayaev, and D. F. Il'in


Preparation of Pure Magnesium and Zine Fluorides — G. A. Lopatkin

On the Use of Sodium Nitrosothiocyanates — A. I. Slepenko, O. S. Dikunov, and Yu. M. Kuznetsov

Influence of Various Metals of High Melting Points — A. I. Avgustinskii

Zinc, and Z. A. Mokhov

Behavior of Iron and Copper Impurities during Zone Refining of Indium iodide — P. I. Fedorov, A. G. Dudareva, and G. K. Guryacheva

(Continued)
Interaction of Utride Ti, V, Nb, and Ta Carbides with HCl — Yu. S. Zaumlevich
S. I. Alyamovskii, G. P. Shvedov, E. M. Shelepunskii, and D. V. Fedorov

Solubility Diagram of the Ternary System MnSO₄₅Na₂SO₄·H₂O Satuated with Sodium Chloride — V. Ya. Noskov and
N. L. Yarem-Agaiev

The Relation Between Temperature, Density, and Water Content of Borax Solutions of the
System K₂Na₃CO₃·H₂O Saturated with Sodium Chloride — V. Ya. Noskov and
N. L. Yarem-Agaiev

Phase Equilibrium in the System H₂—CO₂—B. M. Fedrin and Ya. Ter-Shavvets

Study of Solubility in the System Mn(CH₃COO)₂·2H₂O—CH₃COOH—H₂O at 20°C — N. V. Dylyava,
D. M. Korf, and V. I. Nikolaeva

Interaction of Sodium with Melts of the Systems NaCl—CaCl₂ and NaCl—CaCl₂—BaCl₂
— E. I. Adaev, A. G. Morachevskii, and L. M. Antipova

Inhibitor Properties of Nitrites of the Alkali Metals and Thiourea — P. I. Pestenko


Electrochemical Reduction of Carbon Dioxide at Zinc and Cadmium Electrodes
— V. V. Kesarev and V. F. Fedortsov

Differential Equation for Nonsteady State Mass Transfer in a Weakly Rarefied Fluctuation-
Capacity Medium — R. Z. Russ Aliev, P. G. Romankov, and A. A. Makarov

Influence of Heat Treatment on the Supramolecular Structure of Wood Cellulose
— N. Ya. Solechnik and A. A. El'bert

Preparation of Triuret from Urea — R. I. Spasskaya

Preparation of Modified Lignin Charcoals and Investigation of Their Properties
— V. M. Fal'chuk and T. G. Plachenov

Synthesis of Phenylisopropyl Vinyl Ether from Phenylisopropyl Alcohol and Acrylonitrile
— V. P. Pivnenko

Determination of the Integral Heats of Interaction of Cotton Cellulose with Various Liquids
— S. A. Kuvshinnikova, A. E. Bernardelli, K. P. Mishchenko, S. I. Talmad, and
T. A. Tumanova

Coumarins from the Roots and Fruits of Prangos Bucharica F. Fecsh.
— G. A. Kuznetsova, L. M. Belenovskaya, and L. V. Kuz'mina

BOOK REVIEWS

Bibliography of Soviet Bibliography on Chemistry and Chemical Technology (1917—1965).
Compiled by E. A. Molodtsova, R. L. Baldaev, N. A. Nikforovskaya, Z. K. Novak,
Z. A. Panova, and A. A. Strel'nikova

I. I. Korov'ev. Percolation Hydrolysis of Vegetable Matertials
— Reviewed by D. V. Zhelukhin

The Russian press date (podpisano k pech'3) of this issue was 3/20/1969
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available from Consultants Bureau
# Soviet Physics

## TECHNICAL PHYSICS

A Translation of "Zhurnal Tekhnicheskoi Fiziki"


Vol. 14, No. 3, pp. 307-446

September, 1969

## CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oscillations of a Weakly Ionized Collisional Plasma</td>
<td>307</td>
</tr>
<tr>
<td>Stabilization of Axially Symmetric Perturbations of a Conducting Fluid by a Distributed Automatic-Control System</td>
<td>310</td>
</tr>
<tr>
<td>Current Convective Instability of a Weakly Ionized Plasma in the Pressure of a Feedback</td>
<td>315</td>
</tr>
<tr>
<td>Pulsed Discharges in Dielectric Chambers</td>
<td>318</td>
</tr>
<tr>
<td>Braking and Purification of a Plasma Jet by a Rapidly Increasing Magnetic Field</td>
<td>322</td>
</tr>
<tr>
<td>Tangential Injection of Plasma into a Toroidal Magnetic Field</td>
<td>327</td>
</tr>
<tr>
<td>Study of an Oscillatory Electron-Ion Discharge in a Longitudinal Magnetic Field</td>
<td>337</td>
</tr>
<tr>
<td>Erosion Electrodynamic Plasma Accelerator with Relative Energy Storage</td>
<td>338</td>
</tr>
<tr>
<td>Interaction of Microwave Oscillations and Low-Frequency Oscillations in a Beam-Plasma System</td>
<td>343</td>
</tr>
<tr>
<td>Determination of Local Plasma Parameters by Absorption Measurements on a Refracted Microwave Beam</td>
<td>346</td>
</tr>
<tr>
<td>Effect of Refraction on the Interferometric Measurements of Electron Density</td>
<td>354</td>
</tr>
<tr>
<td>Fields in Complex Waveguide Combinations</td>
<td>357</td>
</tr>
<tr>
<td>Calibration of Tracking Electros in Proton Synchrotrons</td>
<td>363</td>
</tr>
<tr>
<td>Measurement of Phase Distribution in a Travelling-Wave Linear Accelerator</td>
<td>366</td>
</tr>
</tbody>
</table>

Available From The American Institute of Physics

Vol 14, No 3, Sept 1969

(Contd)
High-Current Electron Beam in a Linear Induction Accelerator.

Yu. P. Vakhushin and V. S. Tumanov ........................................ (T) 274

Modes and Threshold Conditions in a Three-Mirror Resonator. V. I. Perel

and I. V. Kopyst .......................................................... (T) 372

Transient Characteristics of a Laser with Modulated Resonator Parameters.

L. N. Mogilev ............................................................. (T) 392

Line Shape and Dip Width in the Gain Curve of a He–Ne Laser; the

Wavelength of 0.63 μ. S. A. Gomchukov, G. A. Mikhailov,

E. D. Protosenko, and A. I. Tsimakov ....................................... (E/T) 397

Pyroelectrically Excited Quasi-CW Laser. A. A. Kaminskii, A. I. Podreetskii,

and S. I. Levitov ............................................................. (E) 495

A Method for the Simultaneous Investigation of the Transmission, Reflection,

and Absorption of Inert Gas Ions in Thin Solid Films. A. Ya. Vyatskin,

K. A. Makarov, and V. V. Alekseev ........................................... (E) 503

Interaction of He+ Ions with Certain Metals. A. Ya. Vyatskin, V. V. Alekseev,

and K. A. Makarov ............................................................ (E) 503

Investigation of Transmission, Reflection, and Absorption of He+ Ions in

Semiconductors Films. A. Ya. Vyatskin, K. A. Makarov,

and V. V. Alekseev ........................................................... (T) 513

Theory of the Electrode Sheath in a Low-Temperature Plasma. F. G. Baskin,

B. Ya. Mozhys, and V. A. Natskhinskii ....................................... (T) 517

Cryosorption Pumping in the Range 760 torr to Ultrahigh Vacuum.

P. M. Kobzey, Yu. V. Kholod, and V. B. Yuferov ................................... (E) 424

Pumping of Helium by Condensed Layers of Gases in the Pressure Range

10⁻³ to 10⁻¹³ torr. V. B. Yuferov and P. M. Kobzey .............................. (E) 427

Determination of Potential Parameters from Viscosity. B. A. Vakhin,

P. E. Semyin, and A. S. Vakhlov ............................................... (E) 427

Determination of the Amount of Gas Transported by Hydrodynamic Flow in

Interdiffusion. N. D. Kozov and Z. I. Novosad ................................ (E) 435

BRIEF COMMUNICATIONS

Interaction of a Rotating Electron Beam with Asymmetric Modes in a

Magnetized-Plasma Waveguide. N. Ya. Kotsarenko and A. N. Fedorchenko ........ (T) 472

Photodesorption of OH Radicals from a ZnO Surface Containing Adsorbed

Water. A. A. Lisachenko and F. I. Vilchsov ...................................... (E) 412

Available From The American Institute of Physics

Vol 14, No 3, Sept 1969

- 240 -
CONTENTS

Exact Solutions of Certain Problems in Nonlinear Electrodynamics. V. M. Fomin .............................................. (T) 447 552

Nonlinear Waves in a Three-Component Plasma. A. D. Pataraya and D. S. Adzhibekov ........................................ (T) 453 602

Solitary Waves in a Three-Component Collisionless Plasma. A. D. Pataraya .................................................. (T) 456 607

Excitation of Plasma Waves near the Lower Hybrid Resonance. O. M. Shvetz, B. M. Sushkov, V. F. Tarsanenko, and S. S. Ovchinnikov .................................................. (E/T) 459 610

Afterglow Diffusion in Various Gases. V. V. Bulanin, A. P. Zhiltovskii, and V. I. Smirnov ........................................ (E/T) 464 617

Ionized Scattering of Quasi-Longitudinal Cyclotron Waves in a Plasma. A. P. Kropotkin and N. V. Sholokhov .................. (T) 472 628

Investigation of Plasma Compression Using Microwave Reflection. V. A. Ipatoev, M. G. Kaganovskii, S. G. Kalyuzhnyi, and V. A. Ovsyanikhov .................................................. (E) 479 638

Anomalous Diffusion in a Collisional Plasma in a Magnetic Field. A. M. Fridman .................................................. (T) 484 641

Plasma Induction Source with Reduced Impurity Content, II. I. A. Kossyi and I. S. Shpigel' ........................................ (E) 486 647

Limiting Velocity of Plasmoids in Electrodynamic Accelerators. V. N. Grigorev'ev .................................................. (T) 491 653

Velocity of Plasma Inhomogeneities in Crossed Electric and Magnetic Fields. I. B. Chokmarov, S. I. Rozov, and F. M. Droshayevskii .................................................. (T) 496 660

Emission of Energetic Ions from a Penning Discharge in an Inhomogeneous Magnetic Field. R. A. Demirhanov, Yu. V. Kursanov, and L. P. Skripal' .................................................. (E) 500 666


Interfered Pulsed Magnetic Fields in Reinforced Multiturn Coils. E. S. Borovik, A. G. Limar', and Yu. A. Litvinenko ..... (E/T) 510 678

Vacuum Hydrogen Jet from a Supersonic Nozzle. G. I. Dimov .................................................. (E) 512 681


Available from The American Institute of Physics
"Vol 11, No 1, Oct 1969"
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge in a Penning Tube and in a Cylindrical Magnetron at Low Pressures</td>
<td>694</td>
</tr>
<tr>
<td>Atomic-Beam Focussing in a Hexapole Magnetic System with Spherical Aberration</td>
<td>704</td>
</tr>
<tr>
<td>Work Function of Molybdenum-Ithapum Alloys</td>
<td>E. M. Savitskil, I. V. Baran, and L. N. Lityak</td>
</tr>
<tr>
<td>Heat of Particle Desorption from a Metal Surface in an Electric Field</td>
<td>716</td>
</tr>
<tr>
<td>Surface Ionization, Evaporation, and Desorption of Ions in an Electric Field</td>
<td>721</td>
</tr>
<tr>
<td>Evaporation Rates of Carbide-Thermionic Cathodes and Estimates of Operating Temperatures</td>
<td>725</td>
</tr>
<tr>
<td>Time for Production of a Discharge</td>
<td>V. M. Kirilov</td>
</tr>
<tr>
<td>Growth of a Spark Discharge in a Wide Air Gap</td>
<td>G. N. Mekabrov</td>
</tr>
<tr>
<td>Two-Dimensional Flow of a Maxwellian Gas</td>
<td>B. T. Porodoy and V. E. Sud'ko</td>
</tr>
<tr>
<td>Transport Properties of Gaseous Saturated Hydrocarbons</td>
<td>Yu. T. Mesyenko</td>
</tr>
</tbody>
</table>

**BRIEF COMMUNICATIONS**

- **Method for Confinement of Electrons in Closed Systems.** B. P. Peregud
  - (E) 760
- **Effect of Discharge Fluctuations on the Output of a Laser.** A. A. Zaitsev,
  - V. F. Malakhov, I. A. Savchenko, and B. N. Shvilkin
  - (E) 764
- **Possible Charge Separation in a Plasma by Recombination Reaction.**
  - A. Ya. Voronov
  - (E) 770

*Available From The American Institute of Physics Vol 14, No 4, Oct 1969*
INDEX TO AUTHORS

This Index does not include authors listed in the cover-to-cover
tables of contents.

- A -

Abdissalam, Said 33
Abraham, M. 119
Accini, F. 110
Actarian, Virgil 20
Aczel, Gyorgy 124
Adam, Alexis 43
Adamec, Jiri 17
Adler, F. 91
Adlershteyn, L. Ts. 98
Afrikantov, I. I. 109
Aganbegyan, A. 7
Agati, G. 63
Agelao, G. 66
Ahnelt, Ota 17
Aiello, Paolo 110
Akashe, Bahram 71
Akimov, V. A. 57
Akira Fujita 110
Aksenova, N. D. 13
Aksetsev, S. L. 55
Alaverdyan, P. 76
Aladyev, I. T. 77
Alayev, B. S. 80
Alczer de la Riva, Jose Luis 44
Aleksandrianskaya, A. V. 57
Aleksandrov, V. N. 65
Aleksandrov, Yu. 5
Alekseyev, B. V. 115
Alekseyev, P. G. 81
Alekseyev, N. 95
Alekseyev, V. I. 116
Alekseyeva, Ye. G. 55
Aleksic, Dragoljub 27
Aleksiyev, Dobri 16
Aleshin, V. D. 64
Alexe, Ilie 21
Aleyev, N. 47
Ali-Zade, M. 8
Almasan, Bujor 21
Alnazov, O. A. 115
Alverny, R. 85
Alyavin, V. A. 78
Amann, E. 62
Ambartsoumyan, V. A. 51
Amendola, Giorgio 29
Amirkhanov, I. V. 94

Ananie, Mihai 72
Ananilyan, L. 97
Anastasevich, V. S. 109
Anatyuchk, L. I. 117
Anchugova, R. A. 53
Andreyev, D. Ya. 3
Andreyev, K. K. 14
Andreyev, V. B. 94
Andreyev, V. N. 69
Andreyeva, I. O. 81
Andriyevskiy, R. A. 116
Andryanov, V. A. 52
Andryukhina, Ye. N. 72
Andrzejewski, Jerzy 48
Anger, M. 100
Anhaus, H. 75
Anis, Muhammad 34
Anisimov, A. I. 111,112
Anisimov, I. 13
Ann, M. 110
Anokhin, P. K. 55
Antakov, I. I. 74
Antal, Laszlo 18
Antoine, L. 85
Antoine, Louis 101
Antonova, Ye. A. 82
Antsiferov, V. K. 98
Aparin, N. 6
Ardab'yevskiy, A. I. 73
Arifov, T. U. 116
Arismendi, Rodney 43
Arkhipov, V. 11
Arnautov, L. 97
Artei, P. 89
Artyukhina, T. V. 54
Ashkerov, V. P. 14
Askaryan, G. A. 116
Astakhov, I. V. 120
Astapovich, I. S. 51
Atlas, Z. V. 7
Avarbe, R. C. 79
Avetisyan, A. S. 120
Avramov, Luchezar 16
Avramova, Mariana 16
Axentowicz, Marek 103
Ayvazov, A. B. 80
Ayyad, Abu 34
Ayzerman, M. A. 54
Azemar, H. 85

- 243 -
<table>
<thead>
<tr>
<th>Nombre y Apellido</th>
<th>Páginas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabrera, Berta</td>
<td>41</td>
</tr>
<tr>
<td>Caithaml, Roman</td>
<td>46</td>
</tr>
<tr>
<td>Caldera, P. G.</td>
<td>66</td>
</tr>
<tr>
<td>Caraion, Ion</td>
<td>28</td>
</tr>
<tr>
<td>Carias, German</td>
<td>43</td>
</tr>
<tr>
<td>Carmona, Augusto A.</td>
<td>44</td>
</tr>
<tr>
<td>Caruso, P.</td>
<td>91</td>
</tr>
<tr>
<td>Celada, J.</td>
<td>85</td>
</tr>
<tr>
<td>Cenacchi, G.</td>
<td>110</td>
</tr>
<tr>
<td>Copede, Michel</td>
<td>60</td>
</tr>
<tr>
<td>Corre, P.</td>
<td>110</td>
</tr>
<tr>
<td>Cerveny, E.</td>
<td>84</td>
</tr>
<tr>
<td>Chamel, A.</td>
<td>109</td>
</tr>
<tr>
<td>Chang, C.</td>
<td>66</td>
</tr>
<tr>
<td>Chaplygin, A. S.</td>
<td>32</td>
</tr>
<tr>
<td>Chariton, N.</td>
<td>60</td>
</tr>
<tr>
<td>Chetkovenadskiy, N. A.</td>
<td>56</td>
</tr>
<tr>
<td>Chetnikov, M. B.</td>
<td>115</td>
</tr>
<tr>
<td>Chekmanov, P.</td>
<td>89</td>
</tr>
<tr>
<td>Chen-Chong-sheng</td>
<td>70</td>
</tr>
<tr>
<td>Cheng, K.</td>
<td>46</td>
</tr>
<tr>
<td>Cheprakov, M.</td>
<td>107</td>
</tr>
<tr>
<td>Chepikov, Ye. N.</td>
<td>65</td>
</tr>
<tr>
<td>Chepikov, A. Y.</td>
<td>120</td>
</tr>
<tr>
<td>Chemtsovskiy, V. N.</td>
<td>56</td>
</tr>
<tr>
<td>Chernovskiy, V.</td>
<td></td>
</tr>
<tr>
<td>Cheshkov, Y. A.</td>
<td>113</td>
</tr>
<tr>
<td>Chi, Quan</td>
<td>38</td>
</tr>
<tr>
<td>Chi, Young-hung</td>
<td>56</td>
</tr>
<tr>
<td>Chibisov, S.</td>
<td>9</td>
</tr>
<tr>
<td>Chikhachev, A. S.</td>
<td>111</td>
</tr>
<tr>
<td>Chiola, J. P.</td>
<td>86</td>
</tr>
<tr>
<td>Chirakadze, A.</td>
<td>2</td>
</tr>
<tr>
<td>Chkhaidze, L. V.</td>
<td>55</td>
</tr>
<tr>
<td>Chmielewski, Marek</td>
<td>77</td>
</tr>
<tr>
<td>Choe Chil-nam</td>
<td>37</td>
</tr>
<tr>
<td>Chon In-ch'el</td>
<td>71</td>
</tr>
<tr>
<td>Chretien, J. F.</td>
<td>86</td>
</tr>
<tr>
<td>Christu, N.</td>
<td>67</td>
</tr>
<tr>
<td>Chistyakov, N.</td>
<td>82</td>
</tr>
<tr>
<td>Chudnova, L. B.</td>
<td>65</td>
</tr>
<tr>
<td>Chugunov, L. F.</td>
<td>69</td>
</tr>
<tr>
<td>Chumakov, M. P.</td>
<td>55</td>
</tr>
<tr>
<td>Chuyko, L.</td>
<td>11,12</td>
</tr>
<tr>
<td>Cidelakh, M.</td>
<td>99</td>
</tr>
<tr>
<td>Cignolini, A.</td>
<td>91</td>
</tr>
<tr>
<td>Cihal, V.</td>
<td>83,90</td>
</tr>
<tr>
<td>Cipek, Karel</td>
<td>17</td>
</tr>
<tr>
<td>Colletti, Lucio</td>
<td>29</td>
</tr>
<tr>
<td>Colombo, U.</td>
<td>85</td>
</tr>
<tr>
<td>Condylis, A.</td>
<td>85</td>
</tr>
<tr>
<td>Constant, A.</td>
<td>85</td>
</tr>
<tr>
<td>Constantinescu, N. N.</td>
<td>21</td>
</tr>
<tr>
<td>Contreras, Orlando</td>
<td>42</td>
</tr>
<tr>
<td>Country, Gabriiel</td>
<td>118</td>
</tr>
<tr>
<td>Courtois, G.</td>
<td>110</td>
</tr>
<tr>
<td>Courtois, H.</td>
<td>62</td>
</tr>
<tr>
<td>Crafti, A.</td>
<td>93</td>
</tr>
<tr>
<td>Crimi, Bruno</td>
<td>53, 63</td>
</tr>
<tr>
<td>Crisman, Mihail</td>
<td>20</td>
</tr>
<tr>
<td>Cristurcanu, Titus</td>
<td>21</td>
</tr>
<tr>
<td>Csillag, Istvan</td>
<td>19</td>
</tr>
<tr>
<td>Dahrowski, B.</td>
<td>63</td>
</tr>
<tr>
<td>Dahike, O.</td>
<td>91</td>
</tr>
<tr>
<td>Damjanovic, Radoslav</td>
<td>22</td>
</tr>
<tr>
<td>Danev, B.</td>
<td>94</td>
</tr>
<tr>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Dang Cia Tat</td>
<td>38</td>
</tr>
<tr>
<td>Do Van Quy</td>
<td>50</td>
</tr>
<tr>
<td>Doan Binh Ho</td>
<td>50</td>
</tr>
<tr>
<td>Dobrina, I. O.</td>
<td>42</td>
</tr>
<tr>
<td>Dobrescu, E.</td>
<td>42</td>
</tr>
<tr>
<td>Dobretsova, K. V.</td>
<td>42</td>
</tr>
<tr>
<td>Dobrilo, Ivan Eugen</td>
<td>42</td>
</tr>
<tr>
<td>Dobrov, O. M.</td>
<td>42</td>
</tr>
<tr>
<td>Dobrykh, L. I.</td>
<td>42</td>
</tr>
<tr>
<td>Dobonev, I. N.</td>
<td>42</td>
</tr>
<tr>
<td>Dobshel, Fritz</td>
<td>42</td>
</tr>
<tr>
<td>Dobrov, G. V.</td>
<td>42</td>
</tr>
<tr>
<td>Dolezal, V.</td>
<td>42</td>
</tr>
<tr>
<td>Dolginov, A. Z.</td>
<td>42</td>
</tr>
<tr>
<td>Dolgov, I.</td>
<td>42</td>
</tr>
<tr>
<td>Dolgovshin, A. P.</td>
<td>42</td>
</tr>
<tr>
<td>Doma, A.</td>
<td>42</td>
</tr>
<tr>
<td>Donskova, M. I.</td>
<td>42</td>
</tr>
<tr>
<td>Doriot, J. M.</td>
<td>42</td>
</tr>
<tr>
<td>Doroshchuk, V. Ye.</td>
<td>42</td>
</tr>
<tr>
<td>Drasech, K.</td>
<td>42</td>
</tr>
<tr>
<td>Draszyzk, Friedrich</td>
<td>42</td>
</tr>
<tr>
<td>Dritzler, K.</td>
<td>42</td>
</tr>
<tr>
<td>Drobnis, A.</td>
<td>42</td>
</tr>
<tr>
<td>Dronnik, L. M.</td>
<td>42</td>
</tr>
<tr>
<td>Drozdov, M.</td>
<td>42</td>
</tr>
<tr>
<td>Druzenko, A.</td>
<td>42</td>
</tr>
<tr>
<td>Dubovoi, L. V.</td>
<td>42</td>
</tr>
<tr>
<td>Dubovoi, P. F.</td>
<td>42</td>
</tr>
<tr>
<td>Dubsky, B.</td>
<td>42</td>
</tr>
<tr>
<td>Dudzinski, Wladyslaw</td>
<td>42</td>
</tr>
<tr>
<td>Dukhan, N. S.</td>
<td>42</td>
</tr>
<tr>
<td>Dukhovlinov, S. D.</td>
<td>42</td>
</tr>
<tr>
<td>Dumans'skiy, A. V.</td>
<td>42</td>
</tr>
<tr>
<td>Dumov, V. I.</td>
<td>42</td>
</tr>
<tr>
<td>Dunaj-Jurco, M.</td>
<td>42</td>
</tr>
<tr>
<td>Duna, Pedro</td>
<td>42</td>
</tr>
<tr>
<td>Duong Van Thieu</td>
<td>42</td>
</tr>
<tr>
<td>Dushkina, R. Z.</td>
<td>42</td>
</tr>
<tr>
<td>Dvernyakov, V. S.</td>
<td>42</td>
</tr>
<tr>
<td>Dvoarmik, Ivo</td>
<td>42</td>
</tr>
<tr>
<td>Dvulit, P. D.</td>
<td>42</td>
</tr>
<tr>
<td>D'yachenko, I.</td>
<td>42</td>
</tr>
<tr>
<td>Dynin, I.</td>
<td>42</td>
</tr>
<tr>
<td>Dyskin, V.</td>
<td>42</td>
</tr>
<tr>
<td>Dzhaugashtin, K. Ye.</td>
<td>42</td>
</tr>
<tr>
<td>Dzhaugashtin, Yu. Ye.</td>
<td>42</td>
</tr>
</tbody>
</table>

- E -

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echarry, Alfredo</td>
<td>45</td>
</tr>
<tr>
<td>Echterhoff, H.</td>
<td>45</td>
</tr>
<tr>
<td>Ehrmann, Juan</td>
<td>45</td>
</tr>
<tr>
<td>Elchhorn, E.</td>
<td>45</td>
</tr>
<tr>
<td>Elchhorn, F.</td>
<td>45</td>
</tr>
<tr>
<td>Eichhorn, B.</td>
<td>45</td>
</tr>
</tbody>
</table>

- 246 -
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emiko Konishi</td>
<td>106</td>
</tr>
<tr>
<td>Lindo, K.</td>
<td>88</td>
</tr>
<tr>
<td>Lindie, W.</td>
<td>84</td>
</tr>
<tr>
<td>Linel, K.</td>
<td>90</td>
</tr>
<tr>
<td>Eminov, Kiril</td>
<td>48</td>
</tr>
<tr>
<td>Lindley, Istvan</td>
<td>119</td>
</tr>
<tr>
<td>Faddev, V. C.</td>
<td>54</td>
</tr>
<tr>
<td>Fagnia, Hubert</td>
<td>32</td>
</tr>
<tr>
<td>Falk, Klaus P.</td>
<td>90</td>
</tr>
<tr>
<td>Fang, Chih-ch'eng</td>
<td>74</td>
</tr>
<tr>
<td>Faure, P.</td>
<td>118</td>
</tr>
<tr>
<td>Faye, Jean</td>
<td>46</td>
</tr>
<tr>
<td>Favnburg, C.</td>
<td>4</td>
</tr>
<tr>
<td>Fedorov, V. I.</td>
<td>111</td>
</tr>
<tr>
<td>Fedorova, I. P.</td>
<td>66</td>
</tr>
<tr>
<td>Fedorova, Ye. F.</td>
<td>66</td>
</tr>
<tr>
<td>Fedulov, V.</td>
<td>46</td>
</tr>
<tr>
<td>Fedyanov, V. P.</td>
<td>114</td>
</tr>
<tr>
<td>Fedyanin, O. I.</td>
<td>7</td>
</tr>
<tr>
<td>Fedyuk, V.</td>
<td>3</td>
</tr>
<tr>
<td>Feiknecht, W.</td>
<td>67</td>
</tr>
<tr>
<td>Felix, Leon</td>
<td>29</td>
</tr>
<tr>
<td>Felix, D.</td>
<td>61</td>
</tr>
<tr>
<td>Felix, J.</td>
<td>74</td>
</tr>
<tr>
<td>Felcht, K.</td>
<td>90</td>
</tr>
<tr>
<td>Feng, Pao-Pen</td>
<td>74</td>
</tr>
<tr>
<td>Feniksova, R. V.</td>
<td>54, 56</td>
</tr>
<tr>
<td>Fer, A.</td>
<td>66</td>
</tr>
<tr>
<td>Fernandez Rodrigues,</td>
<td></td>
</tr>
<tr>
<td>Roberto</td>
<td>72</td>
</tr>
<tr>
<td>Fernandez, David</td>
<td>41</td>
</tr>
<tr>
<td>Fernandez, Lorenzo</td>
<td>42</td>
</tr>
<tr>
<td>Fernandez, Tony</td>
<td>105, 123</td>
</tr>
<tr>
<td>Ferro, A.</td>
<td>91</td>
</tr>
<tr>
<td>Feuillet, Claude</td>
<td>33</td>
</tr>
<tr>
<td>Fiala, J.</td>
<td>83</td>
</tr>
<tr>
<td>Filchakov, P. F.</td>
<td>94</td>
</tr>
<tr>
<td>Fil'chenko, L.</td>
<td>13</td>
</tr>
<tr>
<td>Filimonov, A.</td>
<td>14</td>
</tr>
<tr>
<td>Filipi, Lojze</td>
<td>28</td>
</tr>
<tr>
<td>Fischeder, W.</td>
<td>119</td>
</tr>
<tr>
<td>Fischer, H.</td>
<td>66</td>
</tr>
<tr>
<td>Fischer, W. A.</td>
<td>86</td>
</tr>
<tr>
<td>Flaksenman, Yu. N.</td>
<td>76</td>
</tr>
<tr>
<td>Flerov, G. N</td>
<td>109</td>
</tr>
<tr>
<td>Florea, Constantin</td>
<td>26</td>
</tr>
<tr>
<td>Foldi, Laszlo</td>
<td>18</td>
</tr>
<tr>
<td>Foltyn, M.</td>
<td>83</td>
</tr>
<tr>
<td>Fomenko, W.</td>
<td>9</td>
</tr>
<tr>
<td>Forster, E.</td>
<td>87</td>
</tr>
<tr>
<td>Fourcy, A.</td>
<td>66</td>
</tr>
<tr>
<td>Fournier, Gerard</td>
<td>118</td>
</tr>
<tr>
<td>Frank, Uriel</td>
<td>117</td>
</tr>
<tr>
<td>Francov, Claude</td>
<td>118</td>
</tr>
<tr>
<td>Frank, T. M.</td>
<td>112</td>
</tr>
<tr>
<td>Fratini, L.</td>
<td>91</td>
</tr>
<tr>
<td>Freze, V. L.</td>
<td>36</td>
</tr>
<tr>
<td>Frid, L. M.</td>
<td>75</td>
</tr>
<tr>
<td>Friez, Ph. L.</td>
<td>81</td>
</tr>
<tr>
<td>Friese, Juergen</td>
<td>26</td>
</tr>
<tr>
<td>Fritzche, C.</td>
<td>88</td>
</tr>
<tr>
<td>Frolova, Ye. N.</td>
<td>5</td>
</tr>
<tr>
<td>Frowein, R. A.</td>
<td>61, 62</td>
</tr>
<tr>
<td>Funke, P.</td>
<td>89</td>
</tr>
<tr>
<td>Fykal, Ye. L.</td>
<td>51, 107</td>
</tr>
</tbody>
</table>

- G -

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabillard, Robert</td>
<td>108</td>
</tr>
<tr>
<td>Gagnaire, J.</td>
<td>109</td>
</tr>
<tr>
<td>Calaktimov, B. V.</td>
<td>111</td>
</tr>
<tr>
<td>Galan, Luis Carlos S.</td>
<td>41</td>
</tr>
<tr>
<td>Galienko, N. P.</td>
<td>65</td>
</tr>
<tr>
<td>Gammeltoft, S. A.</td>
<td>64</td>
</tr>
<tr>
<td>Gandurin, I.</td>
<td>6</td>
</tr>
<tr>
<td>Ganelin, D. N.</td>
<td>81</td>
</tr>
<tr>
<td>Ganyushkina, Mariya</td>
<td>16</td>
</tr>
<tr>
<td>Garaj, J.</td>
<td>66</td>
</tr>
<tr>
<td>Garcia Vicente, S.</td>
<td>64</td>
</tr>
<tr>
<td>Garin, M.</td>
<td>96</td>
</tr>
<tr>
<td>Gausen, A.</td>
<td>63</td>
</tr>
<tr>
<td>Gavrilov, V.</td>
<td>5</td>
</tr>
<tr>
<td>Gavrilova, N. D.</td>
<td>77</td>
</tr>
<tr>
<td>Gaydamovich, S. Ya.</td>
<td>58</td>
</tr>
<tr>
<td>Gedvilas, M.</td>
<td>15</td>
</tr>
<tr>
<td>Geier, S.</td>
<td>61</td>
</tr>
<tr>
<td>Geifreykh, G. B.</td>
<td>51</td>
</tr>
<tr>
<td>Genet, Michel</td>
<td>110</td>
</tr>
<tr>
<td>Genov, G.</td>
<td>59</td>
</tr>
<tr>
<td>Genov, Subotin</td>
<td>23</td>
</tr>
<tr>
<td>Ginsicke, Richard</td>
<td>18</td>
</tr>
<tr>
<td>Georgieva, St.</td>
<td>59</td>
</tr>
<tr>
<td>Gerasimov, L. M.</td>
<td>48</td>
</tr>
<tr>
<td>Gerasimov, V. V.</td>
<td>80</td>
</tr>
<tr>
<td>Gerd, M. A.</td>
<td>58</td>
</tr>
<tr>
<td>Gerzhikov, St.</td>
<td>22</td>
</tr>
<tr>
<td>Gergely, T.</td>
<td>54</td>
</tr>
<tr>
<td>German, M. Ya.</td>
<td>81</td>
</tr>
<tr>
<td>Gersten, Klaus</td>
<td>47</td>
</tr>
<tr>
<td>Getling, A. V.</td>
<td>112</td>
</tr>
<tr>
<td>Geza, Petrasovits</td>
<td>102</td>
</tr>
<tr>
<td>Chelberg, V. W.</td>
<td>68</td>
</tr>
<tr>
<td>Giban, J.</td>
<td>60</td>
</tr>
<tr>
<td>Gierloff-Emden, H. G.</td>
<td>61</td>
</tr>
<tr>
<td>Ginzburg, V. L.</td>
<td>112</td>
</tr>
<tr>
<td>First Name</td>
<td>Last Name, Nicknames</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Ciombo</td>
<td>Ni co lac</td>
</tr>
<tr>
<td>Glotta, C.</td>
<td></td>
</tr>
<tr>
<td>Gisin, G.</td>
<td></td>
</tr>
<tr>
<td>Gitlevich, A. Ye.</td>
<td></td>
</tr>
<tr>
<td>Glubokov, A.</td>
<td></td>
</tr>
<tr>
<td>Glukhov, S. A.</td>
<td></td>
</tr>
<tr>
<td>Glushkov, N.</td>
<td></td>
</tr>
<tr>
<td>Goddet, J.</td>
<td></td>
</tr>
<tr>
<td>Greens, E.</td>
<td></td>
</tr>
<tr>
<td>Gogol', B.</td>
<td></td>
</tr>
<tr>
<td>Gogoleva, M. A.</td>
<td></td>
</tr>
<tr>
<td>Golabek, A.</td>
<td></td>
</tr>
<tr>
<td>Gold'denfeld, I. V.</td>
<td></td>
</tr>
<tr>
<td>Goldshtein, N. L.</td>
<td></td>
</tr>
<tr>
<td>Golias, Tibor</td>
<td></td>
</tr>
<tr>
<td>Golman, L. D.</td>
<td></td>
</tr>
<tr>
<td>Goloshchapov, Yu. V.</td>
<td></td>
</tr>
<tr>
<td>Golts, Ye. Ya.</td>
<td></td>
</tr>
<tr>
<td>Gl'tsev, V.</td>
<td></td>
</tr>
<tr>
<td>Golubev, I. T.</td>
<td></td>
</tr>
<tr>
<td>Golubkov, L. N.</td>
<td></td>
</tr>
<tr>
<td>Golubovskiy, Ye. V.</td>
<td></td>
</tr>
<tr>
<td>Gonskaya, G. G.</td>
<td></td>
</tr>
<tr>
<td>Goral, Arkadiusz</td>
<td></td>
</tr>
<tr>
<td>Gorbunov, Ye. P.</td>
<td></td>
</tr>
<tr>
<td>Gorelik, L. Ya.</td>
<td></td>
</tr>
<tr>
<td>Gorgenyi, Ferenc</td>
<td></td>
</tr>
<tr>
<td>Govorov, V.</td>
<td></td>
</tr>
<tr>
<td>Grachev, S.</td>
<td></td>
</tr>
<tr>
<td>Grafen, H.</td>
<td></td>
</tr>
<tr>
<td>Graiskiy, Yu.</td>
<td></td>
</tr>
<tr>
<td>Grampaix, Jean</td>
<td></td>
</tr>
<tr>
<td>Granitov, A. I.</td>
<td></td>
</tr>
<tr>
<td>Grusshoff, H. W.</td>
<td></td>
</tr>
<tr>
<td>Grebenshchikov, S. Ye.</td>
<td></td>
</tr>
<tr>
<td>Grebenyuk, A. A.</td>
<td></td>
</tr>
<tr>
<td>Greshnev, A.</td>
<td></td>
</tr>
<tr>
<td>Gribkov, V. A.</td>
<td></td>
</tr>
<tr>
<td>Griesshammer, G.</td>
<td></td>
</tr>
<tr>
<td>Grigor'yants, Ye. A.</td>
<td></td>
</tr>
<tr>
<td>Grigor'yeva, V. A.</td>
<td></td>
</tr>
<tr>
<td>Grobelny, A.</td>
<td></td>
</tr>
<tr>
<td>Grodzovskiy, G. L.</td>
<td></td>
</tr>
<tr>
<td>Grosheva, L. A.</td>
<td></td>
</tr>
<tr>
<td>Grossmann, R.</td>
<td></td>
</tr>
<tr>
<td>Groth, W.</td>
<td></td>
</tr>
<tr>
<td>Groza, Octavian</td>
<td></td>
</tr>
<tr>
<td>Gruchmeier, H. B.</td>
<td></td>
</tr>
<tr>
<td>Grzinov, V. M.</td>
<td></td>
</tr>
<tr>
<td>Gubenko, Ye. I.</td>
<td></td>
</tr>
<tr>
<td>Gudima, K. K.</td>
<td></td>
</tr>
<tr>
<td>Gudkov, S. I.</td>
<td></td>
</tr>
<tr>
<td>Gudzenko, A. I.</td>
<td></td>
</tr>
<tr>
<td>Gundobin, K.</td>
<td></td>
</tr>
<tr>
<td>Gurevich, M. A.</td>
<td></td>
</tr>
<tr>
<td>Gurevich, G. P.</td>
<td></td>
</tr>
<tr>
<td>Gurevich,</td>
<td></td>
</tr>
<tr>
<td>Gurevich, V. T.</td>
<td></td>
</tr>
<tr>
<td>Gusekov, A. I.</td>
<td></td>
</tr>
<tr>
<td>Gusev, Yu. N.</td>
<td></td>
</tr>
<tr>
<td>Gushchin, M. V.</td>
<td></td>
</tr>
<tr>
<td>Gusto, Hubertus</td>
<td></td>
</tr>
<tr>
<td>Gutenzakher, L. J.</td>
<td></td>
</tr>
<tr>
<td>Guthertz, M.</td>
<td></td>
</tr>
<tr>
<td>Gutiérrez, Nelson</td>
<td></td>
</tr>
<tr>
<td>Gutiérrez, G.</td>
<td></td>
</tr>
<tr>
<td>Haase, B.</td>
<td></td>
</tr>
<tr>
<td>Habash, George</td>
<td></td>
</tr>
<tr>
<td>Haedje, E. F.</td>
<td></td>
</tr>
<tr>
<td>Hagberg, Hilding</td>
<td></td>
</tr>
<tr>
<td>Hahn, Harry</td>
<td></td>
</tr>
<tr>
<td>Hallmann, W.</td>
<td></td>
</tr>
<tr>
<td>Hamada, Frantisek</td>
<td></td>
</tr>
<tr>
<td>Han, C.</td>
<td></td>
</tr>
<tr>
<td>Hanci, J.</td>
<td></td>
</tr>
<tr>
<td>Hansen, H. P.</td>
<td></td>
</tr>
<tr>
<td>Hanf, Jaroslav</td>
<td></td>
</tr>
<tr>
<td>Harffland, Harri</td>
<td></td>
</tr>
<tr>
<td>Hartman, G.</td>
<td></td>
</tr>
<tr>
<td>Hashimoto, S.</td>
<td></td>
</tr>
<tr>
<td>Hatamaka, K.</td>
<td></td>
</tr>
<tr>
<td>Havell, V.</td>
<td></td>
</tr>
<tr>
<td>Heiden, P.</td>
<td></td>
</tr>
<tr>
<td>Hegedüs, András</td>
<td></td>
</tr>
<tr>
<td>Heideke, P.</td>
<td></td>
</tr>
<tr>
<td>Heimler, J.</td>
<td></td>
</tr>
<tr>
<td>Heinritz, M.</td>
<td></td>
</tr>
<tr>
<td>Heinz</td>
<td></td>
</tr>
<tr>
<td>Held, A.</td>
<td></td>
</tr>
<tr>
<td>Hellendoorn, E. W.</td>
<td></td>
</tr>
<tr>
<td>Hengerer, Frank</td>
<td></td>
</tr>
<tr>
<td>Henke, F.</td>
<td></td>
</tr>
<tr>
<td>Hennig, K.</td>
<td></td>
</tr>
<tr>
<td>Herbst, C. H.</td>
<td></td>
</tr>
<tr>
<td>Hesc, W. R.</td>
<td></td>
</tr>
<tr>
<td>Hidos, Cornel</td>
<td></td>
</tr>
<tr>
<td>Hilger, W.</td>
<td></td>
</tr>
<tr>
<td>Hinz, H.</td>
<td></td>
</tr>
<tr>
<td>Hiorth, N.</td>
<td></td>
</tr>
<tr>
<td>Hippchen, P.</td>
<td></td>
</tr>
<tr>
<td>Hiroshi Suskawa</td>
<td></td>
</tr>
<tr>
<td>Ho, Hsiang-Yin</td>
<td></td>
</tr>
<tr>
<td>Hoang Xuan Tuy</td>
<td></td>
</tr>
<tr>
<td>Hoch, F.</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Giosan, Nicolae</td>
<td>49</td>
</tr>
<tr>
<td>Giotta, C.</td>
<td>93</td>
</tr>
<tr>
<td>Gisin, G.</td>
<td>12</td>
</tr>
<tr>
<td>Gitlevich, A. Ye.</td>
<td>112</td>
</tr>
<tr>
<td>Glubov, A.</td>
<td>14</td>
</tr>
<tr>
<td>Glubkov, S. A.</td>
<td>56</td>
</tr>
<tr>
<td>Glushkov, N.</td>
<td>5</td>
</tr>
<tr>
<td>Goddet, J.</td>
<td>77</td>
</tr>
<tr>
<td>Goens, E.</td>
<td>118</td>
</tr>
<tr>
<td>Gogol', B.</td>
<td>7</td>
</tr>
<tr>
<td>Gogoleva, M. A.</td>
<td>57</td>
</tr>
<tr>
<td>Golabek, K.</td>
<td>19</td>
</tr>
<tr>
<td>Gol'dentfeld, I. V.</td>
<td>117</td>
</tr>
<tr>
<td>Goldshtein, N. L.</td>
<td>79</td>
</tr>
<tr>
<td>Golias, Tibor</td>
<td>107</td>
</tr>
<tr>
<td>Golman, L. R.</td>
<td>78</td>
</tr>
<tr>
<td>Goloshechakov, Yu. V.</td>
<td>112</td>
</tr>
<tr>
<td>Golts, Ye. Ya.</td>
<td>111</td>
</tr>
<tr>
<td>Gol'tsev, V.</td>
<td>11</td>
</tr>
<tr>
<td>Golubev, I. F.</td>
<td>64</td>
</tr>
<tr>
<td>Golubkov, L. N.</td>
<td>120</td>
</tr>
<tr>
<td>Golubovskiy, Ye. V.</td>
<td>120</td>
</tr>
<tr>
<td>Gonskaya, G. G.</td>
<td>65</td>
</tr>
<tr>
<td>Goral, Arkadiusz</td>
<td>124</td>
</tr>
<tr>
<td>Gorbulow, Ye. P.</td>
<td>121</td>
</tr>
<tr>
<td>Gorelik, I. Ya.</td>
<td>5</td>
</tr>
<tr>
<td>Gorgenyi, Ferenc</td>
<td>25</td>
</tr>
<tr>
<td>Govorov, V.</td>
<td>11</td>
</tr>
<tr>
<td>Grachev, S.</td>
<td>15</td>
</tr>
<tr>
<td>Grafen, H.</td>
<td>90</td>
</tr>
<tr>
<td>Grafskiy, Yu.</td>
<td>6</td>
</tr>
<tr>
<td>Grampaix, Jean</td>
<td>31</td>
</tr>
<tr>
<td>Granitov, A. I.</td>
<td>47</td>
</tr>
<tr>
<td>Grasshoff, R. W.</td>
<td>88</td>
</tr>
<tr>
<td>Grebenshchikov, S. Ye.</td>
<td>111</td>
</tr>
<tr>
<td>Grebenyuk, A. A.</td>
<td>82</td>
</tr>
<tr>
<td>Greshnev, A.</td>
<td>80</td>
</tr>
<tr>
<td>Grishkov, V. A.</td>
<td>115</td>
</tr>
<tr>
<td>Griesshammer, G.</td>
<td>90</td>
</tr>
<tr>
<td>Grigor'yants, Ye. A.</td>
<td>69</td>
</tr>
<tr>
<td>Grigor'yeva, V. A.</td>
<td>81</td>
</tr>
<tr>
<td>Grobelny, A.</td>
<td>71</td>
</tr>
<tr>
<td>Grodlovskiy, G. L.</td>
<td>121</td>
</tr>
<tr>
<td>Grosheva, L. A.</td>
<td>53</td>
</tr>
<tr>
<td>Grossmann, R.</td>
<td>62</td>
</tr>
<tr>
<td>Groth, W.</td>
<td>67</td>
</tr>
<tr>
<td>Groza, Octavian</td>
<td>21</td>
</tr>
<tr>
<td>Gruchmeier, H. B.</td>
<td>118</td>
</tr>
<tr>
<td>Gruzinov, V. M.</td>
<td>70</td>
</tr>
<tr>
<td>Gubenko, Ye. I.</td>
<td>72</td>
</tr>
<tr>
<td>Gudima, K. K.</td>
<td>114</td>
</tr>
<tr>
<td>Gudkov, S. I.</td>
<td>80</td>
</tr>
<tr>
<td>Gudzenko, A. I.</td>
<td>72</td>
</tr>
<tr>
<td>Gundobin, K.</td>
<td>1</td>
</tr>
</tbody>
</table>

- H -

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gubachev, Aleksandr</td>
<td>48</td>
</tr>
<tr>
<td>Gurevich, M. A.</td>
<td>112</td>
</tr>
<tr>
<td>Garinovich, G. P.</td>
<td>54</td>
</tr>
<tr>
<td>Girovich, P.</td>
<td>96</td>
</tr>
<tr>
<td>Garyevich, V. T.</td>
<td>116</td>
</tr>
<tr>
<td>Gusenkov, A. P.</td>
<td>78</td>
</tr>
<tr>
<td>Gusev, Yu. X.</td>
<td>114</td>
</tr>
<tr>
<td>Gushchina, M. V.</td>
<td>53</td>
</tr>
<tr>
<td>Guske, Hubertus</td>
<td>28</td>
</tr>
<tr>
<td>Gutenmakher, L. I.</td>
<td>94</td>
</tr>
<tr>
<td>Gutherz, M.</td>
<td>62</td>
</tr>
<tr>
<td>Gutierrez, Nelson</td>
<td>44</td>
</tr>
<tr>
<td>Günsler, C.</td>
<td>109</td>
</tr>
</tbody>
</table>

- H -

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haase, B.</td>
<td>67</td>
</tr>
<tr>
<td>Hamash, George</td>
<td>54</td>
</tr>
<tr>
<td>Hacele, E. F.</td>
<td>75</td>
</tr>
<tr>
<td>Hagberg, Hilding</td>
<td>30</td>
</tr>
<tr>
<td>Hahn, Harry</td>
<td>67</td>
</tr>
<tr>
<td>Hallmann, W.</td>
<td>121</td>
</tr>
<tr>
<td>Hamada, Ernstieck</td>
<td>25</td>
</tr>
<tr>
<td>Han Ch'an-Yuck</td>
<td>68</td>
</tr>
<tr>
<td>Hancl, J.</td>
<td>63</td>
</tr>
<tr>
<td>Hansen, H. P.</td>
<td>50</td>
</tr>
<tr>
<td>Hansl, Jaroslav</td>
<td>17</td>
</tr>
<tr>
<td>Harrland, Harri</td>
<td>28</td>
</tr>
<tr>
<td>Hartman, G.</td>
<td>26</td>
</tr>
<tr>
<td>Hashimoto, S.</td>
<td>58</td>
</tr>
<tr>
<td>Hatahara, E.</td>
<td>91</td>
</tr>
<tr>
<td>Havelska, V.</td>
<td>17</td>
</tr>
<tr>
<td>Hedden, K.</td>
<td>112</td>
</tr>
<tr>
<td>Hegedus, Andras</td>
<td>25</td>
</tr>
<tr>
<td>Heidtke, P.</td>
<td>54</td>
</tr>
<tr>
<td>Heimerl, J.</td>
<td>82</td>
</tr>
<tr>
<td>Heinrith, M.</td>
<td>89</td>
</tr>
<tr>
<td>Heinz</td>
<td>123</td>
</tr>
<tr>
<td>Held, A.</td>
<td>62</td>
</tr>
<tr>
<td>Hellendoorn, E. W.</td>
<td>60</td>
</tr>
<tr>
<td>Hengerer, Frank</td>
<td>80</td>
</tr>
<tr>
<td>Henke, P.</td>
<td>87</td>
</tr>
<tr>
<td>Hennies, K.</td>
<td>89</td>
</tr>
<tr>
<td>Hermott, C. H.</td>
<td>61</td>
</tr>
<tr>
<td>Hess, M. P.</td>
<td>62</td>
</tr>
<tr>
<td>Hidros, Cornel</td>
<td>20</td>
</tr>
<tr>
<td>Hilger, W.</td>
<td>74</td>
</tr>
<tr>
<td>Hinze, H.</td>
<td>86</td>
</tr>
<tr>
<td>Bjørn, N.</td>
<td>46</td>
</tr>
<tr>
<td>Hippchen, P.</td>
<td>62</td>
</tr>
<tr>
<td>Hiroshi Suzuki</td>
<td>92</td>
</tr>
<tr>
<td>Ho, Hsiang-Hsin</td>
<td>306</td>
</tr>
<tr>
<td>Hoang Xuan Tuy</td>
<td>46</td>
</tr>
<tr>
<td>Hoch, H.</td>
<td>119</td>
</tr>
<tr>
<td>Author</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Hoffmann, Hans</td>
<td>17</td>
</tr>
<tr>
<td>Holland, E.</td>
<td>60</td>
</tr>
<tr>
<td>Holstein, C.</td>
<td>85</td>
</tr>
<tr>
<td>Honzak, J.</td>
<td>66</td>
</tr>
<tr>
<td>Horn, W.</td>
<td>86</td>
</tr>
<tr>
<td>Horvath, S.</td>
<td>84</td>
</tr>
<tr>
<td>Hoxha, Nexhmije</td>
<td>27</td>
</tr>
<tr>
<td>Hoxholli, Rapush</td>
<td>16</td>
</tr>
<tr>
<td>Ihrabrov, Ju. B.</td>
<td>57</td>
</tr>
<tr>
<td>Hruzy, V.</td>
<td>99</td>
</tr>
<tr>
<td>Hsiu, Ch'ai</td>
<td>39</td>
</tr>
<tr>
<td>Hudson, A.</td>
<td>107</td>
</tr>
<tr>
<td>Huet, J. A.</td>
<td>63</td>
</tr>
<tr>
<td>Huml, P.</td>
<td>84</td>
</tr>
<tr>
<td>Huang, R.</td>
<td>38</td>
</tr>
<tr>
<td>Hurliman, Reinhard</td>
<td>47</td>
</tr>
<tr>
<td>Husak, Gustav</td>
<td>24</td>
</tr>
<tr>
<td>Huszti, Denes</td>
<td>18</td>
</tr>
<tr>
<td>Hutira, Ervin</td>
<td>21</td>
</tr>
<tr>
<td>Iancu, V.</td>
<td>26</td>
</tr>
<tr>
<td>Ibl, N.</td>
<td>74</td>
</tr>
<tr>
<td>Ichiro Tsuji</td>
<td>92</td>
</tr>
<tr>
<td>Ignatov, Iliya</td>
<td>16</td>
</tr>
<tr>
<td>Ignatushchenko, V. V.</td>
<td>94</td>
</tr>
<tr>
<td>Igmova, A. I.</td>
<td>48</td>
</tr>
<tr>
<td>Il'in, V.</td>
<td>2</td>
</tr>
<tr>
<td>Imai, U.</td>
<td>92</td>
</tr>
<tr>
<td>Imielinski, L.</td>
<td>64</td>
</tr>
<tr>
<td>Inoko, F.</td>
<td>92</td>
</tr>
<tr>
<td>Isabayeva, V. A.</td>
<td>115</td>
</tr>
<tr>
<td>Isayan, A.</td>
<td>76</td>
</tr>
<tr>
<td>Iskra, V. D.</td>
<td>117</td>
</tr>
<tr>
<td>Ismagulov, K.</td>
<td>4</td>
</tr>
<tr>
<td>Ito, Y.</td>
<td>92</td>
</tr>
<tr>
<td>Ivanenko, A. I.</td>
<td>114</td>
</tr>
<tr>
<td>Ivanitskiy, G. R.</td>
<td>54</td>
</tr>
<tr>
<td>Ivanov, A. P.</td>
<td>106</td>
</tr>
<tr>
<td>Ivanov, A. V.</td>
<td>57</td>
</tr>
<tr>
<td>Ivanov, D. I.</td>
<td>121</td>
</tr>
<tr>
<td>Ivanov, G.</td>
<td>97</td>
</tr>
<tr>
<td>Ivanov, Yu. N.</td>
<td>121</td>
</tr>
<tr>
<td>Ivanov, Vasil</td>
<td>27</td>
</tr>
<tr>
<td>Ivanov-Muromski, K. A.</td>
<td>55</td>
</tr>
<tr>
<td>Ivic, Ratomir</td>
<td>27</td>
</tr>
<tr>
<td>Ivyaniskiy, A.</td>
<td>99</td>
</tr>
<tr>
<td>'Izzat, Ibrahim</td>
<td>34</td>
</tr>
</tbody>
</table>

Jackulin, G.                                 | 84   |
Jacob-Friesen, K. H.                         | 123  |
Jakenberg, H. E.                             | 93   |
Jankovic, Milan                              | 105  |
Jiránek, G.                                  | 37   |
Jiránek, J.                                  | 87   |
Jassem, D.                                   | 106  |
Jochholf, H.                                 | 63   |
Joray, B.                                   | 106  |
Jessberger, H. W.                            | 71   |
Jiang Mei-Xin                                | 70   |
Jegan, Savin                                 | 26   |
Jekshen, V.                                  | 105  |
Jon, R.                                     | 85   |
Julis, Gilbert                               | 32   |
Junker, G.                                  | 87   |
Jurain, G.                                   | 71   |
Jurain, G.                                   | 87   |
Kaba, Maikán                                 | 33   |
Kachalov, N.                                 | 55   |
Kachurin, V.                                 | 47   |
Kádár, Z.                                   | 83   |
Kádár, Vladimir                              | 17   |
Kaduk, B. G.                                | 127  |
Káčelin, V.                                 | 69   |
Ksdymbekov, Z.                               | 15   |
Kadyrov, V.                                  | 14   |
Kadyshhev, L.                               | 3     |
Kagan, R. L.                                 | 53   |
Kegan, Yu.                                   | 113  |
Kehlen, Peter                                | 106  |
Keluza, F.                                  | 93   |
Kamoun, R.                                   | 110  |
Kamyshov, V.                                 | 8    |
Kanagwa, A.                                  | 120  |
Kanyaruguru, Barnabé                         | 31   |
Kanyaye, A. A.                               | 98   |
Kaplan, S. M.                                | 115  |
Kapralov, G.                                 | 9     |
Karacina, A. A.                              | 79   |
Karamyan, S. A.                              | 114  |
Karaulov                                    | 114  |
Kerzouilov, A. T.                            | 82   |
Kurimbaev, T. D.                             | 115  |
Kruglov, A. N.                               | 113  |
Kurylyuk, I.                                 | 1     |
Kurnaushenko, N. N.                          | 105  |
Kupich, V.                                   | 7     |
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karpov, A. A.</td>
<td>81</td>
</tr>
<tr>
<td>Karvonen, Toivo</td>
<td>29</td>
</tr>
<tr>
<td>Kashikina, G. B.</td>
<td>56</td>
</tr>
<tr>
<td>Kasova, I.</td>
<td>83</td>
</tr>
<tr>
<td>Kas'yvan, I. I.</td>
<td>56</td>
</tr>
<tr>
<td>Katie, P.</td>
<td>49</td>
</tr>
<tr>
<td>Katsenelinyovgen, A. I.</td>
<td>2</td>
</tr>
<tr>
<td>Katsuno</td>
<td>103</td>
</tr>
<tr>
<td>Katsumo</td>
<td>103</td>
</tr>
<tr>
<td>Kaume, P.</td>
<td>67</td>
</tr>
<tr>
<td>Kawalec, Wincency</td>
<td>20</td>
</tr>
<tr>
<td>Kazakov, D.</td>
<td>11</td>
</tr>
<tr>
<td>Kazanova, K.</td>
<td>3</td>
</tr>
<tr>
<td>Kazharskiy, V.</td>
<td>13</td>
</tr>
<tr>
<td>Keil, A.</td>
<td>88</td>
</tr>
<tr>
<td>Keller, J.</td>
<td>64</td>
</tr>
<tr>
<td>Kempa, Gosta</td>
<td>30</td>
</tr>
<tr>
<td>Kerimov, K. A.</td>
<td>113</td>
</tr>
<tr>
<td>Kessler, Godehardt</td>
<td>106</td>
</tr>
<tr>
<td>Kharchenko, A. G.</td>
<td>113</td>
</tr>
<tr>
<td>Kharkovskiy, Yu.</td>
<td>4</td>
</tr>
<tr>
<td>Kharyullina, A. Ya.</td>
<td>106</td>
</tr>
<tr>
<td>Khor'kov, V.</td>
<td>6</td>
</tr>
<tr>
<td>Khozov, G. V.</td>
<td>51</td>
</tr>
<tr>
<td>Khromushkin, A. I.</td>
<td>121</td>
</tr>
<tr>
<td>Khrustalev, V. A.</td>
<td>105</td>
</tr>
<tr>
<td>al-Khuli, Lutfi</td>
<td>34</td>
</tr>
<tr>
<td>Khvatkin, N.</td>
<td>7</td>
</tr>
<tr>
<td>Kieffer, R.</td>
<td>89</td>
</tr>
<tr>
<td>Kikut, R. P.</td>
<td>58</td>
</tr>
<tr>
<td>Kim Hah-gwong</td>
<td>36</td>
</tr>
<tr>
<td>Kiperman, G.</td>
<td>5</td>
</tr>
<tr>
<td>Kirillov, I. I.</td>
<td>76</td>
</tr>
<tr>
<td>Kirillov, P. L.</td>
<td>116</td>
</tr>
<tr>
<td>Kiselev, A.</td>
<td>14</td>
</tr>
<tr>
<td>Kitayigorodskiy, S. A.</td>
<td>69</td>
</tr>
<tr>
<td>Klassen, V. I.</td>
<td>116</td>
</tr>
<tr>
<td>Klassen, V. L.</td>
<td>114</td>
</tr>
<tr>
<td>Kleinau, K. H.</td>
<td>108</td>
</tr>
<tr>
<td>Kleymenov, B. V.</td>
<td>82</td>
</tr>
<tr>
<td>Klimenko, A. P.</td>
<td>65</td>
</tr>
<tr>
<td>Klimkova-Deutschova, E.</td>
<td>59</td>
</tr>
<tr>
<td>Klusener, O.</td>
<td>101</td>
</tr>
<tr>
<td>Klyachkin, A. L.</td>
<td>120</td>
</tr>
<tr>
<td>Klyuchner, G.</td>
<td>15</td>
</tr>
<tr>
<td>Knyaz'kov, V.</td>
<td>27</td>
</tr>
<tr>
<td>Koch, K.-H.</td>
<td>87</td>
</tr>
<tr>
<td>Kocherezhkin, V. G.</td>
<td>56</td>
</tr>
<tr>
<td>Kochinyan, A.</td>
<td>3</td>
</tr>
<tr>
<td>Kohler, Rudolf</td>
<td>108</td>
</tr>
<tr>
<td>Koerner, William</td>
<td>17</td>
</tr>
<tr>
<td>Koester, W.</td>
<td>86</td>
</tr>
<tr>
<td>Kogan, A. B.</td>
<td>54</td>
</tr>
<tr>
<td>Kohlaas, E.</td>
<td>86</td>
</tr>
<tr>
<td>Koti, D.</td>
<td>89</td>
</tr>
<tr>
<td>Kobina, E.</td>
<td>93</td>
</tr>
<tr>
<td>Kokeny, Istvan</td>
<td>19</td>
</tr>
<tr>
<td>Kolwich, T. A.</td>
<td>113</td>
</tr>
<tr>
<td>Kol'ch, M.</td>
<td>67</td>
</tr>
<tr>
<td>Konchinskaya, A. Z.</td>
<td>59</td>
</tr>
<tr>
<td>Kon'ets, V.</td>
<td>4</td>
</tr>
<tr>
<td>Kolcheser, G.</td>
<td>54</td>
</tr>
<tr>
<td>Kolotilkin, B.</td>
<td>99</td>
</tr>
<tr>
<td>Kol'tsov, N. K.</td>
<td>53</td>
</tr>
<tr>
<td>Kochev, V.</td>
<td>11</td>
</tr>
<tr>
<td>Kon'k, F.</td>
<td>88</td>
</tr>
<tr>
<td>Komarov, N.</td>
<td>12</td>
</tr>
<tr>
<td>Komarov, V. I.</td>
<td>114</td>
</tr>
<tr>
<td>Komarov, V. L.</td>
<td>66</td>
</tr>
<tr>
<td>Konev, S. V.</td>
<td>55</td>
</tr>
<tr>
<td>Konig, E.</td>
<td>63</td>
</tr>
<tr>
<td>Konig, P.</td>
<td>86</td>
</tr>
<tr>
<td>Kontorovich, I. Ye.</td>
<td>79</td>
</tr>
<tr>
<td>Kootz, T. R.</td>
<td>20</td>
</tr>
<tr>
<td>Kopychova, V. S.</td>
<td>53</td>
</tr>
<tr>
<td>Kopylov, G. I.</td>
<td>109</td>
</tr>
<tr>
<td>Korennaya, I. N.</td>
<td>114</td>
</tr>
<tr>
<td>Korneev, V. I.</td>
<td>81</td>
</tr>
<tr>
<td>Korneev, V.</td>
<td>95</td>
</tr>
<tr>
<td>Korolev, A. M.</td>
<td>78</td>
</tr>
<tr>
<td>Korshak, V. V.</td>
<td>66</td>
</tr>
<tr>
<td>Korsun, A. G.</td>
<td>116</td>
</tr>
<tr>
<td>Koruchikov, A. I.</td>
<td>117</td>
</tr>
<tr>
<td>Korygin, B.</td>
<td>6</td>
</tr>
<tr>
<td>Kurzhavin, K. N.</td>
<td>67</td>
</tr>
<tr>
<td>Konev, V.</td>
<td>119</td>
</tr>
<tr>
<td>Kostilev, Yu.</td>
<td>16</td>
</tr>
<tr>
<td>Kostomarova, A. A.</td>
<td>54</td>
</tr>
<tr>
<td>Kosyuk, A.</td>
<td>14</td>
</tr>
<tr>
<td>Kosyukov, N. S.</td>
<td>66</td>
</tr>
<tr>
<td>Kosyachenko, E. A.</td>
<td>117</td>
</tr>
<tr>
<td>Kot, A. A.</td>
<td>103</td>
</tr>
<tr>
<td>Kotik, M. G.</td>
<td>46</td>
</tr>
<tr>
<td>Kotlyar, V. Z.</td>
<td>58</td>
</tr>
<tr>
<td>Kotsev, Venelin</td>
<td>25</td>
</tr>
<tr>
<td>Koudelka, Vaclav</td>
<td>17</td>
</tr>
<tr>
<td>Kouzov, D. P.</td>
<td>94</td>
</tr>
<tr>
<td>Kovac, Ondrej</td>
<td>107</td>
</tr>
<tr>
<td>Kovacs, K. P.</td>
<td>75</td>
</tr>
<tr>
<td>Koval', I. A.</td>
<td>98</td>
</tr>
<tr>
<td>Kovall', V.</td>
<td>47</td>
</tr>
<tr>
<td>Kovai'chuk, I. A.</td>
<td>72</td>
</tr>
<tr>
<td>Kovalenko, A. D.</td>
<td>115</td>
</tr>
<tr>
<td>Kovalenko, I.</td>
<td>12</td>
</tr>
<tr>
<td>Kovalenko, K. S.</td>
<td>7</td>
</tr>
<tr>
<td>Kovaiev, N.</td>
<td>7</td>
</tr>
<tr>
<td>Kovancov, P. R.</td>
<td>2</td>
</tr>
<tr>
<td>Kovrigin, V. A.</td>
<td>78</td>
</tr>
<tr>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Libenson, M. N.</td>
<td>112</td>
</tr>
<tr>
<td>Lieben, S.</td>
<td>54</td>
</tr>
<tr>
<td>Liepmann, H.</td>
<td>61</td>
</tr>
<tr>
<td>Lieske, E.-G.</td>
<td>90</td>
</tr>
<tr>
<td>Ligum, T. I.</td>
<td>46</td>
</tr>
<tr>
<td>Li, Zeqir</td>
<td>16</td>
</tr>
<tr>
<td>Lin, C.</td>
<td>46</td>
</tr>
<tr>
<td>LingeIlbach, H.</td>
<td>62</td>
</tr>
<tr>
<td>Lipis, B. V.</td>
<td>96</td>
</tr>
<tr>
<td>Lipshteyn, R. A.</td>
<td>120</td>
</tr>
<tr>
<td>Lisina, L. R.</td>
<td>51</td>
</tr>
<tr>
<td>Lisov, I. I.</td>
<td>121</td>
</tr>
<tr>
<td>Litinskaya, L. L.</td>
<td>54</td>
</tr>
<tr>
<td>Ljungberg, I.</td>
<td>89</td>
</tr>
<tr>
<td>Lobanov, P. P.</td>
<td>48</td>
</tr>
<tr>
<td>Lobanov, Ye. M.</td>
<td>114</td>
</tr>
<tr>
<td>Loescher, W.</td>
<td>87</td>
</tr>
<tr>
<td>Logina, K. M.</td>
<td>53</td>
</tr>
<tr>
<td>Logvinov, K. T.</td>
<td>53</td>
</tr>
<tr>
<td>Loiseau, Henri</td>
<td>118</td>
</tr>
<tr>
<td>Lomsadze, Yu. M.</td>
<td>117</td>
</tr>
<tr>
<td>Lopez-Menchero, E.</td>
<td>68</td>
</tr>
<tr>
<td>Lopez Murilla, Rene</td>
<td>44</td>
</tr>
<tr>
<td>Lorenz, F.</td>
<td>67</td>
</tr>
<tr>
<td>Lowe, H.</td>
<td>110</td>
</tr>
<tr>
<td>Lu Fao-chung</td>
<td>59</td>
</tr>
<tr>
<td>Ludanov, K. I.</td>
<td>98</td>
</tr>
<tr>
<td>Ludwig, O.</td>
<td>95</td>
</tr>
<tr>
<td>Ludyga, J.</td>
<td>88</td>
</tr>
<tr>
<td>Lueg, W.</td>
<td>88</td>
</tr>
<tr>
<td>Lukyanov, G. A.</td>
<td>116</td>
</tr>
<tr>
<td>Lunets, Yu. F.</td>
<td>58</td>
</tr>
<tr>
<td>Luong Dinh Cua</td>
<td>50</td>
</tr>
<tr>
<td>Lupu, Petre</td>
<td>26</td>
</tr>
<tr>
<td>Luria, A. R.</td>
<td>56</td>
</tr>
<tr>
<td>Lushchikov, V. I.</td>
<td>114</td>
</tr>
<tr>
<td>Luu Quy Ky</td>
<td>38</td>
</tr>
<tr>
<td>Lyapin, A.</td>
<td>97</td>
</tr>
<tr>
<td>Lyashenko, I. M.</td>
<td>94</td>
</tr>
<tr>
<td>Lyubimov, G. A.</td>
<td>116</td>
</tr>
<tr>
<td>Lyubynskyy, M. A.</td>
<td>58</td>
</tr>
<tr>
<td>Lyuminov, Magner</td>
<td>99</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Mabruk, Abbas</td>
<td></td>
</tr>
<tr>
<td>Machold, H.</td>
<td></td>
</tr>
<tr>
<td>Machu, W.</td>
<td></td>
</tr>
<tr>
<td>Madsen, Freddy</td>
<td></td>
</tr>
<tr>
<td>Majewski, Zdislaw</td>
<td></td>
</tr>
<tr>
<td>Makarova, G. V.</td>
<td></td>
</tr>
<tr>
<td>Makarychev, M.</td>
<td></td>
</tr>
<tr>
<td>Makhamudov, A. M.</td>
<td></td>
</tr>
<tr>
<td>Malacopol, T.</td>
<td></td>
</tr>
<tr>
<td>Malela, J. L.</td>
<td></td>
</tr>
<tr>
<td>Malinov, V.</td>
<td></td>
</tr>
<tr>
<td>Malinsky, J.</td>
<td></td>
</tr>
<tr>
<td>Malique, C.</td>
<td></td>
</tr>
<tr>
<td>Malushkov, D.</td>
<td></td>
</tr>
<tr>
<td>Malyshevskaya, T.</td>
<td></td>
</tr>
<tr>
<td>Mamensky, R.</td>
<td></td>
</tr>
<tr>
<td>Mamro, K.</td>
<td></td>
</tr>
<tr>
<td>Mamtsev, Ye. N.</td>
<td></td>
</tr>
<tr>
<td>Mamroc, J.</td>
<td></td>
</tr>
<tr>
<td>Mangol, krzysztof</td>
<td></td>
</tr>
<tr>
<td>Man'kovskaya, N. K.</td>
<td></td>
</tr>
<tr>
<td>Marchesini, L.</td>
<td></td>
</tr>
<tr>
<td>Marec, J. P.</td>
<td></td>
</tr>
<tr>
<td>Marek, Jindrich</td>
<td></td>
</tr>
<tr>
<td>Mares, D.</td>
<td></td>
</tr>
<tr>
<td>Marinas, F. J.</td>
<td></td>
</tr>
<tr>
<td>Markov, G. V.</td>
<td></td>
</tr>
<tr>
<td>Markov, V. V.</td>
<td></td>
</tr>
<tr>
<td>Markovets, V.</td>
<td></td>
</tr>
<tr>
<td>Markowsli, J.</td>
<td></td>
</tr>
<tr>
<td>Marti, J.</td>
<td></td>
</tr>
<tr>
<td>Martin, Jean</td>
<td></td>
</tr>
<tr>
<td>Martin, Pio</td>
<td></td>
</tr>
<tr>
<td>Masaru Kiya</td>
<td></td>
</tr>
<tr>
<td>Maschler, H.</td>
<td></td>
</tr>
<tr>
<td>Masson, M.</td>
<td></td>
</tr>
<tr>
<td>Masumoto, T.</td>
<td></td>
</tr>
<tr>
<td>Matern, Hermann</td>
<td></td>
</tr>
<tr>
<td>Matsegora, Ye. A.</td>
<td></td>
</tr>
<tr>
<td>Matulis, A. Yu.</td>
<td></td>
</tr>
<tr>
<td>Matveiev, B. I.</td>
<td></td>
</tr>
<tr>
<td>Matveiev, K. I.</td>
<td></td>
</tr>
<tr>
<td>Matveiev, S.</td>
<td></td>
</tr>
<tr>
<td>Mautner, B.</td>
<td></td>
</tr>
<tr>
<td>Mayorov, A. M.</td>
<td></td>
</tr>
<tr>
<td>Mayorov, B.</td>
<td></td>
</tr>
<tr>
<td>Maznyev, A. A.</td>
<td></td>
</tr>
<tr>
<td>Medenica, Vuko</td>
<td></td>
</tr>
<tr>
<td>Medgyessy, Peter</td>
<td></td>
</tr>
<tr>
<td>Medinsky, L. A.</td>
<td></td>
</tr>
<tr>
<td>Medvedev, A.</td>
<td></td>
</tr>
<tr>
<td>Medvedev, R.</td>
<td></td>
</tr>
<tr>
<td>Medvedev, V.</td>
<td></td>
</tr>
</tbody>
</table>

- 253 -
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitrofanov, V.</td>
<td>4</td>
</tr>
<tr>
<td>Mittag, Günter</td>
<td>18</td>
</tr>
<tr>
<td>Mitzscherling, Peter</td>
<td>24</td>
</tr>
<tr>
<td>Mizrahi</td>
<td>35</td>
</tr>
<tr>
<td>Mizuno, M.</td>
<td>68</td>
</tr>
<tr>
<td>Mo Chi'eng-lueh</td>
<td>71</td>
</tr>
<tr>
<td>Moal, Roland</td>
<td>100</td>
</tr>
<tr>
<td>Moccia, A.</td>
<td>68</td>
</tr>
<tr>
<td>Mohnen, Volker</td>
<td>118</td>
</tr>
<tr>
<td>Moller, I. J.</td>
<td>59</td>
</tr>
<tr>
<td>Molochkov, Yu. B.</td>
<td>73</td>
</tr>
<tr>
<td>Molodenskiy, M. S.</td>
<td>70</td>
</tr>
<tr>
<td>Momose, M.</td>
<td>92</td>
</tr>
<tr>
<td>Monusudhyants, O.</td>
<td>78</td>
</tr>
<tr>
<td>Moraru, Stefan</td>
<td>72</td>
</tr>
<tr>
<td>Mordchelles-Regnier, G.</td>
<td>118</td>
</tr>
<tr>
<td>Moreynis, Ya.</td>
<td>2</td>
</tr>
<tr>
<td>Mori, Yoshihiro</td>
<td>92</td>
</tr>
<tr>
<td>Morozov, A. Ye.</td>
<td>77</td>
</tr>
<tr>
<td>Morozov, P. V.</td>
<td>10</td>
</tr>
<tr>
<td>Morva, Tamas</td>
<td>19</td>
</tr>
<tr>
<td>Mostovnikov, V. A.</td>
<td>112</td>
</tr>
<tr>
<td>Mostovambo, M.</td>
<td>92</td>
</tr>
<tr>
<td>Moulin, L.</td>
<td>85</td>
</tr>
<tr>
<td>Movchan, B. A.</td>
<td>82</td>
</tr>
<tr>
<td>Moye, V.</td>
<td>4</td>
</tr>
<tr>
<td>Mozharov's'kiy, M. S.</td>
<td>117</td>
</tr>
<tr>
<td>Mteyev, A.</td>
<td>97</td>
</tr>
<tr>
<td>Mueller, D. G.</td>
<td>61</td>
</tr>
<tr>
<td>Muhe, F. J.</td>
<td>90</td>
</tr>
<tr>
<td>Mukhomorov, V. L.</td>
<td>79</td>
</tr>
<tr>
<td>Muller, K.</td>
<td>89</td>
</tr>
<tr>
<td>Muro, H.</td>
<td>91</td>
</tr>
<tr>
<td>Musil, F.</td>
<td>59</td>
</tr>
<tr>
<td>Mustafa, Himmat</td>
<td>34</td>
</tr>
<tr>
<td>Mustel, Ye. R.</td>
<td>51</td>
</tr>
<tr>
<td>Nyagkova, A.</td>
<td>57</td>
</tr>
<tr>
<td>Nyasnikov, L. L.</td>
<td>73</td>
</tr>
</tbody>
</table>

- N -

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nadezhin, V. M.</td>
<td>56</td>
</tr>
<tr>
<td>Nakabayashi, S.</td>
<td>68</td>
</tr>
<tr>
<td>Nakagawa, Y.</td>
<td>72</td>
</tr>
<tr>
<td>Nakano, H.</td>
<td>92</td>
</tr>
<tr>
<td>Nakata, Seibei</td>
<td>110</td>
</tr>
<tr>
<td>Narita, K.</td>
<td>92</td>
</tr>
<tr>
<td>Nashienas, Ye. P.</td>
<td>117</td>
</tr>
<tr>
<td>Naumann, D.</td>
<td>68</td>
</tr>
<tr>
<td>Naumov, A. P.</td>
<td>52</td>
</tr>
<tr>
<td>Naydenov, Petur</td>
<td>123</td>
</tr>
<tr>
<td>Nazarenko, V. A.</td>
<td>117</td>
</tr>
<tr>
<td>Nazaryan, A. Kh.</td>
<td>5</td>
</tr>
<tr>
<td>Nazaryev, S.</td>
<td>9</td>
</tr>
<tr>
<td>Neel, Louis</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neganov, B. S.</td>
<td>111</td>
</tr>
<tr>
<td>Neronićić, Predrag</td>
<td>22</td>
</tr>
<tr>
<td>Nestorescu, N.</td>
<td>64</td>
</tr>
<tr>
<td>Neuhauser, S.</td>
<td>67</td>
</tr>
<tr>
<td>Neukus, Gerhard</td>
<td>127</td>
</tr>
<tr>
<td>Neweskyj, W.</td>
<td>67</td>
</tr>
<tr>
<td>Nezhentsev, P. L.</td>
<td>184</td>
</tr>
<tr>
<td>Nguyen Kh. Phat</td>
<td>35</td>
</tr>
<tr>
<td>Nguyen Minh</td>
<td>38</td>
</tr>
<tr>
<td>Nguyen Leong</td>
<td>32</td>
</tr>
<tr>
<td>Nguyen Leong Bang</td>
<td>30</td>
</tr>
<tr>
<td>Nguyen Ngoc Triu</td>
<td>50</td>
</tr>
<tr>
<td>Nguyen Tao</td>
<td>50</td>
</tr>
<tr>
<td>Nguyen Truong Khoot</td>
<td>64</td>
</tr>
<tr>
<td>Nguyen Tuan</td>
<td>38</td>
</tr>
<tr>
<td>Nguyen Van Chieu</td>
<td>50</td>
</tr>
<tr>
<td>Nguyen Van Hieu</td>
<td>36</td>
</tr>
<tr>
<td>Nguyen Van Tao</td>
<td>39</td>
</tr>
<tr>
<td>Nhat Tan</td>
<td>12</td>
</tr>
<tr>
<td>Nica-Sirbesti 'Sebin'</td>
<td>70</td>
</tr>
<tr>
<td>Niecikowski, Jarzy</td>
<td>78</td>
</tr>
<tr>
<td>Nielsen, J.</td>
<td>59</td>
</tr>
<tr>
<td>Niedieck, J.</td>
<td>93</td>
</tr>
<tr>
<td>Nikulin, Ye. S.</td>
<td>73</td>
</tr>
<tr>
<td>Nobihiro-Nakahashi</td>
<td>108</td>
</tr>
<tr>
<td>Noguchi, T.</td>
<td>68</td>
</tr>
<tr>
<td>Nong Quoc Chan</td>
<td>38</td>
</tr>
<tr>
<td>Norden, Alberko</td>
<td>74</td>
</tr>
<tr>
<td>Normuratov, F.</td>
<td>114</td>
</tr>
<tr>
<td>Nosovitskiy, A. I.</td>
<td>76</td>
</tr>
<tr>
<td>Novak, V.</td>
<td>67</td>
</tr>
<tr>
<td>Novasartov, N. T.</td>
<td>73</td>
</tr>
<tr>
<td>Novatskiy, Vitekid</td>
<td>116</td>
</tr>
<tr>
<td>Novgordov, A.</td>
<td>1</td>
</tr>
<tr>
<td>Novoselov, V. S.</td>
<td>93</td>
</tr>
<tr>
<td>Nunez Jimenez, Antonio</td>
<td>45</td>
</tr>
<tr>
<td>Nuriyev, Z.</td>
<td>47</td>
</tr>
<tr>
<td>Nykhaylov, V. V.</td>
<td>137</td>
</tr>
<tr>
<td>Obelliane, J.</td>
<td>71</td>
</tr>
<tr>
<td>Oborneick, T.</td>
<td>27</td>
</tr>
<tr>
<td>Obst, K. H.</td>
<td>90</td>
</tr>
<tr>
<td>Oelschläger, W.</td>
<td>62</td>
</tr>
<tr>
<td>Ohitsuiki, N.</td>
<td>91</td>
</tr>
<tr>
<td>Ohuchina, H.</td>
<td>91</td>
</tr>
<tr>
<td>Okulov, V. J.</td>
<td>111</td>
</tr>
<tr>
<td>Ol'kheva, R.</td>
<td>1</td>
</tr>
<tr>
<td>Oniciu, Luan</td>
<td>22</td>
</tr>
<tr>
<td>Onacak, Oto</td>
<td>26</td>
</tr>
<tr>
<td>Onopriyenko, V. A.</td>
<td>78</td>
</tr>
<tr>
<td>Orlov, N.</td>
<td>1</td>
</tr>
<tr>
<td>Orlova, T. G.</td>
<td>55</td>
</tr>
<tr>
<td>Orudzhueva, I. M.</td>
<td>78</td>
</tr>
<tr>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Orzel, E.</td>
<td>93</td>
</tr>
<tr>
<td>Osada, H.</td>
<td>98</td>
</tr>
<tr>
<td>Osinov, G.</td>
<td>14</td>
</tr>
<tr>
<td>Ostrogskiy, L. A.</td>
<td>46</td>
</tr>
<tr>
<td>Ostrovskiy, I. V.</td>
<td>106</td>
</tr>
<tr>
<td>Ottonberg, Ye. V.</td>
<td>79</td>
</tr>
<tr>
<td>Ovakimov, A. G.</td>
<td>96</td>
</tr>
<tr>
<td>Ovcharov, M.</td>
<td>96</td>
</tr>
<tr>
<td>Ovchinnikov, F. Ya.</td>
<td>75</td>
</tr>
<tr>
<td>Ovchinnikov, V. V.</td>
<td>57</td>
</tr>
<tr>
<td>Ovezberdyev, Ch.</td>
<td>10</td>
</tr>
<tr>
<td>Oyane, M.</td>
<td>91</td>
</tr>
<tr>
<td>Pacztem</td>
<td>89</td>
</tr>
<tr>
<td>Pacuraru, Andrei</td>
<td>21</td>
</tr>
<tr>
<td>Pajestka, Josef</td>
<td>19</td>
</tr>
<tr>
<td>Pak, Yu.</td>
<td>2</td>
</tr>
<tr>
<td>Paletskis, Yu.</td>
<td>8</td>
</tr>
<tr>
<td>Paleyev, L. I.</td>
<td>114</td>
</tr>
<tr>
<td>Palkiewcz, Jozef</td>
<td>19</td>
</tr>
<tr>
<td>Faller, A. M.</td>
<td>98</td>
</tr>
<tr>
<td>P‘an, Chi-luan</td>
<td>83</td>
</tr>
<tr>
<td>Panaitescu, G.</td>
<td>77</td>
</tr>
<tr>
<td>Panasenko, B. A.</td>
<td>98</td>
</tr>
<tr>
<td>Panferova, N. Ye.</td>
<td>58</td>
</tr>
<tr>
<td>Pankov, I.</td>
<td>6</td>
</tr>
<tr>
<td>Panetier, Raymond</td>
<td>66</td>
</tr>
<tr>
<td>Parent, Michel</td>
<td>46</td>
</tr>
<tr>
<td>Parfenov, R. G.</td>
<td>80</td>
</tr>
<tr>
<td>Parkhomenko, P. P.</td>
<td>94</td>
</tr>
<tr>
<td>Pashin, O. N.</td>
<td>11</td>
</tr>
<tr>
<td>Pasichnyy, V. V.</td>
<td>46</td>
</tr>
<tr>
<td>Passon, R.</td>
<td>119</td>
</tr>
<tr>
<td>Paton, B. Ye.</td>
<td>82</td>
</tr>
<tr>
<td>Pavinskiy, P. P.</td>
<td>116</td>
</tr>
<tr>
<td>Pavlov, B. Deyan</td>
<td>23</td>
</tr>
<tr>
<td>Pavlov, T. M.</td>
<td>79</td>
</tr>
<tr>
<td>Pavlova, V. S.</td>
<td>114</td>
</tr>
<tr>
<td>Pavlovskiy, I.</td>
<td>11</td>
</tr>
<tr>
<td>Pavoni, I.</td>
<td>93</td>
</tr>
<tr>
<td>Pavshits, Ye. A.</td>
<td>57</td>
</tr>
<tr>
<td>Pawlata, Stanislav</td>
<td>108</td>
</tr>
<tr>
<td>Pecheikin, I. M.</td>
<td>77</td>
</tr>
<tr>
<td>Pecchioli, Ugo</td>
<td>29</td>
</tr>
<tr>
<td>Pechatin, A. A.</td>
<td>54</td>
</tr>
<tr>
<td>Peiter, A.</td>
<td>89</td>
</tr>
<tr>
<td>Pejuskovic, Bozidar</td>
<td>64</td>
</tr>
<tr>
<td>Penev, Penko</td>
<td>16</td>
</tr>
<tr>
<td>Penski, Klaus</td>
<td>67</td>
</tr>
<tr>
<td>Perdijon, J.</td>
<td>84</td>
</tr>
<tr>
<td>Peredereyev, V.</td>
<td>95</td>
</tr>
<tr>
<td>Petretukhin, N. A.</td>
<td>69</td>
</tr>
<tr>
<td>Perin, A.</td>
<td>91</td>
</tr>
<tr>
<td>Pershina, P. A.</td>
<td>53</td>
</tr>
<tr>
<td>Petrivitsky, V.</td>
<td>9</td>
</tr>
<tr>
<td>Pervushin, A.</td>
<td>10</td>
</tr>
<tr>
<td>Peryshkin, Ye.</td>
<td>97</td>
</tr>
<tr>
<td>Peskovetskii, S. A.</td>
<td>73</td>
</tr>
<tr>
<td>Peptalozza, Luigi.</td>
<td>33</td>
</tr>
<tr>
<td>Pesyakova, V. B.</td>
<td>107</td>
</tr>
<tr>
<td>Petkovic, A.</td>
<td>77</td>
</tr>
<tr>
<td>Petrenkov, J.</td>
<td>24</td>
</tr>
<tr>
<td>Petros'evants, A. M.</td>
<td>122</td>
</tr>
<tr>
<td>Petrov, A.</td>
<td>4</td>
</tr>
<tr>
<td>Petrov, Boris</td>
<td>35</td>
</tr>
<tr>
<td>Petrov, M. F.</td>
<td>105</td>
</tr>
<tr>
<td>Petrov, W. P.</td>
<td>73</td>
</tr>
<tr>
<td>Petrovic, M.</td>
<td>52</td>
</tr>
<tr>
<td>Petrovic, Milan</td>
<td>49</td>
</tr>
<tr>
<td>Petrovic, Milan C.</td>
<td>49</td>
</tr>
<tr>
<td>Petryanov, I. G.</td>
<td>96</td>
</tr>
<tr>
<td>Petyakina, Ye. I.</td>
<td>82</td>
</tr>
<tr>
<td>Pevzer, S. B.</td>
<td>81</td>
</tr>
<tr>
<td>Pfu!!, B. Ye.</td>
<td>97</td>
</tr>
<tr>
<td>Pham: Minh</td>
<td>39</td>
</tr>
<tr>
<td>Pham: Sinh</td>
<td>39</td>
</tr>
<tr>
<td>Pickenpack, A.</td>
<td>17</td>
</tr>
<tr>
<td>Filipchuk, V.</td>
<td>47</td>
</tr>
<tr>
<td>Pilya, A., D.A.</td>
<td>111</td>
</tr>
<tr>
<td>Pimenov, A. Z.</td>
<td>86</td>
</tr>
<tr>
<td>Pita, Jorge</td>
<td>42</td>
</tr>
<tr>
<td>Pineiski, A. A.</td>
<td>100</td>
</tr>
<tr>
<td>Pircher, L.</td>
<td>62</td>
</tr>
<tr>
<td>Pierre, Jean</td>
<td>118</td>
</tr>
<tr>
<td>Pisarenko, G. S.</td>
<td>117</td>
</tr>
<tr>
<td>Fishchulin, I.</td>
<td>4</td>
</tr>
<tr>
<td>Viskarov, A. I.</td>
<td>58</td>
</tr>
<tr>
<td>Pitsch, W.</td>
<td>85</td>
</tr>
<tr>
<td>Plasil, Stanislav</td>
<td>23</td>
</tr>
<tr>
<td>Piatonov, C. M.</td>
<td>96</td>
</tr>
<tr>
<td>Pletnev, V. F.</td>
<td>76</td>
</tr>
<tr>
<td>Pobedimskiy, D. E.</td>
<td>65</td>
</tr>
<tr>
<td>Tobedonostcev, V.</td>
<td>95</td>
</tr>
<tr>
<td>Podskalsky, Z.</td>
<td>71</td>
</tr>
<tr>
<td>Podvalnyy, I. D.</td>
<td>24</td>
</tr>
<tr>
<td>Pele, H. J.</td>
<td>89</td>
</tr>
<tr>
<td>Tel'Visnev, A. N.</td>
<td>79</td>
</tr>
<tr>
<td>Pekrovskiy, Ye. I.</td>
<td>66</td>
</tr>
<tr>
<td>Polak, K.</td>
<td>33</td>
</tr>
<tr>
<td>Polezhayev, V.</td>
<td>12</td>
</tr>
<tr>
<td>Polikashin, A.</td>
<td>4</td>
</tr>
<tr>
<td>Polishchuk, I. A.</td>
<td>33</td>
</tr>
<tr>
<td>Politis, C.</td>
<td>88</td>
</tr>
<tr>
<td>Poljakova, V. A.</td>
<td>53</td>
</tr>
<tr>
<td>Polkovnikov, V. I.</td>
<td>94</td>
</tr>
<tr>
<td>Poltoraus, Ye. V.</td>
<td>65</td>
</tr>
<tr>
<td>Polychkov, A. Ye.</td>
<td>115</td>
</tr>
<tr>
<td>Polychkov, N. N.</td>
<td>96</td>
</tr>
<tr>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
</tr>
<tr>
<td>Pomanskiy, A. A.</td>
<td>112</td>
</tr>
<tr>
<td>Pomerantsev, N. M.</td>
<td>109</td>
</tr>
<tr>
<td>Pomerantsev, V.</td>
<td>9</td>
</tr>
<tr>
<td>Pomonti, Jean-Claude</td>
<td>37</td>
</tr>
<tr>
<td>Popescu, C.</td>
<td>104</td>
</tr>
<tr>
<td>Popko, Jerzy</td>
<td>48</td>
</tr>
<tr>
<td>Popov, M. Ye.</td>
<td>80</td>
</tr>
<tr>
<td>Popov, S.</td>
<td>9</td>
</tr>
<tr>
<td>Popovci, Lazar</td>
<td>22</td>
</tr>
<tr>
<td>Popovici, E.</td>
<td>104</td>
</tr>
<tr>
<td>Popovskiy, V. G.</td>
<td>96</td>
</tr>
<tr>
<td>Popriadukhin, A. P.</td>
<td>111</td>
</tr>
<tr>
<td>Potinov, Ye, I.</td>
<td>97</td>
</tr>
<tr>
<td>Potapenko, F.</td>
<td>9</td>
</tr>
<tr>
<td>Potap'yevskiy, A. G.</td>
<td>95</td>
</tr>
<tr>
<td>Povolotskiy, D. Ya.</td>
<td>79</td>
</tr>
<tr>
<td>Pozo, Alberto</td>
<td>50, 104</td>
</tr>
<tr>
<td>Pradzynski, B.</td>
<td>103</td>
</tr>
<tr>
<td>Prangishvili, I. V.</td>
<td>94</td>
</tr>
<tr>
<td>Pridantsev, M. V.</td>
<td>79</td>
</tr>
<tr>
<td>Prinzh, H.</td>
<td>75</td>
</tr>
<tr>
<td>Prinka, T.</td>
<td>87</td>
</tr>
<tr>
<td>Prod'homme, L.</td>
<td>118</td>
</tr>
<tr>
<td>Prokof'yev, M. A.</td>
<td>15</td>
</tr>
<tr>
<td>Prokof'yev, N.</td>
<td>13</td>
</tr>
<tr>
<td>Prokopenko, V.</td>
<td>80</td>
</tr>
<tr>
<td>Prot, A.</td>
<td>109</td>
</tr>
<tr>
<td>Protasov, V. F.</td>
<td>3</td>
</tr>
<tr>
<td>Pryadko, I. F.</td>
<td>80</td>
</tr>
<tr>
<td>Ptukhin, F. I.</td>
<td>69</td>
</tr>
<tr>
<td>Putin, V.</td>
<td>95</td>
</tr>
<tr>
<td>Putz, E.</td>
<td>87</td>
</tr>
<tr>
<td>Quarrell, A. G.</td>
<td>93</td>
</tr>
<tr>
<td>Reitz, M. J.</td>
<td>84</td>
</tr>
<tr>
<td>Renner, E.</td>
<td>17</td>
</tr>
<tr>
<td>Reus, Conrad*</td>
<td>31</td>
</tr>
<tr>
<td>Revel, J. B.</td>
<td>98</td>
</tr>
<tr>
<td>Rey de Castro, Jaime</td>
<td>42</td>
</tr>
<tr>
<td>Reznichenko, V. A.</td>
<td>79</td>
</tr>
<tr>
<td>Riboud, P. H.</td>
<td>85</td>
</tr>
<tr>
<td>Richard, L.</td>
<td>101</td>
</tr>
<tr>
<td>Rieszl, Miklos</td>
<td>19</td>
</tr>
<tr>
<td>Riypes, V. G.</td>
<td>54</td>
</tr>
<tr>
<td>Robbakh, S. E.</td>
<td>96</td>
</tr>
<tr>
<td>Rockas, R. A. D.</td>
<td>86</td>
</tr>
<tr>
<td>Rodinova, N. A.</td>
<td>54</td>
</tr>
<tr>
<td>Rodriguez, Javier</td>
<td>42</td>
</tr>
<tr>
<td>Rode, J. V.</td>
<td>73</td>
</tr>
<tr>
<td>Remcov, A. M.</td>
<td>51</td>
</tr>
<tr>
<td>Remcov, G. O.</td>
<td>55</td>
</tr>
<tr>
<td>Ross, A.</td>
<td>60</td>
</tr>
<tr>
<td>Rosiers, M. W.</td>
<td>54</td>
</tr>
<tr>
<td>Rosmanith, J. W.</td>
<td>55</td>
</tr>
<tr>
<td>Rossi, G. L.</td>
<td>91</td>
</tr>
<tr>
<td>Rössini, L.</td>
<td>64</td>
</tr>
<tr>
<td>Roud, Marine</td>
<td>74</td>
</tr>
<tr>
<td>Rotshteyn, A. E.</td>
<td>4</td>
</tr>
<tr>
<td>Rouileau, Emile</td>
<td>82</td>
</tr>
<tr>
<td>Roux, Wilhem</td>
<td>61</td>
</tr>
<tr>
<td>Rozenberg, M. G.</td>
<td>7</td>
</tr>
<tr>
<td>Rozgory, Tanja</td>
<td>25</td>
</tr>
<tr>
<td>Rozhkov, V. V.</td>
<td>115</td>
</tr>
<tr>
<td>Rozov, V. A.</td>
<td>47</td>
</tr>
<tr>
<td>Rozitalski, Z.</td>
<td>120</td>
</tr>
<tr>
<td>Rutinov, A. N.</td>
<td>112</td>
</tr>
<tr>
<td>Rudnev, K.</td>
<td>62</td>
</tr>
<tr>
<td>Ruchova, A. F.</td>
<td>59</td>
</tr>
<tr>
<td>Ruff, S.</td>
<td>61</td>
</tr>
<tr>
<td>Rukhodze, A. A.</td>
<td>122</td>
</tr>
<tr>
<td>Ruklisch, M. P.</td>
<td>56</td>
</tr>
<tr>
<td>Rusin, L.</td>
<td>1</td>
</tr>
<tr>
<td>Rusinirow, Icn</td>
<td>49</td>
</tr>
<tr>
<td>Rusnak, Milan</td>
<td>77</td>
</tr>
<tr>
<td>Rozicka, Jaromir</td>
<td>17</td>
</tr>
<tr>
<td>Rozantsev, B.</td>
<td>3</td>
</tr>
<tr>
<td>Rubin, J.</td>
<td>76</td>
</tr>
<tr>
<td>Rychkova, Z. A.</td>
<td>63</td>
</tr>
<tr>
<td>Rychlik, Tadeuz</td>
<td>20</td>
</tr>
<tr>
<td>Ryki, L.</td>
<td>24</td>
</tr>
<tr>
<td>Rutov, S. M.</td>
<td>116</td>
</tr>
<tr>
<td>Ryzhkov, L.</td>
<td>5</td>
</tr>
<tr>
<td>Ryzhkov, V. M.</td>
<td>109</td>
</tr>
<tr>
<td>Ryzko, Stanisliaw</td>
<td>108</td>
</tr>
<tr>
<td>Last Name</td>
<td>First Name</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Saakyan, I. M.</td>
<td>.</td>
</tr>
<tr>
<td>Sabri, Husayn Dhu al Figar</td>
<td>.</td>
</tr>
<tr>
<td>Safonov, A.</td>
<td>.</td>
</tr>
<tr>
<td>Sahleau, Victor</td>
<td>.</td>
</tr>
<tr>
<td>Salishcheva, N.</td>
<td>.</td>
</tr>
<tr>
<td>Salminen, Arne</td>
<td>.</td>
</tr>
<tr>
<td>Salmon, Ch.</td>
<td>.</td>
</tr>
<tr>
<td>Salomon, I.</td>
<td>.</td>
</tr>
<tr>
<td>Samoilhin, Yu. M.</td>
<td>.</td>
</tr>
<tr>
<td>Samsonov, G. V.</td>
<td>.</td>
</tr>
<tr>
<td>Samsonov, V.</td>
<td>.</td>
</tr>
<tr>
<td>Sanchez Lalebret, Rafael</td>
<td></td>
</tr>
<tr>
<td>Sandomirskiy, M. M.</td>
<td>.</td>
</tr>
<tr>
<td>Sandru, I.</td>
<td>.</td>
</tr>
<tr>
<td>Sanin, P. I.</td>
<td>.</td>
</tr>
<tr>
<td>Sanz, G.</td>
<td>.</td>
</tr>
<tr>
<td>Saprykin, G. S.</td>
<td>.</td>
</tr>
<tr>
<td>Saqafi, Mohammad Taqi</td>
<td>.</td>
</tr>
<tr>
<td>Sarrak, V. A.</td>
<td>.</td>
</tr>
<tr>
<td>Sasaki, M.</td>
<td>.</td>
</tr>
<tr>
<td>Sasaki, T.</td>
<td>.</td>
</tr>
<tr>
<td>Savchik, V.</td>
<td>.</td>
</tr>
<tr>
<td>Savel'yev, G.</td>
<td>.</td>
</tr>
<tr>
<td>Savchenko, Yu.</td>
<td>.</td>
</tr>
<tr>
<td>Savichev, G.</td>
<td>.</td>
</tr>
<tr>
<td>Savichev, G.</td>
<td>.</td>
</tr>
<tr>
<td>Savina, S. S.</td>
<td>.</td>
</tr>
<tr>
<td>Savinsky, N.</td>
<td>.</td>
</tr>
<tr>
<td>Savitskii, Ye. M.</td>
<td>.</td>
</tr>
<tr>
<td>Savruckin, A. P.</td>
<td>.</td>
</tr>
<tr>
<td>Sayenko, N.</td>
<td>.</td>
</tr>
<tr>
<td>Sazhina, I. P.</td>
<td>.</td>
</tr>
<tr>
<td>Schebdat, F.</td>
<td>.</td>
</tr>
<tr>
<td>Scheel, H.</td>
<td>.</td>
</tr>
<tr>
<td>Scheidler, G. P.</td>
<td>.</td>
</tr>
<tr>
<td>Schenck, H.</td>
<td>.</td>
</tr>
<tr>
<td>Scherer, V.</td>
<td>.</td>
</tr>
<tr>
<td>Schiewe, G.</td>
<td>.</td>
</tr>
<tr>
<td>Schiopu, B.</td>
<td>.</td>
</tr>
<tr>
<td>Schlipkoeter, H. W.</td>
<td>.</td>
</tr>
<tr>
<td>Schmidt, A.</td>
<td>.</td>
</tr>
<tr>
<td>Schmidt, Siegfried</td>
<td>.</td>
</tr>
<tr>
<td>Schmitz, Franz</td>
<td>.</td>
</tr>
<tr>
<td>Schusskunberger, P.</td>
<td>.</td>
</tr>
<tr>
<td>Schoenherr, Siegfried</td>
<td>.</td>
</tr>
<tr>
<td>Schott, Ottfried</td>
<td>.</td>
</tr>
<tr>
<td>Schrader, H. J.</td>
<td>.</td>
</tr>
<tr>
<td>Schulz, W.</td>
<td>.</td>
</tr>
<tr>
<td>Schumacher, H.</td>
<td>.</td>
</tr>
<tr>
<td>Schussler, Wilhelm</td>
<td>.</td>
</tr>
<tr>
<td>Schutz, W.</td>
<td>.</td>
</tr>
<tr>
<td>Schwiete, H. E.</td>
<td>.</td>
</tr>
<tr>
<td>Sedykh, O. A.</td>
<td>.</td>
</tr>
<tr>
<td>Segre, G. J.</td>
<td>.</td>
</tr>
</tbody>
</table>

- 257 -
Strimba, V. F.
Silva, F.
Silvanov, Emil
Simo Ndongo, Laureano
Simpernitskaya, Ye. G.
Simonis, V.
Simonov, V.
Simonova, V. V.
Sindelka, I.
Simeonov, Joel
Simtvsya, N.
Siniakov, V. I.
Sirotkin, L. I.
Sisakyan, N. M.
Sklensky, B.
Skoczowski, S.
Skokov, I. V.
Skowronski, Boleslaw
Skvortsov, V.
Slepykh, V.
Slobotsov, V. Ye.
Smirenkin, G. N.
Smirnov, A. A.
Smirnov, L. N.
Smirnov, I.
Smirnov, V.
Smedlointsev, A. A.
Snobl, Josef
Sobolev, N. N.
Sochilina, A. S.
Sok, Cygmunt
Sokolov, G. A.
Sokolov, V. V.
Sole, Miroslav
Solis, Marta D.
Solomatov, V. I.
Solovyeva, L. V.
Soes, F.
Sorokin, L. S.
Soros, P.
Sosnin, C. M.
Souffrant, P.
Specker, H.
Spriano, Paolo
Spychalski, Marian
Squadrito, Raul
Srednikova, N. I.
Staats, G.
Stafleu, Marinus Dirk
Staicu, Florea
Staicu, L.
Stange, E.
Stankovsky, V.
Stankov, Vl.

Stark, I.
Stary, Vitezslav
Stefajanka, V. A.
Stefanescu, G.
Stefanovic, Nikola
Steffmann, R.
Steinberg, E. L.
Steinmetz, L.
Stel'makh, V. I.
Stenzel, A. G.
Stepanov, A. M.
Stepanova, M. G.
Stepinizewski, W.
Steshov, E.
Steuer, J.
Stockman, G.
Stojakovic, Luka
Stoiachev, Dobret
Stimut, Dimitur
Straus, H.
Streicherberger, G.
Strole, D.
Striganov, V. U.
Strongin, N.
Studnev, Yu. P.
Stukin, A. N.
Stumpf, H.
Stuoginite, A. V.
Subbotin, V. I.
Sucebeau, Ch.
Sudakov, K. V.
Sukharev, V. V.
Suleymanova, F. G.
Sun Chia-Tsung
Sun Jen-Hsiiun
Sukirakov, V.
Sussi, P. L.
Svetlova, T. P.
Svetovidov, A. N.
Sverts, V.
Sviridov, M.
Svoyev, F. A.
Syroyezhkin, G.
Szabo, Belsa
Szamel, Lajos
Szczeclinski, Stefan
Szczepanscyk, Andrzej
Szczesnowiec, I.
Szegedi, Jozsef
Szwarc, Karol
Szyncler-Glowacki, W.
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabacek, Jan</td>
<td>17</td>
</tr>
<tr>
<td>Taborski, J.</td>
<td>93</td>
</tr>
<tr>
<td>Taiakalenko, V. S.</td>
<td>81</td>
</tr>
<tr>
<td>Takekoshi, Tadasu</td>
<td>110</td>
</tr>
<tr>
<td>Talibov, G.</td>
<td>2</td>
</tr>
<tr>
<td>Talier, C.</td>
<td>74</td>
</tr>
<tr>
<td>Tallos, Gyorgy</td>
<td>18</td>
</tr>
<tr>
<td>Tamara, A. M.</td>
<td>79</td>
</tr>
<tr>
<td>Tamayo, Gloria</td>
<td>41</td>
</tr>
<tr>
<td>Tamb, Robert M.</td>
<td>32</td>
</tr>
<tr>
<td>Tamura, K.</td>
<td>91</td>
</tr>
<tr>
<td>Tan, B. L.</td>
<td>60</td>
</tr>
<tr>
<td>Tanaka, M.</td>
<td>91</td>
</tr>
<tr>
<td>Tarantino, N. I.</td>
<td>109</td>
</tr>
<tr>
<td>Tash, T.</td>
<td>59</td>
</tr>
<tr>
<td>Tatuzh, V. P.</td>
<td>114</td>
</tr>
<tr>
<td>Taubert, G.</td>
<td>88</td>
</tr>
<tr>
<td>Tchamda, Abbe</td>
<td>33</td>
</tr>
<tr>
<td>Tel'knsis, L.</td>
<td>73</td>
</tr>
<tr>
<td>Telyakovsky, S. A.</td>
<td>54</td>
</tr>
<tr>
<td>Ter-Martirosoyan, V. A.</td>
<td>113</td>
</tr>
<tr>
<td>Teruichiro Kubo</td>
<td>68</td>
</tr>
<tr>
<td>Tervoort, J. L. J.</td>
<td>84</td>
</tr>
<tr>
<td>Tetsuo Mamuro</td>
<td>110</td>
</tr>
<tr>
<td>Tetti, A.</td>
<td>63</td>
</tr>
<tr>
<td>Thooss, Waldfried</td>
<td>101</td>
</tr>
<tr>
<td>Tichovschi, Vladimir</td>
<td>76</td>
</tr>
<tr>
<td>Tikhomirov, Ongyan</td>
<td>16</td>
</tr>
<tr>
<td>Tikhonov, V.</td>
<td>47</td>
</tr>
<tr>
<td>Tikhonova, N. P.</td>
<td>115</td>
</tr>
<tr>
<td>Tissot, R.</td>
<td>60</td>
</tr>
<tr>
<td>Toader, N.</td>
<td>93</td>
</tr>
<tr>
<td>Todorovic, Aleksandar</td>
<td>28</td>
</tr>
<tr>
<td>Todorovic, Gordana</td>
<td>28</td>
</tr>
<tr>
<td>Tokareva, S. A.</td>
<td>65</td>
</tr>
<tr>
<td>Tokuda, M.</td>
<td>91</td>
</tr>
<tr>
<td>Toman, J.</td>
<td>16</td>
</tr>
<tr>
<td>Tomas, G.</td>
<td>97</td>
</tr>
<tr>
<td>Tomashevich, L. V.</td>
<td>52</td>
</tr>
<tr>
<td>Tomov, I.</td>
<td>94</td>
</tr>
<tr>
<td>Tonchev, Stoyan</td>
<td>107</td>
</tr>
<tr>
<td>Tonolini, F.</td>
<td>110</td>
</tr>
<tr>
<td>Tonornin, L. N.</td>
<td>7</td>
</tr>
<tr>
<td>Topitygin, I. N.</td>
<td>51</td>
</tr>
<tr>
<td>Torin, Yu. A.</td>
<td>70</td>
</tr>
<tr>
<td>Toska, Hak1</td>
<td>27</td>
</tr>
<tr>
<td>Toudoire, B.</td>
<td>110</td>
</tr>
<tr>
<td>Toussaint, J.</td>
<td>121</td>
</tr>
<tr>
<td>Tran Huy Lieu</td>
<td>38</td>
</tr>
<tr>
<td>Tran Thanh Minh</td>
<td>110</td>
</tr>
<tr>
<td>Tran Viet</td>
<td>39</td>
</tr>
<tr>
<td>Trebes, Norbert</td>
<td>90</td>
</tr>
<tr>
<td>Trebici, V.</td>
<td>21</td>
</tr>
</tbody>
</table>

Tremilloh, Berhard          66
Tret'yakov, P. Ye.          81
Triger, S. A.               112
Trinh Van Thinh             50
Troadec, J. P.              31
Troshin, A. M.              76
Trubitsyn, N. A.            122
Trueb, Henri                32
Trunov, V. B.               73
Ts'ao, Sheng-an             106
Tsarev, Y. A.               99
Taikalanko, V. S.           127
Tsetova, T.                 7
Tsopp, L. Ye.               111
Tsvigun, S.                 9
Tsytoy, V. N.               111, 115
Tse Quynh                   50
Tulupov, P. Ye.             115
Turov, A.                   55
Turov'skiy, I. A.           65
Tyzheln'nikov, Ye. M.       120
Tychinskii, V. R.           115
Tyrmikov, A. P.             54
Tyrtikov, A. P.             57
Tyutyunin', G. V.           79

Ubarov, Yu.                 3
Uffermann, H.               89
Uglad, F. G.                55
Ul'ezlo, T. V.              56
Ul'yanovskii, R.            33
Ushakov, P. F.             112
Ushakov, P. I.             58, 70
Uzilevskaya, P. Sh.         47

Vaciasov, Ye. P.            46
Vaclavik, V.                84
Vagabova, A. A.            78
Vakin, S. A.                107
Vasla, Vladimir             17
Van Thanh                   39
Varga, Gyorgy               19
Vartanyan, A. M.            8
Vasilevskiy, V. N.          81
Vasileyev, V. F.           77
Vasil'iev, V. G.           59
Vedeshenkov, V. A.         72
Vedyushenko, V. T.         7
Verley, Etienne             29
Vermishev, Yu. Kh.          106
Vershigora, A. Yu.          59

- 259 -
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venceslik, J.</td>
<td>83</td>
</tr>
<tr>
<td>Vexler, Erica</td>
<td>42</td>
</tr>
<tr>
<td>Vidal, J. P.</td>
<td>84</td>
</tr>
<tr>
<td>Vidart, L.</td>
<td>61</td>
</tr>
<tr>
<td>Vieira, Gilberto</td>
<td>45</td>
</tr>
<tr>
<td>Vien Chi</td>
<td>38</td>
</tr>
<tr>
<td>Vinogradov, B. V.</td>
<td>69</td>
</tr>
<tr>
<td>Vinogradov, N. I.</td>
<td>111</td>
</tr>
<tr>
<td>Vipper, A. B.</td>
<td>82</td>
</tr>
<tr>
<td>Vitanovsky, Vaclav</td>
<td>23</td>
</tr>
<tr>
<td>Vivanenko, M. I.</td>
<td>65</td>
</tr>
<tr>
<td>Vladimirov, Yu. V.</td>
<td>8</td>
</tr>
<tr>
<td>Vladvets, V. V.</td>
<td>58</td>
</tr>
<tr>
<td>Vo Hong Cuong</td>
<td>40</td>
</tr>
<tr>
<td>Vc Nguyen (Gia)</td>
<td>38</td>
</tr>
<tr>
<td>Vogel, R.</td>
<td>52</td>
</tr>
<tr>
<td>Volk, R.</td>
<td>62</td>
</tr>
<tr>
<td>Volkov, A. A.</td>
<td>6</td>
</tr>
<tr>
<td>Volkov, A. F.</td>
<td>72, 94</td>
</tr>
<tr>
<td>Volkov, A. Ye.</td>
<td>80</td>
</tr>
<tr>
<td>Volokitin, A.</td>
<td>78</td>
</tr>
<tr>
<td>Volynets, F. K.</td>
<td>115</td>
</tr>
<tr>
<td>Von Fircks, J.</td>
<td>89</td>
</tr>
<tr>
<td>Von Oppel, Ch.</td>
<td>88</td>
</tr>
<tr>
<td>Vorob'ev, A. A.</td>
<td>78, 79</td>
</tr>
<tr>
<td>Voskodenskiy, D. I.</td>
<td>71</td>
</tr>
<tr>
<td>Voss, A.</td>
<td>8</td>
</tr>
<tr>
<td>Voss, K.</td>
<td>71</td>
</tr>
<tr>
<td>Vrascaric, Borivoj</td>
<td>64</td>
</tr>
<tr>
<td>Vrtel, J.</td>
<td>84</td>
</tr>
<tr>
<td>Vu Ho</td>
<td>39</td>
</tr>
<tr>
<td>Vukovic, Dusan</td>
<td>22</td>
</tr>
<tr>
<td>Vuksanovic, Radoslav</td>
<td>22</td>
</tr>
<tr>
<td>Vulis, L. A.</td>
<td>113, 116</td>
</tr>
<tr>
<td>Vygodskiy, S. K.</td>
<td>83</td>
</tr>
<tr>
<td>Vzorov, I. K.</td>
<td>109</td>
</tr>
</tbody>
</table>

**W**

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wahnschaffe, E.</td>
<td>88</td>
</tr>
<tr>
<td>Walde, H.</td>
<td>74</td>
</tr>
<tr>
<td>Walyasek, K.</td>
<td>113</td>
</tr>
<tr>
<td>Wampach, J.</td>
<td>84</td>
</tr>
<tr>
<td>Wanatabe, S.</td>
<td>103</td>
</tr>
<tr>
<td>Wang, Chin-lun</td>
<td>83</td>
</tr>
<tr>
<td>Wang Wen-ling</td>
<td>71</td>
</tr>
<tr>
<td>Wassermann, G.</td>
<td>89</td>
</tr>
<tr>
<td>Weber, G.</td>
<td>90</td>
</tr>
<tr>
<td>Weinberg, H.</td>
<td>89</td>
</tr>
<tr>
<td>Weingartner, W.</td>
<td>88</td>
</tr>
<tr>
<td>Wen Yu-p'ing</td>
<td>37</td>
</tr>
<tr>
<td>Werner, Walter</td>
<td>18</td>
</tr>
<tr>
<td>Wiegand, H.</td>
<td>89</td>
</tr>
<tr>
<td>Wiegel, P.</td>
<td>67</td>
</tr>
<tr>
<td>Wilner, Meir</td>
<td>35</td>
</tr>
</tbody>
</table>

**Z**

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zache, G. I.</td>
<td>52</td>
</tr>
<tr>
<td>Zaharia, I.</td>
<td>49</td>
</tr>
<tr>
<td>Zahi, I.</td>
<td>21</td>
</tr>
<tr>
<td>Zaidel, A. H.</td>
<td>106</td>
</tr>
<tr>
<td>Zairov, K.</td>
<td>55</td>
</tr>
<tr>
<td>Zakharov, W.</td>
<td>2, 11</td>
</tr>
<tr>
<td>Zakharov, V.</td>
<td>1</td>
</tr>
<tr>
<td>Zaklyazminskiy, L. A.</td>
<td>116</td>
</tr>
<tr>
<td>Zaluzhnyi, V.</td>
<td>2</td>
</tr>
<tr>
<td>Zamylovskiy, Z.</td>
<td>83</td>
</tr>
<tr>
<td>Zanotti, Livio</td>
<td>41</td>
</tr>
<tr>
<td>Zarovnyy, V. P.</td>
<td>72</td>
</tr>
<tr>
<td>Zasjavskiy, I. D.</td>
<td>54</td>
</tr>
<tr>
<td>Zasjavskiy, S. Ya.</td>
<td>55</td>
</tr>
</tbody>
</table>
Zaslavskiy, Yu. S.  82
Zatloukal, E.  24
Zav'yalov, S. N.  96
Zayid, Muhammad  35
Zaytsev, M.  1
Zbezdov, A.  97
Zborovskiy, A. V.  81, 82
Zednik, V.  84
Zeil, W.  71
Zel'dich, N. L.  96
Zel dovich, Ya. B.  51
Zelentsov, A.  13
Zelkowski, J.  77
Zemrich, G.  90
Zenchenko, N.  5
Zergiia, P. K.  94
Zeytlyonok, N. A.  55
Zhame, Lili  22
Zharov, V. L.  57
Zhavoronkov, A. A.  57
Zhdanov, V.  12
Zhelyazkov, I. I.  112
Zhevatkin, S. A.  52
Zhevtjak, A.  2
Zhikarev, P. I.  7
Zhidylev, A.  13
Zhuk, M. S.  73
Zhuk, P.  15
Zhuravlev, N.  9
Ziyadullayev, S. K.  2
Zmuda, A.  49
Zobel, Gunter  119
Zona, Rinaldo  110
Zotov, M.  1
Zotov, Yu. V.  57
Zotova, V. M.  96
Zubchamnowa, V. N.  113
Zubkov, Yuriy  14
Zuchowicz, K.  121
Zuehike, Wolfgang  17
Zuyev, G. V.  57
Zvykov, A.  12
Zyryanov, P. S.  111
7 September 2004

Ms. Roberta Schoen  
Deputy Director for Operations  
Defense Technical Information Center  
7725 John J. Kingman Road  
Suite 0944  
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the “Non-NIS” referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral Branch

Enclosures:
1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)
Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed by CIA and declassification guidance has been provided.

<table>
<thead>
<tr>
<th>OGA Doc ID</th>
<th>Job Num</th>
<th>Box</th>
<th>Fldr</th>
<th>Doc</th>
<th>Doc ID</th>
<th>Document Title</th>
<th>Pub Date</th>
<th>Pages</th>
<th>Decision</th>
<th>Proc Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD0845247</td>
<td>78-03109A</td>
<td>60</td>
<td>1</td>
<td>1</td>
<td>130</td>
<td>Consolidated Translation Survey Through 31 October 1968</td>
<td>10/31/1968</td>
<td>252</td>
<td>Approved For Release</td>
<td>3/25/2004</td>
</tr>
</tbody>
</table>

Wednesday, August 25, 2004