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13. ABSTRACT

This report covers the second quarter of 1971 with the major yield of information coming from the approximately 30 periodicals known to report the most advanced and interesting findings in Soviet laser technology. This as well as the previous three reports covers the following topics: (1) laser research -- solid state, liquid, gas and chemical lasers; UV; components; nonlinear optics; spectroscopy of laser materials; short pulse generation; crystal growing; and general theory; (2) laser applications -- biological effects, communications, computer technology, holography, instrumentation, materials processing, and plasma generation.

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Introduction

This bibliography has been compiled by the staff of Informatics Tisco, Inc. in response to a continuing contractual assignment to monitor current Soviet-bloc developments in the quantum electronics field. Of all material reviewed, the major yield has been from the approximately 30 periodicals which are know to report the most advanced and interesting findings in Soviet laser technology.

The period covered is the second quarter of 1971, and includes all significant laser-related articles received by us during that interval. The structure and selection criteria are basically those used in the preceding reports.

For convenience we generally have abbreviated source names; a source abbreviation list and an author index are included. Unless indicated by a parenthesized Reference Journal (RZh) notation, all cited sources are available at Informatics Tisco, Inc.

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I. BASIC RESEARCH

A. SOLID STATE LASERS

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a. Ruby

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IV. SOURCE ABBREVIATIONS

DAN ArmSSR	-	Akademiya nauk Armyanskoy SSR. Doklady
DAN BSSR	-	Akademiya nauk Belorusskoy SSR. Doklady
DAN SSSR	-	Akademiya nauk SSSR. Doklady
FAiO	-	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FiKhOM	-	Fizika i khimiya obrabotki materialov
F-KhMM	-	Fiziko-khimicheskaya mekhanika materialov
FTP	-	Fizika i tekhnika poluprovodnikov
FTT	-	Fizika tverdogo tela
GiK	-	Geodeziya i kartografiya
IAN B	-	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IAN Fiz	-	Izvestiya AN SSSR. Seriya fizicheskaya
I-FZh	-	Inzhenerno-fizicheskiy zhurnal
IT	-	Izmeritel'naya tekhnika
IVUZ Fiz	-	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Radioelektr	-	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	-	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
KhVE	-	Khimiya vysokikh energiy

Kristall	-	Kristallografiya
KiK	-	Kinetika i kataliz
KSpF	-	Kratkiye soobshcheniya po fizike
MiTOM	-	Metallovedeniye i termicheskaya obrabotka materialov
NM	-	Akademiya nauk SSR. Izvestiya. Neorganicheskiye materialy
NTO SSSR	-	Nauchno-tekhnicheskiye obshchestva SSSR
OiS	-	Optika i spektroskopiya
OMP	-	Optiko-mekhanicheskaya promyshlennost'
Otkr izobr	-	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
PSS	-	Physica Status Solidi
PTE	-	Pribory i tekhnika eksperimenta
RiE	-	Radiotekhnika i elektronika
RZhF	-	Referativnyy zhurnal. Fizika
RZhGeod	-	Referativnyy zhurnal. Geodeziya i aeros"yemka
RZhKh	-	Referativnyy zhurnal. Khimiya
RZhMetrolog	-	Referativnyy zhurnal. Metrologiya i izmeritel'naya tekhnika
RZhRadiot	-	Referativnyy zhurnal. Radiotekhnika
Sb 1	-	Sbornik. Materialy I Respublikskoy konferentsii molodykh uchenykh. Institut fizikoy AN BSSR, 1970. Sektsiya fiziki. Minsk, 1970.
TKiT	-	Tekhnika kino i televideniya

TVT	-	Teplofizika vysokikh temperatur
UFN	-	Uspekhi fizicheskikh nauk
UFZh	-	Ukrainskiy fizicheskiy zhurnal
VAN	-	Akademiya nauk SSSR. Vestnik
VDNKh SSSR	-	Informatsionnyy byulleten' VDNKh SSSR
VLU	-	Leningradskiy universitet. Vestnik. Fizika, khimiya
VMU	-	Moskovskiy universitet. Vestnik. Seriya fizika, astronomiya
ZhETF	-	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	-	Pis'ma v zhurnal eksperimental'noy i teoreticheskoy fiziki
Zh NiP Fik	-	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPK	-	Zhurnal prikladnoy khimii
ZhPMTF	-	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	-	Zhurnal prikladnoy spektroskopii
ZhTF	-	Zhurnal tekhnicheskoy fiziki

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