### SELECTED BIBLIOGRAPHY II-Diamond Surface Chemistry

Key articles related to the surface chemistry of diamond crystals are presented in this 1993 update of an earlier compilation. The listings are arranged chronologically. The review extends up to mid-1993. This review will be useful to workers in the field of diamond film-growth chemistry even though the extensive film-growth literature has no been reviewed.
SELECTED BIBLIOGRAPHY II - DIAMOND SURFACE CHEMISTRY

Jian Wei, V.S. Smentkowski and J.T. Yates, Jr.

Surface Science Center
Department of Chemistry
University of Pittsburgh
Pittsburgh, PA 15260
Selected Bibliography II - Diamond Surface Chemistry

Jian Wei, V.S. Smentkowski and J.T. Yates, Jr.

Surface Science Center
Department of Chemistry
University of Pittsburgh
Pittsburgh, PA 15260

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>Diamond Surface Chemistry and Surface Structure</td>
<td>2-100</td>
</tr>
<tr>
<td>Category II</td>
<td>Interfacial Behavior of Diamond</td>
<td>101-112</td>
</tr>
<tr>
<td>Category III</td>
<td>Bulk Electronic and Physical Behavior</td>
<td>113-176</td>
</tr>
<tr>
<td>Category IV</td>
<td>Mechanical Applications</td>
<td>177-178</td>
</tr>
<tr>
<td>Category V</td>
<td>Electronic Applications</td>
<td>179-182</td>
</tr>
<tr>
<td>Category VI</td>
<td>Tribology</td>
<td>183-205</td>
</tr>
<tr>
<td>Category VII</td>
<td>Optical</td>
<td>206-213</td>
</tr>
<tr>
<td>Category VIII</td>
<td>Books</td>
<td>214-215</td>
</tr>
<tr>
<td>Category IX</td>
<td>Review and Bibliography</td>
<td>216-218</td>
</tr>
<tr>
<td>Category X</td>
<td>Conferences</td>
<td>219-221</td>
</tr>
<tr>
<td>Category XI</td>
<td>Popular Literature</td>
<td>222</td>
</tr>
</tbody>
</table>
Abstract

Key articles related to the surface chemistry of diamond crystals are presented in this 1993 update of an earlier compilation. The listings are arranged chronologically. The review extends up to mid-1993. This review will be useful to workers in the field of diamond film-growth chemistry even though the extensive film-growth literature has not been reviewed.

The search methods employed are listed below:

1. A computerized search of Chemical Abstracts was made from the period 1989 to mid-1993 using the keywords diamond (diamonds) and surface (surfaces).

2. Earlier papers were obtained from Bibliography I by V. Smentkowski and J.T. Yates, Jr., AFOSR Technical Report No. F49620-86-C-0125.

3. Additional papers were obtained by hand searching the references in Bibliography I.

4. Additional hand searching was done in references in the papers found in 1 above.

5. Key authors in the field of the surface science of diamond were identified and an additional search was performed by cross-searching the keyword diamond (diamonds) with the key authors.

More than 850 articles are listed.

(Upon request, an ASCII file of this bibliography can be provided)
Selected Bibliography II - Diamond Surface Chemistry

Jian Wei, V.S. Smentkowski and J.T. Yates, Jr.

Surface Science Center
Department of Chemistry
University of Pittsburgh
Pittsburgh, PA 15260

Abstract

Key articles related to the surface chemistry of diamond crystals are presented in this 1993 update of an earlier compilation. The listings are arranged chronologically. The review extends up to mid-1993. This review will be useful to workers in the field of diamond film-growth chemistry even though the extensive film-growth literature has not been reviewed.

The search methods employed are listed below:

1. A computerized search of Chemical Abstracts was made from the period 1989 to mid-1993 using the keywords diamond (diamonds) and surface (surfaces).

2. Earlier papers were obtained from Bibliography I by V. Smentkowski and J.T. Yates, Jr., AFOSR Technical Report No. F49620-86-C-0125.

3. Additional papers were obtained by hand searching the references in Bibliography I.

4. Additional hand searching was done in references in the papers found in 1 above.

5. Key authors in the field of the surface science of diamond were identified and an additional search was performed by cross-searching the keyword diamond (diamonds) with the key authors.

More than 850 articles are listed.
I. DIAMOND SURFACE CHEMISTRY & SURFACE STRUCTURE

AUTHOR: Haneman D.
TITLE: "Surface Structures and Properties of Diamond - Structure Semiconductors"
REF: 121 (1961) 1093

AUTHOR: Marsh J.B. and Farnsworth H.E.
TITLE: "Low-Energy Electron Diffraction Studies of (100) and (111) Surfaces of Semiconducting Diamond"
JNL: Surface Science
REF: 1 (1964) 3-21

AUTHOR: Evans T. and James P.F.
TITLE: "A Study of the Transformation of Diamond to Graphite"
JNL: Proc. R. Soc. Lond. A
REF: 277 (1964) 260

AUTHOR: Pugh D.
TITLE: "Surface States on the (111) Surface of Diamond"
JNL: Physical Review Letters
REF: 12 (1964) 390
AUTHOR: Lander J.J. and Morrison J.
TITLE: "Low Energy Electron Diffraction Study of the (111) Diamond Surface"
JNL: Surface Science
REF: 4 (1966) 241-246

AUTHOR: Sappok R. and Boehm H.P.
TITLE: "Chemistry of Diamond Surfaces. I. Heats of Wetting, and Electron Spin Resonance, and Infrared Spectra of the Surface Hydrides, Halides, and Oxides"
JNL: Carbon
REF: 6 (1968) 283

AUTHOR: Sappok R. and Boehm H.P.
TITLE: "Chemistry of Diamond Surfaces. II. Formation, Properties, and Structure of Surface Oxides"
JNL: Carbon
REF: 6 (1968) 573

AUTHOR: Thomas J.M., Evans E.L., Barbber M. and Swift P.
TITLE: "Determination of the Occupancy of Valence Bands in Graphite, Diamond and Less-ordered Carbons by X-Ray Photo-electron Spectroscopy"
REF: 67 (1971) 1875
AUTHOR: Runciman W.A. and Carter T.
TITLE: "High Resolution Infra-red Spectra of Diamond"
REF: 9 (1971) 315

AUTHOR: Bansal R.C., Vastola F.J. and Walker, Jr. P.L.
TITLE: "Kinetics of Chemisorption of Oxygen on Diamond"
JNL: Carbon
REF: 10 (1972) 443

AUTHOR: Theeten J.-B. and Dobrzynski L.
TITLE: "Simple Calculation of the Mean-Square Displacements of Bulk and Surface Atoms of Diamond-Structure Crystals"
JNL: Physical Review B
REF: 5 (1972) 1529

AUTHOR: Matsumoto S., Sato Y., Setaka N. and Goto M.
TITLE: "Mass Spectral Analysis of Thermally Desorbed Gases from Diamond Surfaces"
JNL: Chemistry Letters
REF: (1973) 1247-1250
TITLE: "X-Ray Photoemission Studies of Diamond, Graphite, and Glassy Carbon Valence Bands"
JNL: Physical Review B
REF: 9 (1974) 5268

AUTHOR: Egerton R.F. and Whelan M.J.
TITLE: "The Electron Energy Loss Spectrum and Band Structure of Diamond"
JNL: Philos. Mag.
REF: 30 (1974) 739

AUTHOR: Collins A.T.
TITLE: "Visible Luminescence from Diamond"
JNL: Industrial Diamond Review
REF: 34 (1974) 131

AUTHOR: Muda Y. and Hanawa T.
TITLE: "Study of Adsorption by the Extended Huckel Theory. Carbon Monoxide on Diamond (111) Surface"
JNL: Jpn. J. Appl. Phys., part 1
REF: 13 (6) (1974) 930
AUTHOR: Brookes C.A.
TITLE: "The Friction of Diamond at Elevated Temperatures and Its Interfacial Reactions with Steel"
JNL: Industrial Diamond Review
REF: 34 (1974) 21

AUTHOR: Cadman P., Scott J.D. and Thomas J.M.
TITLE: "Identification of Functional Groups on the Surface of a Fluorinated Diamond Crystal by Photoelectron Spectroscopy"
REF: (1975) 654

AUTHOR: Patel A. R. and Patel T. C.
TITLE: "The Natural Etching of Sub-Boundary Dislocations on (111) Diamond"
REF: 8 (pt2) (1975) 327

AUTHOR: Tabor D.
TITLE: "Some Physical Aspects of the Diamond Surface"
JNL: Diamond Res.
REF: (1975) 9
AUTHOR: Ciraci S., Batra I.P. and Tiller W.A.
TITLE: "Electronic Structure of the (111) Surface of Semiconductors"
JNL: Physical Review B
REF: 12 (1975) 5811

AUTHOR: Lurie P.G. and Wilson J.M.
TITLE: "A Study of the Diamond Surface Using Electron Spectroscopy"
JNL: Diamond Res.
REF: (1976) 26

AUTHOR: Evans S. and Thomas J.M.
TITLE: "The Chemical Nature of Ion-bombarded Carbon: A Photoelectron Spectroscopic Study of 'Cleaned' Surfaces of Diamond and Graphite"
JNL: Proc. R. Soc. Lond. A
REF: 353 (1977) 103-120

AUTHOR: Ciraci S. and Batra I.P.
TITLE: "Study of the Diamond (100) Surface Using the Self Consistent Field Extended Tight Binding Method"
JNL: Phys Rev. B
REF: 15(6) (1977) 3254
AUTHOR: Lurie P.G. and Wilson J.M.
TITLE: "The Diamond Surface I. The Structure of the Clean Surface and the Interaction with Gases and Metals"
JNL: Surface Science
REF: 65 (1977) 453

AUTHOR: Lurie P.G. and Wilson J.M.
TITLE: "The Diamond Surface II. Secondary Electron Emission"
JNL: Surface Science
REF: 65 (1977) 476

AUTHOR: Lurie P.G. and Wilson J.M.
TITLE: "The Diamond Surface III. Differential Cross Sections for Inelastic Scattering"
JNL: Surface Science
REF: 65 (1977) 499

AUTHOR: Cadman P., Scott J.D. and Thomas J.M.
TITLE: "The Fluorination of the Surfaces of Elemental Carbon I. - X-ray Photoelectron Spectroscopic Studies of Fluorinated Graphite"
JNL: Carbon
REF: 15 (1977) 75
AUTHOR: Matsumoto S., Kanda H., Sato Y. and Setaka N.

TITLE: "Thermal Desorption Spectra of the Oxidized Surfaces of Diamond Powders"

JNL: Carbon

REF: 15 (1977) 299

-----------------------------------------------

AUTHOR: Evans S. and Thomas J.M.

TITLE: "Surface Properties of Diamond - Some Recent Developments"

JNL: Diamond Res.

REF: (1978) 31

-----------------------------------------------

AUTHOR: Evans S.

TITLE: "Depth Profiles of Ion-induced Structural Changes in Diamond from X-ray Photoelectron Spectroscopy"

JNL: Proc. R. Soc. London A

REF: 360 (1978) 427

-----------------------------------------------

AUTHOR: Ihm J., Louie S.G. and Cohen M.L.

TITLE: "Self-consistent Pseudopotential Calculations for Ge and Diamond (111) Surfaces"

JNL: Phys. Rev. B

REF: 17 (2) (1978) 769

-----------------------------------------------
AUTHOR: Snyder L.C. and Wasserman Z.
TITLE: "Molecular SCF Calculations to Model (111) Surface States and Relaxation of Diamond"
JNL: Surface Science
REF: 71 (1978) 407-413

AUTHOR: Appelbaum J.A. and Hamann D.R.
TITLE: "Theory of Reconstruction Induced Subsurface Strain -Application to Si(100)"
JNL: Surface Science
REF: 74 (1978) 21-33

AUTHOR: Cadman P., Scott J.D. and Thomas J.M.
TITLE: "The Fluorination of the Surface of Elemental Carbon, II. Deposition and Stability of Fluorine Containing Species: X-ray Photoelectron Spectroscopic Studies of Fluorinated Graphite"
JNL: Surface and Interface Analysis
REF: 1(4) (1979) 115

AUTHOR: Matsumoto S. and Setaka N.
TITLE: "Thermal Desorption Spectra of Hydrogenated and Water Treated Diamond Powders"
JNL: Carbon
REF: 17 (1979) 485
AUTHOR: Verwoerd W.W. and Kok F.J.  
TITLE: "Relaxation and Reconstruction of Si and Diamond (111) Surfaces using X4H9 Clusters"  
JNL: Surface Science  
REF: 80 (1979) 89

AUTHOR: Agrawal B.K.  
TITLE: "Electronic Structure of Clean and Metal Chemisorbed Diamond (111) Surfaces"  
REF: 35 (1980) 971

AUTHOR: Cohen M.L.  
TITLE: "Comment on "Quantum Photo Yield of Diamond (111) - a Stable Negative - Affinity Emitter"  
JNL: Phys. Rev. B  
REF: 22 (1980) 1095

AUTHOR: Himpsel F.J., Eastman D.E. and van der Veen J.F.  
TITLE: "Summary Abstract: Electronic Surface Properties and Schottky Barriers for Diamond (111)"  
REF: 17 (1980) 1085
AUTHOR: Pate B.B., Spicer W.E., Ohia T. and Lindau I.
TITLE: "Electronic Structure of the Diamond (111)-(1x1) Surface: Valence Band Structure, Band Bending and Band Gap States"
JNL: J. Vac. Sci. Technol
REF: 17(5) (1980) 1087

AUTHOR: Pate B.B., Jupiter P.J., Lindau I. and Spicer W.E.
TITLE: "The Electronic and Atomic Structure of Diamond Surface and Effects of Hydrogen Termination"
REF: (1981)

AUTHOR: Gaigher E. and Verwoerd W.S.
TITLE: "Comparative Study of Reconstructed Silicon and Diamond (111) Surfaces Modeled by Small Clusters"
JNL: Surface Science
REF: 103 (1981) 338

AUTHOR: Verwoerd W.S.
TITLE: "A Study of the Dimer Bond on the Reconstructed (100) Surfaces of Diamond and Silicon"
JNL: Surface Science
REF: 103 (1981) 404-415
AUTHOR: Himpsel F.J., Eastman D.E., Heimann P. and van der Veen J.F.

TITLE: "Surface States on Reconstructed Diamond (111)"

JNL: Phys. Rev. B

REF: 24 (1981) 7270

-------------------------

AUTHOR: Matsumoto S., Sato Y. and Setaka N.

TITLE: "The Effect of Preceding Heat Treatment on Hydrogen Chemisorption of Diamond Powders"

JNL: Carbon


-------------------------------

AUTHOR: Moravec T.J. and Orent T.W.

TITLE: "Electron Spectroscopy of Ion Beam and Hydrocarbon Plasma Generated Diamondlike Carbon Beams"


REF: 18 (1981) 226

------------------------

AUTHOR: Pate B.B., Stefan P.M., Binns C., Jupiter P.J., Shek M.L., Lindau I. and Spicer W.E.

TITLE: "Formation of Surface States on the (111) Surface of Diamond"

JNL: J. Vac. Sci. Technol

REF: 19 (3) (1981) 349

------------------------------------
AUTHOR: Pepper S.V.
TITLE: "Electron Spectroscopy of the Diamond Surface"
REF: 38 (1981) 344

AUTHOR: Spitsyn B.V., Bouilov L.L. and Derjaguin B.V.
TITLE: "Vapor Growth of Diamond on Diamond and Other Surfaces"
JNL: J. Crystal Growth
REF: 52 (1981) 219

AUTHOR: Vidali G. and Cole M.W.
TITLE: "Long Range Interaction between a He Atom and a Semiconductor Surface"
JNL: Surface Science

AUTHOR: Verwoerd W.S.
TITLE: "The Adsorption of Hydrogen on the (100) Surfaces of Silicon and Diamond"
JNL: Surface Science
| AUTHOR | Pandey K.C. |
| TITLE | "New Dimerized Chain Model for the Reconstruction of the Diamond (111) - (2x1) Surface" |
| JNL | Phys. Rev. B |
| REF | 25 (1982) 4338 |

| AUTHOR | Armon H. and Sellschop J.P.F. |
| TITLE | "Angular Dependence of Electron-Energy-Loss Spectroscopy: Application to Diamond" |
| JNL | Physical Review B |
| REF | 26 (1982) 2389 |

| AUTHOR | Pandey K.C. |
| TITLE | "Reconstruction of Semiconductor Surfaces: Buckling, Ionicity, and π-Bonded Chains" |
| JNL | Phys. Rev. Lett |
| REF | 49 (1982) 223 |

| AUTHOR | Pepper S.V. |
| TITLE | "Transformation of the Diamond (110) Surface" |
| JNL | J. Vac. Sci. Technol |
| REF | 20 (2) (1982) 213 |
AUTHOR: Pate B.B., Hecht M.H., Binns C., Lindau I. and Spicer W.E.

TITLE: "Photoemission and Photon Stimulated Ion Desorption Studies of Diamond (111): Hydrogen"

JNL: J. Vac. Sci. Technol

REF: 21 (2) (1982) 364

AUTHOR: Pepper S.V.

TITLE: "Diamond (111) Studied by EELS in the Characteristic Loss Region"

JNL: Surface Science

REF: 123 (1) (1982) 47

AUTHOR: Waclawski B.J., Pierce D.T., Swanson N. and Celotta R.J.

TITLE: "Direct Verification of Hydrogen Termination of the Semicontact Diamond (111) Surface"

JNL: J. Vac. Sci. Technol

REF: 21 (2) (1982) 368

AUTHOR: Gordeev S.K. and Smirnov E.P.

TITLE: "Study of the Reaction of Titanium Tetrachloride with Diamond Preparations"


REF: 52 (1982) 1464
AUTHOR: Gordeev S.K., Smirrov E.P, Kol'sov S.I. and Aleskovskii V.B.

TITLE: "Reaction of Functional Groups in Substitution Reactions on a Diamond Surface"


REF: 262 (1982) 127

------

AUTHOR: Pate B.B. et. al

TITLE: "The Diamond (111) Surface: A Dilemma Resolved"

JNL: Physica 117 B & 118 B (Amsterdam)

REF: (1983) 783

------

AUTHOR: Barone V. and Del Re G.

TITLE: "Hybridization and Surface Relaxation in Diamond-like Crystals"

JNL: THEOCHEM.

REF: 11 (1983) 173

------

AUTHOR: Vanderbilt D. and Louie S.G.

TITLE: "A First Principles LCAO Study of Ideal and Reconstructed Diamond (111) (1x1) and (2x1) Surfaces"


REF: B1(3) (1983) 723
AUTHOR: Woods G.S. and Collins A.T.
TITLE: "Infrared Absorption Spectra of Hydrogen Complexes in Type I Diamond"
REF: 44 (1983) 471

AUTHOR: Vidali G., Cole M.W., Weinberg W.H. and Steele W.A.
TITLE: "Helium as a Probe of the (111) Surface of Diamond"
JNL: Phys. Rev. Lett
REF: 51(2) (1983) 118

AUTHOR: Vidali G. and Frankl D.R.
TITLE: "He-Diamond Interaction Probed by Atom Beam Scattering"
JNL: Phys. Rev. B
REF: 27(4) (1983) 2480

AUTHOR: Derry T.E., Madiba C.C.P. and Sellschop J.P.F.
TITLE: "Oxygen and Hydrogen on the Surface of Diamond"
REF: 218 (1983) 559-562
AUTHOR: Fink J., Müller-Heinzerling T. and Pflüger J.
JNL: Solid State Communications
REF: 47 (1983) 687-691

TITLE: "Etching of Diamond with Argon and Oxygen Beams"
JNL: J. Vac. Sci. Technol. A
REF: 2(2) (1984) 477

AUTHOR: Chadi D.J.
TITLE: "Multiple Bonding on C(111)-2x1 Surfaces: Surface Structural Determination from Energy Minimization"
JNL: J. Vac. Sci. Technol. A
REF: 2 (1984) 948

AUTHOR: Davis G., Collins A.T. and Spear P.
TITLE: "Sharp Infra-red Absorption Lines in Diamond"
REF: 49 (1984) 433
AUTHOR: Pate B.B., Oshima M., Silberman J.A., Ross G., Lindau I. and Spicer W.E.


JNL: J. Vac. Sci. Technol


---------------------------------------------

AUTHOR: Pate B.B.

TITLE: "Diamond Surface: Atomic and Electronic Structure"

JNL: Report, SSRL-84/04; Order No. DE84013518, 241 pp., Avail. NTIS


---------------------------------------------

AUTHOR: Yang W.S. and Jona F.

TITLE: "Missing Spots in Low-Energy Electron Diffraction Patterns"

JNL: Physical Review B

REF: 29 (1984) 899

---------------------------------------------

AUTHOR: Pate B.B.

TITLE: "Diamond Surface: Atomic and Electronic Structure"

JNL: From: Diss. Abstr. Int. 7
      (Avail. Univ. Microfilms Int., 280 pp., Order No. DA8412877)

REF: 45(3) (1984) 919

---------------------------------------------
AUTHOR: Vanderbiit D. and Louis S.G.
TITLE: "Total Energy Minimization for Diamond (111) Surfaces: Support for an Undimerized $\pi$ bonded Chain Reconstruction"
JNL: Phys. Rev. B
REF: 29(12) (1984) 7099

AUTHOR: Vanderbilt D. and Louie S.G.
TITLE: "Total Energies of Diamond (111) Surface Reconstructions by a Linear Combination of Atomic Orbitals Method"
JNL: Phys. Rev. B
REF: 30(10) (1984) 6118

AUTHOR: Dayan M. and Pepper S.V.
TITLE: "Study of the Auger Line Shape of Polyethylene and Diamond"

AUTHOR: Dovesi R., Pisani C., Roetti C., Ricart J.M. and Illas F.
TITLE: "Periodic MINDO/3 Study of the Unreconstructed (111) Surface of Diamond and of Hydrogen Chemisorption Thereon"
JNL: Surface Science
AUTHOR: Barone V., Lelj F., Russo N. and Abbate G.
TITLE: "Surface Relaxation and Reconstruction in Diamond-like Crystals"
JNL: Solid State Communications
REF: 49 (1984) 925-928

AUTHOR: Koma A. and Miki K.
TITLE: "Core Electron Excitation Spectra of Diamond, Graphite, and Glassy Carbon"
JNL: Appl. Phys. A

AUTHOR: Barone V., Lelj F., Russo N., Toscano M., Illas F. and Rubio J.
TITLE: "A Theoretical Study of Relaxation and Reconstruction of the (111) Diamond Surface"
JNL: Surface Science
REF: 162 (1985) 169

AUTHOR: Lowther J.E.
TITLE: "Hydrogen Adsorption on the (001) Diamond Surface"
REF: 56(2) (1985) 243
AUTHOR: Efremow N.N., Geis M.W., Flanders D. C., Lincoln G.A. and Economou N.P.
TITLE: "Ion Beam Assisted Etching of Diamond"
JNL: J. Vac. Sci. Technol
REF: B3(1) (1985) 416

AUTHOR: Pate B.B., Lindau I. and Spicer W.E.
TITLE: "Very Strong Lattice Coupling in Diamond at Photon Energies up to 1.5 eV above the Bandgap"
REF: (1985) 1181

AUTHOR: Vanderbilt D. and Louie S.G.
TITLE: "Specific Applications. Energy Minimization Calculations for Diamond (111) Surface Reconstructions"
REF: (1985) 29

AUTHOR: Zhurakovskii E.A. and Zaulichnyi Ya. V.
TITLE: "Quantum Yeild of the X-Ray Photoelectric Effect in the Region of the K Absorption Edge of Carbon and K Emission Spectra of Carbon in Graphite, Lonsdaleite, and Diamond"
JNL: Sov. Phys. -Solid State
REF: 27 (1985) 2081
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Morar J.F., Himpsel F.J., Hollinger G., Hughes G. and Jordan J.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Observation of a C-1s Core Excitation in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review Letters</td>
</tr>
<tr>
<td>REF:</td>
<td>54 (1985) 1960</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Gordeev S.K. and Zhukova N.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Basic Functional Groups of the Diamond Surface&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Kolloid. Z.</td>
</tr>
<tr>
<td>REF:</td>
<td>50 (5) (1986) 988</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Rothschild M., Arnone C. and Ehrlich D.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Excimer-laser Etching of Diamond and Hard Carbon Films by Direct Writing and Optical Projection&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>4 (1986) 310</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Pate B.B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;The Diamond Surface: Atomic and Electronic Structure&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Surface Science</td>
</tr>
<tr>
<td>REF:</td>
<td>165 (1986) 83</td>
</tr>
</tbody>
</table>
AUTHOR: Morar J.F., Himpsel F.J., et. al
TITLE: "Carbon 1s Excitation Studies of Diamond (111). I. Surface Core Levels"
JNL: Phys. Rev. B
REF: 33(2) (1986) 1340

---------------------------------------------

AUTHOR: Morar J.F., Himpsel F.J., et. al
TITLE: "Carbon 1s Excitation Studies of Diamond (111). II. Unoccupied Surface States"
JNL: Phys. Rev. B
REF: 33(2) (1986) 1346

---------------------------------------------

AUTHOR: Barone V., Lelj F., Russo N., Toscano M., Illas F. and Rubio J.
TITLE: "Nonempirical Cluster-model Study of the Chemisorption of Atomic Hydrogen on the (111) Surface of Diamondlike Crystals"
JNL: Phys. Rev. B.
REF: 34 (1986) 7203

---------------------------------------------

AUTHOR: Derry T.E., Smit L. and van der Veen J.F.
TITLE: " Ion Scattering Determination of the Atomic Arrangement at Polished Diamond (111) Surfaces Before and After Reconstruction"
JNL: Surface Science
REF: 167 (1986) 502
AUTHOR: Mizokawa Y., Miyasato T., Nakamura S., Geib K.M. and Wilmsen C.W.
TITLE: "Comparison of the C KLL First-Derivative Auger Spectra from XPS and AES Using Diamond, Graphite, SiC and Diamond-Like-Carbon Films"
JNL: Surface Science
REF: 182 (1987) 431-438

AUTHOR: DeVries R.C.
TITLE: "Synthesis of Diamond under Metastable Conditions"
REF: 17 (1987) 161

AUTHOR: Morar J.F.
TITLE: "Highly Resolution Synchrotron Excited Soft X-ray Core Level Spectroscopy at NSLS"
REF: 24-25 (1987) 410

AUTHOR: Badziag P. and Verwoerd W.S.
TITLE: "MNDO Analysis of the Oxidized Diamond (100) Surface"
JNL: Surface Science
REF: 183 (1987) 469
AUTHOR: Hager J., Flytzanis C. and Walther H.
TITLE: "Dynamics and Topography in Molecular Beam Scattering on Surfaces: a Comparative Study on Diamond and Graphite"
REF: 55 (1987) 274

AUTHOR: Dovesi R., Pisani C., Roetti C. and Ricart J.M.
TITLE: "Periodic MINDO/3 Study of the Reconstructed (111) Surface of Diamond"
JNL: Surface Science
REF: 185 (1987) 120-124

AUTHOR: Yamada R.
TITLE: "Chemical Sputtering of Sintered Diamond Compacts and Diamond"
JNL: J. Vac. Sci. Technol
REF: A 5(4) (1987) 2222

AUTHOR: Mizokawa Y., Miyasato T., Nakamura S., Geib K.M. and Wilmsen C.W.
TITLE: "The C KLL First-derivative X-Ray Photoelectron Spectroscopy Spectra as a Fingerprint of the Carbon State and the Characterization of Diamondlike Carbon Films"
JNL: J. Vac. Sci. Technol. A
REF: 5 (1987) 2809
AUTHOR: Kitamura M., Sugiura C. and Muramatsu S.
TITLE: "X-Ray-Absorption Near-Edge-Structure Study of Diamond: A Multiple-Scattering Approach"
JNL: Solid State Communications

AUTHOR: Tsuda M., Nakajima M. and Oikawa S.
TITLE: "The Importance of the Positively Charged Surface for the Epitaxial Growth of Diamonds at Low Pressure"
JNL: Jpn. J. Appl. Phys., Part 2
REF: 26 (1987) L527

AUTHOR: Danon A. and Amirav A.
TITLE: "Kinetic Energy Induced Surface Dissociative Ionization"
REF: 86 (1987) 4708

AUTHOR: Ramaker D.E. and Hutson F.L.
TITLE: "Experimental Evidence for Antiferromagnetic Spin Ordering on the (111) - (2 x 1) Surface of Diamond"
JNL: Solid State Communications
REF: 63 (1987) 335-339
AUTHOR: Anisichkin V.F. and Mal'Kov I. Yu.
TITLE: "Thermodynamic Stability of an Ultrafine Diamond Phase"
JNL: Fiz. Goreniya Vzryva

AUTHOR: Danon A., Kolodney E. and Amirav A.
TITLE: "Dissociation and Ionization in Hyperthermal l-Iodopropane-Diamond Scattering"
JNL: Surface Science

AUTHOR: Badziag P. and Verwoerd W.S.
TITLE: "Cluster Modeling of the (2x1) Chain Reconstruction of the Diamond (111) Surface"
JNL: Surface Science
REF: 194(3) (1988) 535

AUTHOR: Bechstedt F. and Reichardt D.
TITLE: "Total Energy Minimization for Surfaces of Covalent Semiconductors C, Si, Ge, and α-Sn I. (111)2X1 Surfaces"
REF: 202 (1988) 58
AUTHOR: Chen I.
TITLE: "A Modeling of Diamond Film Growth"
REF: 64(7) (1988) 3742

AUTHOR: Bechstedt F. and Reichardt D.
TITLE: "Total Energy Minimization for Surfaces of Covalent Semiconductors C, Si, Ge, and α-Sn II. (100)2×1 Surfaces"
REF: 202 (1988) 83

AUTHOR: Harris S.J., Weiner A.M. and Perry T.A.
TITLE: "Measurements of Stable Species Present during Filament-assisted Diamond Growth"
REF: 53 (1988) 1605

AUTHOR: Comelli G., Stoehr J., Jark W. and Pate B. B.
TITLE: "Extended X-ray-absorption Fine-structure Studies of Diamond and Graphite"
JNL: Phys. Rev. B.
REF: 37(9) (1988) 4383
AUTHOR: Comelli G., Stoehr J., Robinson C.J. and Jark W.
TITLE: "Structural Studies of Argon-Sputtered Amorphous Carbon Films by Means of Extended X-Ray-Absorption Fine Structure"
JNL: Physical Review B
REF: 38 (1988) 7511

AUTHOR: Flytzanis C., Kuze H., Chatelet M., Hager J. and Walther H.
TITLE: "Impact of Topography on Molecular-Beam Scattering on Surfaces: The NO - Diamond Case"
JNL: Phys. Rev. Lett

AUTHOR: Gildenblat G.Sh., Grot S.A., Wronski C.R., Badzian A.R., Badzian T. and Messier R.
TITLE: "Electrical Characteristics of Schottky Diodes Fabricated Using Plasma Assisted Chemical Vapor Deposited Diamond Films"

TITLE: "Changes in the Electrical Conductivity of Diamond Powder during Surface Graphitization"
JNL: Sverkhtverd. Mater.
REF: (2) (1988) 32
AUTHOR: Frenklach M. and Spear K.E.
TITLE: "Growth Mechanism of Vapor-deposited Diamond"
REF: 3 (1988) 133

AUTHOR: Danon A. and Amirav A.
TITLE: "Surface-molecule Electron Transfer: Molecular Iodine-diamond Scattering at 1-12 eV"
REF: 61(26) (1988) 2961

TITLE: "Removal of Residual Carbon Materials from Diamond"
JNL: Jpn. Kokai Tokkyo Koho.
REF: (1988)

AUTHOR: Hamza A. V., Kubiak G. D. and Stulen R. H.
TITLE: "The Role of Hydrogen on the Diamond Carbon (111)-(2x1) Reconstruction"
JNL: Surface Science
AUTHOR: Kubiak G. D. and Kolasinski K. W.

TITLE: "Summary Abstract: Characterization of Empty States on C(111) (Diamond) (2x1) via Angle-resolved Two-photon Photoemission"

JNL: J. Vac. Sci. Technol. A

REF: 6(3) (1988) 814

---------------------------------------------

AUTHOR: Sowa E.C., Kubiak G.D., Stulen R.H. and van Hove M.

TITLE: "Summary Abstract: Structural Analysis of the Diamond c(111)-(2x1) Reconstructed Surface by Low Energy Electron Diffraction"

JNL: J. Vac. Sci. Technol. A

REF: 6(3) (1988) 832

---------------------------------------------

AUTHOR: Kirovskaya I. A.

TITLE: "Surface Properties of Diamond-Like Semiconductor. Chemical Composition of the Surface"

JNL: (Izd-vo Irkutskogo Univ.: Irkutsk, USSR)

REF: (1988) 167

---------------------------------------------

AUTHOR: Kitahata M. and Wasa K.

TITLE: "Plasma Etching of Diamond"

JNL: Jpn. Kokai Tokkyo Koho

REF: (1988)
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Hsu W. L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Chemical Erosion of Graphite by Hydrogen Impact: A Summary of the Database Relevant to Diamond Film Growth&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>J. Vac. Sci. Technol. A</td>
</tr>
<tr>
<td>REF:</td>
<td>6(3, Pt. 2) (1988) 1803</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Kvaskov V. B. and Gorbachev V. V.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;On the Efficiency of Photoemission from the (111) Surface of Diamond with Negative Electron Affinity&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Fiz. Tekh. Poluprovodn. (Leningrad)</td>
</tr>
<tr>
<td>REF:</td>
<td>22(3) (1988) 514</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Machlin E. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;On the Stabilization of Diamond Relative to Graphite by Surfaces&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>3(5) (1988) 958</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Tsuda M., Nakajima M. and Oikawa S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Epitaxial Growth Mechanism of Diamond Crystal in CH₄-H₂ Plasma&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>108 (1988) 5780</td>
</tr>
</tbody>
</table>
AUTHOR: Huang D., Frencklach M. and Maroncelli M.
TITLE: "Energetics of Acetylene-Addition Mechanism of Diamond Growth"
REF: 92 (1988) 6379

-----------------------------------------------

AUTHOR: Maguire H. G., Derry T. E., Brooks W. S., Sellschop J. P. F. and Kamo M.
REF: 84(8) (1988) 696

-----------------------------------------------

AUTHOR: Namba H., Masuda M. and Kuroda H.
TITLE: "Electronic States of 2x1 Reconstructed Surfaces of Diamond(111) Studied by UPS and EELS"

-----------------------------------------------

AUTHOR: Novikov N. V., Aleshin V. G., Smekhov A. A., Shishkin V. A. and Shul'zhenko A. A.
TITLE: "Effect of Surface Composition on Diamond Polycrystal Properties"
REF: 300(5) (1988) 1122
AUTHOR: Kamo M., Y. to H. and Sato Y.
TITLE: "Epitaxial Growth of Diamond on Diamond Substrate by Plasma Assisted CVD"
REF: 33-34 (1988) 553

AUTHOR: Nozhkina A. V.
TITLE: "Effect of Metals on the Phase Transformation of Diamond into Graphite"
JNL: Sverkhtverd. Mater.
REF: (3) (1988) 11

AUTHOR: Ong C. K., Tan A. K. and Tan H. S.
TITLE: "The Edge Free Energy of an Atomically Smooth Diamond Surface"
REF: 21(19) (1958) 3655

AUTHOR: Rabalais W. and Kasi S.
TITLE: "Growth of Thin Chemically Bonded Diamondlike Films by Ion Beam Deposition"
JNL: Science
REF: 239 (1988) 624
AUTHOR: Rockett A.
TITLE: "Monte Carlo Simulations of the Growth of Diamond-Structure Semiconductors and Surface Reflected Electron-beam Intensities during Molecular-beam Epitaxy"
JNL: J. Vac. Sci. Technol., B
REF: 6(2) (1988) 763

AUTHOR: Russo N., Toscano M., Amodeo P. and Barone V.
TITLE: "Nonempirical Cluster Model Study of the On-top Chemisorption of Fluorine and Chlorine on Carbon(111) Surface"
REF: 65(9) (1988) 945

AUTHOR: Shurkhal V. V., Umanski V. P., Lavrinenko I. A. and Naidich Yu. V.
TITLE: "Effect of Hydrogen on the Adhesion of Metallic Coatings to Diamond"
JNL: Adgeziya i kontak t. Vzaimodeistvie Rasplavov Kiev
REF: (1988) 116
From: Ref Zh., Metall. 1989 Abstr. No. 6E434

AUTHOR: Spear K. E., Frenklach M., Badzian A., Badzian T. and Messier R.
TITLE: "Vapor Deposition of Crystalline Diamond"
REF: 9(9-10) (1988) 1095

37
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHOR</td>
<td>Abyzov A. M. and Smirnov E. P.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITLE</td>
<td>&quot;Chromatographic Spectra of Thermal Desorption of Carbon Monoxide, Carbon Dioxide, and Water from Graphite and Diamond&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REF</td>
<td>30(4) (1989) 906</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Sommer M., Mui K. and Smith F.W.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Thermodynamic Analysis of the Chemical Vapor Deposition of Diamond Films&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Solid State Commun.</td>
</tr>
<tr>
<td>REF</td>
<td>69 (1989) 775</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Barone V., Abbate G., Russo N. and Toscano M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Interaction of Atomic Hydrogen with the (111) and (100) Surfaces of Diamond-like Crystals&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>48 (1989) 69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Belton D. N., Harris S. J., Schmieg S. J. and Weiner A. M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;In Situ Characterization of Diamond Nucleation and Growth by XPS&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>34(2) (1989) 517</td>
</tr>
</tbody>
</table>
AUTHOR: Frenklach M.
TITLE: "The Role of Hydrogen in Vapor Deposition of Diamond"
REF: 65(12) (1989) 5142

AUTHOR: Belton D.N., Harris S.J., Schmieg S.J., Weiner A.M. and Perry T.A.
TITLE: "In situ Characterization of Diamond Nucleation and Growth"
REF: 54 (1989) 416

TITLE: "X-ray Absorption Fine Structure of Diamond Films Grown by Chemical Vapor Depositions"
REF: 55 (10) (1989) 957

AUTHOR: Belton D. N. and Schmieg S. J.
TITLE: "Loss of Epitaxy During Diamond Film Growth on Ordered Nickel (100)"
REF: 66(9) (1989) 4223
AUTHOR: Hamza A.V. and Kubiak G.D.
TITLE: "Adsorption of NO on Diamond C(111) - (2x1) by Band Gap Excitation"
REF: 7(5) (1989) 1165

TITLE: "A Tensiometric Study of Diamond (111) and (110) Faces"
JNL: J. Colloid Interface Sci.
REF: 130(2) (1989) 347

AUTHOR: Hsu D.S.Y. and Turner N.H.
TITLE: "Fluorination of Diamond(111) Single Crystal Surfaces by XeF₂"
JNL: 4th SDIO/IST - ONR Diam. Tech. Initiative Symposium
REF: July 1989

AUTHOR: Janssen G., Van Enckevort W. J. P. and Giling L.J.
TITLE: "CVD Growth of Diamond: The Multiple Role of Atomic Hydrogen"
AUTHOR: Jones B. L.
TITLE: "Bonding Diamond to Diamond by Chemical Vapor Deposition"
REF: (1989)

AUTHOR: Kawada K., Miyamoto I., Hiraki A., Kawarada H. and Nishimura K.
TITLE: "Cleaning of Surfaces of Crystalline Materials"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

AUTHOR: Kimock F. M., Hoover D. S., Garg D., Dyer P. N., Iampietro R. L., Monk V. A. and Tsai W.
TITLE: "Aspects of Filament-assisted Deposition of Polycrystalline Diamond"
REF: 89-12 (1989) 536

AUTHOR: Komaki K., Yamamoto I. and Fujimaki T.
TITLE: "Diamond Synthesis by Chemical Vapor Deposition"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oki T., Okido M., Ando M. and Sugie Y.</td>
<td>&quot;Synthesis of Diamond Thin Film on Silicon Monocarbide Substrate by Thermal Chemical Vapor Deposition Process&quot;</td>
<td>Shigen to Sozai</td>
<td>105(2) (1989) 205</td>
</tr>
</tbody>
</table>
AUTHOR: Russo N.
TITLE: "On the Reactivity of Diamond-like Semiconductor Surfaces"
REF: 48 (1989) 809

AUTHOR: Sandhu G. S. and Chu W. K.
TITLE: "Reactive Ion Etching of Diamond"

AUTHOR: Sato Y.
TITLE: "Gas Phase Synthesis of Diamond"
JNL: Denki Kagaku Oyobi Kogyo Butsuri Kagaku
REF: 57 (5) (1989) 360

AUTHOR: Takata Y., Edamatsu K., Yokoyama T., Seki K., Tohnan M., Okada T. and Ohta T.
TITLE: "Xanes and Raman Spectroscopic Studies of Diamond Films Synthesized by Hot Filament CVD"
JNL: Jpn. J. Appl. Phys. Part 2
AUTHOR: Tamor M.A., Wu C.H., Carter R.O. and Lindsay N.E.

TITLE: "Pendant Benzene in Hydrogenated Diamond-like Carbon"


REF: 55(14) (1989) 1388

AUTHOR: Toscano M. and Russo N.

TITLE: "Nitric Oxide Adsorption on (111) and (001) Surfaces of Diamond-like Crystals: A Theoretical Study on Model Finite Clusters"


REF: 48 (1989) 893

AUTHOR: Verwoerd W. S. and Badziag P.

TITLE: "Atomic Cluster Calculations of Semiconductor Surface Structure"


REF: 12 (1) (1989) 1c

AUTHOR: Zhukova L. A., Ovcharenko V. M. and Kravtsov M. A.

TITLE: "Scanning Electron Diffraction Patterns for Diamond - Lattice Single Crystals"

JNL: Poverkhnost

REF: (11) (1989) 126
AUTHOR: Badziag P., Verwoerd W.S., Ellis W.P. and Greiner N.R.
TITLE: "Nanometer-sized Diamonds are More Stable than Graphite"
JNL: Nature
REF: 343(6255) (1990) 244

AUTHOR: Uedono A. and Tanigawa S.
TITLE: "Slow Positrons Used as a Probe for the Detection of Defects under Surfaces and Interfaces"
JNL: Hyomen Gijutsu
REF: 41 (1990) 355

AUTHOR: Knight D.S., Weimer R., Pilione L. and White W.B.
TITLE: "Surface Enhanced Raman Spectroscopy of Chemical Vapor Deposited Diamond Films"
REF: 56 (1990) 1320

TITLE: "Study of Cover-deposited Chromium on Diamond and Graphite Single Crystal Surfaces"
JNL: Wuli Xuebao
REF: 39 (1990) 963
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
</table>
AUTHOR: Bechstedt F. and Reichardt D.

TITLE: "Calculation of Surface-induced Core-level Shifts for Covalent Semiconductors Carbon, Silicon, Germanium, and α-tin II. (100) 2x1 Surfaces"


REF: 157 (1990) 567

---


TITLE: "In-situ Characterization of Thin Polycrystalline Diamond Film Quality by Thermal Wave and Raman Techniques"


REF: 162 (1990) 273

---

AUTHOR: Williams B.E., Asbury D.A. and Glass J.T.

TITLE: "Surface Analysis of Diamond Nucleation on Silicon and Electron Microscopy of the Diamond/Silicon Interface"

JNL: NATO ASI Ser., Ser. E.

REF: 185 (1990) 169

---

AUTHOR: Martynova L.M. and Nikitin Yu. I.

TITLE: "The Colloidal-chemical and Surface Properties of the Synthetic Diamond Powders and Their Aqueous Dispersions"

JNL: Kolloidn. Zh.

REF: 52 (1990) 295
AUTHOR: Joshi A., Nimmagadda R. and Herriott J.
TITLE: "Oxidation Kinetics of Diamond, Graphite, and Chemical Vapor Deposited Diamond Films by Thermal Gravimetry"
JNL: J. Vac. Sci. Technol. A
REF: 8 (1990) 2137

AUTHOR: Jeng D.G., Tuan H.S., Salot R.F. and Fricano J.
TITLE: "Thin Film Al/Diamond Schottky Diode over 400V Breakdown Voltage"
REF: 68 (1990) 5902

AUTHOR: Fujimori N., Nakahata H. and Imai T.
TITLE: "Properties of Boron-doped Epitaxial Diamond Films"
JNL: Jpn. J. Appl. Phys., Part 1
REF: 29 (1990) 824

AUTHOR: Wang Y., Hoffman R.W. and Angus J.C.
TITLE: "Electron Energy-loss Spectral Analysis of Diamond and Diamond-like Carbon Films"
JNL: J. Vac. Sci. Technol. A
REF: 8 (1990) 2226
AUTHOR: Brenner D.W.
TITLE: "Empirical Potential for Hydrocarbons for Use in Simulating the Chemical Vapor Deposition of Diamond Films"
JNL: Phys. Rev. B
REF: 42 (1990) 9458

---

AUTHOR: Belton D.N. and Schmieg S.J.
TITLE: "Electron Spectroscopic Identification of Carbon Species Formed during Diamond Growth"
JNL: J. Vac. Sci. Technol. A
REF: 8 (1990) 2353

---

AUTHOR: Naidich Yu.V., Shurkhal V.V. and Umanskii V.P.
TITLE: "Weakening of Diamond-Metal Bond by Hydrogen"
REF: 1 (1990) 69

---

TITLE: "Deposition of Diamond Films at Low Pressures and Their Characterization by Positron Annihilation, Raman, Scanning Electron Microscopy, and X-ray Photoelectron Spectroscopy"
REF: 56 (1990) 1781

TITLE: "Orientation-dependent Nitrogen Incorporation on Vicinals on Synthetic Diamond Cube Growth Surfaces"

JNL: J. Cryst. Growth

REF: 100 (1990) 354

---------------------------------------------------------------

AUTHOR: Inuzuka T.

TITLE: "Molecular Design of Surface and Thin Films, 10: Diamond Thin Films"

JNL: Kyoritsu Shuppan Co., Ltd.: Tokyo, Japan

REF: (1990)

---------------------------------------------------------------

AUTHOR: Builov L.L., Konov V.I., Pimenov S.M., Spitsyn B.V. and Chapliev N.I.

TITLE: "Pulsed Carbon Dioxide-laser Interaction with Diamond Films"

JNL: Poverkhnost

REF: 6 (1990) 128

---------------------------------------------------------------

AUTHOR: Belton D.N. and Schmieg S.J.

TITLE: "States of Surface Carbon during Diamond Growth on Platinum"


REF: 233 (1990) 131

---------------------------------------------------------------
AUTHOR: Atyaksheva L.F. and Emel'yanova G.I.
TITLE: "Interaction of Ozone with Different Carbon Modifications"
REF: 31 (1990) 21

AUTHOR: Girard C., Maghezzi S. and Van Labeke D.
TITLE: "Interaction between a Spherical Probe and an Atomic Lattice: Implication for Atomic Force Microscopy on Graphite and Diamond"
REF: 234 (1990) 181

AUTHOR: Koizumi S., Murakami T., Inuzuka T. and Suzuki K.
TITLE: "Epitaxial Growth of Diamond Thin Films on Cubic Boron Nitride (111) Surfaces by D.C. Plasma Vapor Deposition"
REF: 57 (1990) 563

AUTHOR: Kushkhov Kh. B., Shapoval V.I. and Baraboshkin A.N.
TITLE: "Surface Conductivity Phenomenon of Diamond during Contact with an Ionic Melt"
REF: 312 (1990) 1405
AUTHOR: Harris S.J.
TITLE: "Mechanism for Diamond Growth from Methyl Radicals"
REF: 56 (1990) 2298

AUTHOR: Freedman A. and Stinespring C. D.
TITLE: "Fluorination of Diamond (100) by Atomic and Molecular Beams"
REF: 57(12) (1990) 1194

AUTHOR: Matsuo Y., Vach H., Chatelet M., Haeger J., Roth C., Flytzanis C. and Walther H.
TITLE: "Elementary Processes in the Scattering of Nitric Oxide Molecules from a Diamond Surface"
REF: 93 (1990) 4368

AUTHOR: Mehandru S.P. and Anderson A.B.
TITLE: "Adsorption and Bonding of $C_1H_x$ and $C_2H_y$ on Unreconstructed Diamond (111). Dependence on Coverage and Coadsorbed Hydrogen"
REF: 5 (1990) 2286
AUTHOR: Valone S.M., Trkula M. and Laia J.R.
TITLE: "Possible Behavior of a Diamond (111) Surface in Methane/Hydrogen Systems"
REF: 5 (1990) 2296

AUTHOR: Hamza A.V., Kubiak G.D. and Stulen R.H.
TITLE: "Hydrogen Chemisorption and the Structure of the Diamond Carbon (100)-(2x1) Surface"
REF: 237 (1990) 35

AUTHOR: Johnson C.E., Hasting M.A.S. and Weimer W.A.
TITLE: "Thermogravimetric Analysis of the Oxidation of CVD Diamond Films"
REF: 5 (1990) 2320

AUTHOR: Hoffman A., Paterson P.J.K. and Prawer S.
TITLE: "Comparison of the Effect of Argon and Hydrogen Ion Bombardment on the Diamond (100) Surface as Studied by AES and EELS"
REF: B52 (1990) 63
AUTHOR: Chu C.J., D'Evelyn M.P., Hauge R.H. and Margrave J.L.
TITLE: "Mechanism of Diamond Film Growth by Hot-filament CVD: Carbon-13 Studies"
REF: 5 (1990) 2405

AUTHOR: Tapraeva F.M., Pushkin A.N., Kulakova I.I., Rudenko A.P., Elagin A.A. and Tikhomirov S.V.
TITLE: "Functional Groups on a Diamond Surface under Different Condition of Modification by Gases"
REF: 64 (1990) 2445

AUTHOR: Aleshin V.G., Smekhnov A.A., Bogatyreva G.P. and Kruk V.B.
TITLE: "Chemistry of Diamond Surfaces (Khimiya Proverkhnosti Alma za)"
JNL: Naukova Dumka Kiev, USSR
REF: (1990)

AUTHOR: Makal'skii V.I., Loktev V.F., Stoyanova I.V., Kalinkin A.S., Litvak G.S., Moroz E.M. and Likholobov V.A.
TITLE: "Modification of the Surfaces of Ultrafine Diamonds"
REF: (1990) 48-54
AUTHOR: Burushkina T.N., Aleinikov V.G., Donster B.B. and Savv'vin G.I.

TITLE: "Chemical Modification of a Diamond Surface By Ozone"


REF: (1990) 41-8

-----------------------------------------------

AUTHOR: Stampfli P. and Bennemann K.H.

TITLE: "Theory for the Laser-induced Instability of the Diamond Structure of Silicon, Germanium, and Carbon"


REF: 35 (1-4) (1990) 161-4

-----------------------------------------------

AUTHOR: Smekhnov A.A., Bogatyrev A.A. and Kuzenkov S.P.

TITLE: "Some Characteristics of a Surface Study of Diamonds by Auger Spectroscopy"


REF: (1990) 4-10

-----------------------------------------------

AUTHOR: Tapraeva F.M., Pushkin A.N., Kulakova I.I. and Rudenko A.P.

TITLE: "Effect of Methane Modification of Diamond on Its Oxidation in the Presence of Metal Catalyst"


REF: 64 (1990) 3135
AUTHOR: Pederson M. R., Jackson K. A. and Pickett W. E.
TITLE: "Energetics and Geometries for Hydrocarbon Radicals on the Diamond Surface"

AUTHOR: Sun B., Zhang Q., Qi S., Xie K. and Lin Z.
TITLE: "Study of a Diamond Film Surface by High-resolution EELS (HREELS)"
JNL: Zhenkong Kexue Yu Jishu
REF: 11(6) (1991) 394-400

AUTHOR: Dallek S., Kabacoff L. and Norr M.
TITLE: "Oxidation Kinetics of Type 2A Natural Diamond (100) and (111) Surfaces by TG"
JNL: Thermochim. Acta
REF: 192 (1991) 321

AUTHOR: Gao Q., Hu Y., Lin T., Lin Z. and Peng X.
TITLE: "Mechanism of Metalization on Diamond Surface - Physical Mechanism of Carbide Formation on Diamond Surface"
REF: 7 (1991) 359
AUTHOR: Frenklach M. and Wang H.
TITLE: "Detailed Surface and Gas-phase Chemical Kinetics of Diamond Deposition"
JNL: Phys. Rev. B
REF: 43 (1991) 1520

AUTHOR: Hoffman A., Prawer S. and Folman M.
REF: 58 (1991) 361

AUTHOR: Cong Y., Collins R.W., Epps G.F. and Windischmann H.
TITLE: "Spectroellipsometry Characterization of Optical Quality Vapor-deposited Diamond Thin Film"
REF: 58 (1991) 819

AUTHOR: Mori Y., Kawarada H. and Hiraki A.
TITLE: "Properties of Metal/Diamond Interfaces and Effects of Oxygen Adsorbed onto Diamond Surface"
REF: 58 (1991) 940
AUTHOR: Graham R.J., Moustakas T.D. and Disko M.M.
TITLE: "Cathodoluminescence Imaging of Defects and Impurities in Diamond Films Grown by Chemical Vapor Deposition"
REF: 69 (1991) 3212

AUTHOR: Page M. and Brenner D.W.
TITLE: "Hydrogen Abstraction from a Diamond Surface. ab initio Quantum Chemical study with Constrained Isobutane as a Model"
REF: 113 (1991) 3270

AUTHOR: Huang D. and Frenklach M.
TITLE: "Potential Energy Calculations of Diamond Growth by Methyl Radicals"
REF: 95 (1991) 3692

AUTHOR: Mitlin S.M., Pushkin A.N. and Rudenko A.P.
TITLE: "Mechanism of the Catalytic Activity of Potassium Hydroxide for the Oxidation of Diamond and Graphite by Molecular Oxygen"
REF: 65 (1991) 351
AUTHOR: Mowrey R.C., Brenner D.W., Dunlap B.I., Mintmire J.W. and White C.T.

TITLE: "Simulations of Buckminsterfullerence (C60) Collisions with a Hydrogen-terminated Diamond (111) Surface"


REF: 95 (1991) 7138

----------------------------------------

AUTHOR: Pederson M.R., Jackson K.A. and Pickett W.E.

TITLE: "Local-density-approximation-based Simulations of Hydrocarbon Interactions with Applications to Diamond Chemical Vapor Deposition"

JNL: Phys. Rev. B

REF: 44 (1991) 3891

----------------------------------------

AUTHOR: Abyzov A.M. and Smirnov E.P.

TITLE: "Study of the Interactions of Nitrous Oxide with Graphite and Diamond in the Pulse Regime"


REF: 65 (1991) 652

----------------------------------------


TITLE: "Surface Topography and Nucleation of Chemical Vapor Deposition Diamond Films on Silicon by Scanning Tunneling Microscopy"


REF: 9 (1991) 914

----------------------------------------
AUTHOR: Kurihara N.I., Hirabayashi K., Suzuki K., Ichihara M. and Takeuchi S.
TITLE: "Epitaxial Growth of Graphite Layer on (111) Surface of Vapor-deposited Diamond"
REF: 69 (1991) 6360

TITLE: "Observation of Surface Modification and Nucleation during Deposition of Diamond on Silicon by Scanning Tunneling Microscopy"
REF: 69 (1991) 6400

AUTHOR: Cong Y., Collins R.W., Messier R., Vedam K., Epps G.F. and Windischmann H.
TITLE: "Characterization of Ion Beam-induced Surface Modification of Diamond Films by Real Time Spectroscopic Ellipsometry"
JNL: J. Vac. Sci. Technol. A
REF: 9 (1991) 1123

AUTHOR: Everson M.P. and Tamor M.A.
TITLE: "Studies of Nucleation and Growth Morphology of Boron-doped Diamond Microcrystals by Scanning Tunneling Microscopy"
REF: 9 (1991) 1570-6
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
</table>
AUTHOR: Pailthorpe B.A.
TITLE: "Molecular-dynamics Simulations of Atomic Processes at the Low-temperature Diamond (111) Surface"
REF: 70 (1991) 543-7

AUTHOR: Deryabkin V.N., Pushkin A.N., Rassomakin V.V., Rudenko A.P., Tapraeva F.M. and Truknan E.M.
TITLE: "Electric Properties of Chemically Modified Diamond Surfaces"
REF: 65 (1991) 1364-7

AUTHOR: Chu C.J., D'Evelyn M.P., Hauge R.H. and Margrave J.L.
TITLE: "Mechanism of Diamond Growth by Chemical Vapor Deposition on Diamond (100), (111), and (110) Surfaces: Carbon-13 Studies"
REF: 70 (1991) 1695-705

TITLE: "Scanning Tunneling Microscopy on Chemical Vapor Deposited Diamond Films"
REF: 59 (1991) 295-7
AUTHOR: Luo C., Meng G., Qi S. and Lin Z.
TITLE: "Study on the Interaction of Hydrogen Atoms with Diamond Surface"
JNL: Wuli Xuehao
REF: 40 (1991) 667-72

AUTHOR: Deak P., Giber J. and Oechsner H.
TITLE: "Mechanism of Diamond Growth in the Presence of Atomic Hydrogen"

AUTHOR: Zheng X.M. and Smith P.V.
TITLE: "The Structure of the Diamond (111) Surface - a SLAB-MINDO Study"
REF: 253 (1991) 395-404

AUTHOR: Zheng X.M. and Smith P.V.
TITLE: "The Topologies of the Clean and Hydrogen-Terminated C(100) Surfaces"
REF: 256 (1991) 1
AUTHOR: Harris S.J., Belton D.N. and Blint R.J.
TITLE: "Thermochemistry on the Hydrogenated Diamond (111) Surface"
REF: 70 (1991) 2654-9

AUTHOR: Van Enckervort W.J.P., Janssen G., Vollenberg W., Chermin M., Giling L.J. and Seal M.
TITLE: "Thermal Chemical Vapor Deposition of Homoeptaxial Diamond: Dependence of Surface Morphology and Defect Structure on Substrate Orientation"

AUTHOR: Mitsuda Y., Yamada T., Chuang T.J., Seki H., Chin R.P., Huang J.Y. and Shen Y.R.
TITLE: "Interactions of Deuterium and Hydrocarbon Species with the Diamond C(111) Surface"

AUTHOR: Belton D.N. and Harris S.J.
TITLE: "Growth from Acetylene on the Diamond (110) Surface"
REF: 91-8 (1991) 170-80
AUTHOR: Cherian K.A.
TITLE: "Nickel-assisted Metastable Diamond Formation (Surface Recrystallization) in a Dissolution Medium at Atmospheric Pressure"
REF: 47 (1991) 127-43

AUTHOR: Verwoerd W.S. and Weimer K.
TITLE: "Atomic Cluster Study of Chemisorption and Epitaxial Diamond Films on a Silicon(100) Substrate"
REF: 47 (1991) 578

AUTHOR: Wang C. and Kordesch M.E.
TITLE: "The Morphology of Carbon Films and Surfaces Studied by Photoemission Electron Microscopy"
JNL: Ultramicroscopy
REF: 36 (1991) 154

TITLE: "Growth and Characterization of Heteroepitaxial Nickel Films on Diamond Substrates"
REF: 202 (1991) 463-8
AUTHOR: Thomas R.E., Rudder R.A. and Markunas R.J.
TITLE: "Thermal Desorption from Hydrogenated Diamond (100) Surfaces"
REF: 91-8 (1991) 186

AUTHOR: Moraru V.N., Ovcharenko F.D. and Totskaya L.A.
TITLE: "Stability and Electro-surface Properties of Aqueous Dispersions of Oxidized Synthetic Diamond"
JNL: Kolloidn. Zh.
REF: 53 (5) (1991) 574

AUTHOR: Ieki H., Sakurai A. and Kimura K.
TITLE: "Surface Acoustic Wave Devices"
JNL: U.S. Patent
REF: (1991)

AUTHOR: Harris S.J. and Belton D.N.
TITLE: "Thermochemistry on a Fluorinated Diamond (111) Surface"
REF: 59 (1991) 1949
AUTHOR: Halicioglu T.
TITLE: "Calculation of Surface Energies for Low Index Planes of Diamond"
REF: 259 (1991) L714

AUTHOR: Luo C., Meng G., Qi S. and Lin Z.
TITLE: "Interaction of Hydrogen Atoms with Diamond Surface"
JNL: Wuli Xuebao
REF: 40 (1991) 667

TITLE: "Hydrogen Desorption and Subsequent Reconstruction on Natural Diamond Surfaces"
REF: (1991) 21

AUTHOR: Pederson M.R., Jackson K.A. and Pickett W.E.
TITLE: "Theoretical Investigation of Adsorbate Interaction at the Diamond-vapor Interface"
REF: (1991) 29

68
AUTHOR: Brenner D.W., Dunlap B.I., Mintmire J.W., Mowrey R.C. and White C.T.

TITLE: "Molecular-dynamics Simulations of the Reaction of Atomic Hydrogen with Diamond Surfaces"


REF: (1991) 39

------------------------------------------------------------------------------------------------------------------

AUTHOR: Page M. and Brenner D.W.

TITLE: "Ab initio Quantum Chemical Study of Hydrogen Abstraction from Isobutane Constrained to Model a Diamond Surface"


REF: (1991) 45

------------------------------------------------------------------------------------------------------------------

AUTHOR: Freedman A. and Stinespring C.D.

TITLE: "Halogenation Of Diamond (100) Using Atomic Beams"


REF: 204 (1991) 571

------------------------------------------------------------------------------------------------------------------

AUTHOR: Jackson K.A.

TITLE: "A Local Density Approximation Study of Dangling Bonds on the Diamond (111) Surface"


REF: (1991) 51

------------------------------------------------------------------------------------------------------------------
AUTHOR: Blatter A., Boegli U., Builov L.L., Chapliev N.I., Konov V. I., Pimenov S.M., Smolin A.A. and Spitsyn I.V.

TITLE: "Excimer Laser Etching and Polishing of Diamond Films"


REF: 91-8 (1991) 357

AUTHOR: Nakahata H., Imai T. and Fujimori N.

TITLE: "Change of Resistance of Diamond Surface by Reaction with Hydrogen and Oxygen"


AUTHOR: Mintmire J.W., Brenner D.W., Dunlap B.I., Mowrey R.C. and White C.T.

TITLE: "First-principles Simulations of Diamond Surface Formation via Radical Addition"


REF: (1991) 57

AUTHOR: Harris S.J., Belton D.N. and Blint R.J.

TITLE: "Thermochemistry on the Hydrogenated Diamond (111) Surface"


REF: (1991) 277
AUTHOR: Freedman A. and Stinespring C.D.
TITLE: "Halogenation of Diamond (100) Using Atomic Beams"
REF: 91-8 (1991) 494

AUTHOR: Buck M., Chuang T.J., Seki H. and Anschel M.
TITLE: "New Materials for Electronic Packaging: Diamond Thin Films by Chemical Vapor Deposition"
REF: 91-8 (1991) 625

AUTHOR: Mowrey R.C., Brenner D.W., Dunlap B.I., Mintmire J.W. and White C.T.
TITLE: "Molecular-dynamics Simulations of Collisions of Buckminsterfullerene with Diamond Surfaces"
REF: 206 (1991) 357

AUTHOR: Chu C.J., D'Evelyn M.P., Hauge R.H. and Margrave J.L.
TITLE: "Mechanism of Diamond Homoepitaxy by Hot-filament CVD: Carbon-13 Studies"
REF: (1991) 307
AUTHOR: Freedman A. and Stinespring C.D.
TITLE: "Fluorination of Diamond (100) by Atomic and Molecular Beams"
REF: (1991) 321

AUTHOR: Pailthorpe B.A. and Knight P.
TITLE: "Molecular Dynamics Simulations of Thin Film Diamond Growth"
REF: 223 (1991) 29

AUTHOR: Ravi K.V., Joshi A. and Hu H.S.
TITLE: "Surface and Interface Effects in the Nucleation and Growth of Diamond"
REF: (1991) 391

AUTHOR: Srivinyunon T., Phillips R., Cutshaw C., Joseph A.J. and Tzeng Y.
TITLE: "Surface Morphologies and Photoluminescence of Diamond Films in a Hot Filament Reactor"
REF: (1991) 581
AUTHOR: Robertson J.
TITLE: "Electronic Structure of Diamond, Its Defects and Surfaces"
JNL: NATO ASI Ser., Ser. B
REF: 266 (1991) 37

AUTHOR: Lang A.R. and Moore M.
TITLE: "Cathodoluminescence and X-ray Topography of HPHT Diamonds"
REF: (1991) 683

AUTHOR: Grot S.A., Gildenblat G.Sh., Hatfield C.W., Badzian A.R. and Badzian T.
TITLE: "Semiconductor Device Development with Homoepitaxial Diamond Films"
JNL: NATO ASI Ser., Ser. B
REF: 266 (1991) 76

AUTHOR: Knight D.S., Pilione L. and White W.B.
TITLE: "Surface Enhanced Raman Spectroscopy of Diamond and Related Carbon Materials"
REF: (1991) 753
AUTHOR: Sun Q. and Alam M.
TITLE: "Oxidation of CVD Diamond Films"
REF: 91-8 (1991) 463

AUTHOR: Uchida N., Kurita T., Ohkoshi H., Uematsu K. and Saito K.
TITLE: "Thermochemical Etching Effect of Water Vapor on CVD Diamond Film"
JNL: J. Cryst. Growth
REF: 114 (1991) 565

AUTHOR: Heidarpour E., Mohri T. and Namba Y.
TITLE: "Hardness and Structural Studies of Diamond Thin Films Prepared by Ionized Deposition"
JNL: Hyomen Kagaku
REF: 12 (1991) 115

AUTHOR: Yoshikawa M., Ishida H., Ishitani A., Koizumi S. and Inuzuka T.
TITLE: "Study of Crystallographic Orientations in the Diamond Film on the (100) Surface of Cubic Boron Nitride Using a Raman Microprobe"
REF: 58 (1991) 1387
AUTHOR: Villain J., Rouviere J.L. and Vilfan I.
TITLE: "Phenomenology of Surface Reconstruction"
JNL: NATO ASI Ser., Ser. B
REF: 267 (1991) 201

AUTHOR: Ager J.W. III, Veirs D.K., Marchon B., Cho N. and Rosenblatt G.M.
TITLE: "Vibrational Raman Characterization of Hard Carbon and Diamond Films"
REF: 1437 (1991) 24

AUTHOR: Meilunas R.J., Chang R.P.H., Liu S. and Kappes M.M.
TITLE: "Nucleation of Diamond Films on Surfaces Using Carbon Clusters"
REF: 59 (1991) 3461

AUTHOR: Tomellini M., Polini F. and Sessa V.
TITLE: "A Model Kinetics for Nucleation at a Solid Surface with Application to Diamond Deposition from the Gas Phase"
REF: 70 (1991) 7573
AUTHOR: Okano K., Iwasaki T., Kiyota H., Kurosu T. and Lida M.

TITLE: "Characterization of Semiconducting Diamond Film and Its Application to Electronic Devices"

JNL: Thin Solid Films

REF: 206 (1991) 183

AUTHOR: Yarbrough W.A.

TITLE: "Diamond Growth on the (110) Surface"


REF: 1534 (1991) 90


TITLE: "Atomistic Mechanisms of Adhesion and Compression of Diamond Surfaces"

JNL: Thin Solid Films

REF: 206 (1991) 213

AUTHOR: Chen M., Bolton J.P.R. and McGibbon A.J.

TITLE: "Damped Surface Plasmons in Thin Slabs and Wedges of Diamond"


REF: 119 (1991) 125
AUTHOR: Schmidt H.K., Schultz J.A. and Zheng Z.
TITLE: "A New Probe for in-situ Characterization of Diamond Surfaces during Low Pressure Chemical Vapor Deposition"
JNL: NATO ASI Ser., Ser. B
REF: 266 (1991) 669

AUTHOR: Duray J.J., Yarbrough W.A. and Pantano C.G.
TITLE: "Physicochemical Aspects of Surface Treatment for Diamond Nucleation"
JNL: NATO ASI Ser., Ser. B
REF: 266 (1991) 619

AUTHOR: Zheng X.M. and Smith P.V.
TITLE: "The Chemisorption of Hydrogen on the Diamond (111) Surface"
REF: 261 (1992) 394

AUTHOR: Chin R.P., Huang J.Y., Shen Y.R., Chuang T.J., Seki, H. and Buck M.
TITLE: "Vibrational Spectra of Hydrogen on Diamond C(111)-(1X1)"
JNL: Phys. Rev. B
REF: 45 (1992) 1522
AUTHOR: Chan K.K. and Amaratunga G.A.J.
TITLE: "Effects of Surface Etching before Metal Contact Formation on Carbon/Diamond-Silicon Heterojunction Diode Characteristics"
REF: 11 (1992) 295

AUTHOR: Zhu X. and Louie S.G.
TITLE: "Anharmonicity of the Hydrogen-carbon Stretch Mode on Diamond (111)-1x1"
JNL: Phys. Rev. B.
REF: 45 (1992) 3940

AUTHOR: Zheng X.M. and Smith P.V.
TITLE: "The Stable Configurations for Oxygen Chemisorption on the Diamond (100) and (111) Surfaces"
REF: 262 (1992) 219

AUTHOR: Yang Y.L. and D'Evelyn M.P.
TITLE: "Structure and Energetics of Clean and Hydrogenated Diamond (100) Surfaces by Molecular Mechanics"
REF: 114 (1992) 2796
AUTHOR: Odaka K., Komatsu S., Ishigaki T., Matsumoto S. and Moriyoshi Y.

TITLE: "Evaluation of the Surface Structure of Diamond Films Prepared in a Combustion Flame by Surface -enhanced Raman Scattering"


REF: 60 (1992) 959

-----------------------------

AUTHOR: Garrison B.J., Dawnkaski E.J., Srivastava D.and Brenner D.W.

TITLE: "Molecular Dynamics Simulations of Dimer Opening on a Diamond (001)-(2×1) Surface"

JNL: Science

REF: 255 (1992) 635

-----------------------------

AUTHOR: Chu C.J., Hauge R.H., Margrave J.L. and D'Evelyn M.P.

TITLE: "Growth Kinetics of (100), (110), and (111) Homoeptaxial Diamond Films"


REF: 61 (1992) 1393

-----------------------------

AUTHOR: Baranauskas V., Fukui M., Rodrigues C.R., Parizotto N. and Trava-Airoldi V.J.

TITLE: "Direct Observation of Chemical Vapor Deposited Diamond Films by Atomic Force Microscopy"


REF: 60 (1992) 1567
AUTHOR: D'Evelyn M.P., Chu C.J., Hauge R.H. and Margrave J.L.

TITLE: "Mechanism of Diamond Growth by Chemical Vapor Deposition: Carbon-13 Studies"


REF: 71 (1992) 1528

-------------------------------------------------------------------------------------

AUTHOR: Sutcu L.F., Thompson M.S., Chu C.J., Hauge R.H., Margrave J.L. and D'Evelyn M.P.

TITLE: "Nanometer-scale Morphology of Homoepitaxial Diamond Films by Atomic Force Microscopy"


REF: 60 (1992) 1685

-------------------------------------------------------------------------------------

AUTHOR: Mori Y., Eimori N., Ma J.S., Ito T. and Hiraki A.

TITLE: "Surface Characteristics of Synthesized Diamond and the Effect of Surface Treatment on Surface Transformations"


REF: 56 (1992) 89

-------------------------------------------------------------------------------------

AUTHOR: Ferrari L., Cappelli E., Cricenti A., Selci S., Polini R. and Chiarotti G.

TITLE: "Study of Early Stages of Diamond Nucleation and Growth by Combined Use of SEM and AES Techniques"


REF: 56-8 (1992) 100
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Thomas R.E., Rudder R.A., Markunas R.J., Huang D. and Frenklach M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Atomic Hydrogen Adsorption on the Reconstructed Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>J. Chem. Vapor Deposition</td>
</tr>
<tr>
<td>REF:</td>
<td>1 (1992) 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Belton D.N. and Harris S.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;A Mechanism for Growth on Diamond (110) from Acetylene&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>96 (1992) 2371</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Tsuda M., Oikawa S., Furukawa S., Sekine C. and Hata M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Mechanism of the Step Growth of Diamond Crystals with Carbon Atoms. I. Epitaxial Growth of (001) Surfaces in the Lowest Singlet State with Carbon Atoms&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>139 (1992) 1482</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Huang D. and Frenklach M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Energetics of Surface Reactions on (100) Diamond Plane&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>J. Phys. Chem</td>
</tr>
<tr>
<td>REF:</td>
<td>96 (1992) 1868</td>
</tr>
</tbody>
</table>
AUTHOR: Hirata A., Tokura H. and Yoshikawa M.
TITLE: "Smoothing of Chemically Vapor Deposited Diamond Films by Ion Beam Irradiation"
JNL: Thin Solid Films
REF: 212 (1992) 43

AUTHOR: Guo F.S. and Yu S.C.
TITLE: "Structural Characteristics of Diamond Films Prepared by Thermal Chemical Vapor Deposition Processes"
JNL: Thin Solid Films
REF: 212 (1992) 133

AUTHOR: Stoner B.R., Ma G.H.M., Wolter S.D. and Glass J.T.
TITLE: "Characterization of Bias-enhanced Nucleation of Diamond on Silicon by in Vacuo Surface Analysis and Transmission Electron Microscopy"
JNL: Phys. Rev. B.
REF: 45 (1992) 11067

AUTHOR: Harris S.J. and Belton D.N.
TITLE: "Diamond Growth on a (100)-type Step"
JNL: Thin Solid Films
REF: 212 (1992) 193

82
AUTHOR: Piekarczyk W.
TITLE: "Diamond-vapor Interface and Processes Proceeding on It during Growth of Diamond Crystals. I. Diamond (111) Face"
JNL: J. Cryst. Growth
REF: 119 (1992) 345

AUTHOR: Okada K., Komatsu S., Ishigaki T., Matsumoto S. and Moriyoshi Y.
TITLE: "Surface and Step Reconstructions on (100) and (111) Planes of Diamonds Prepared by Combustion-flame Deposition"
REF: 71 (1992) 4920

AUTHOR: Hwang N.M., Bahng G.W. and Yoon D.N.
TITLE: "Thermodynamics and Kinetics for Nucleation of Diamond in the Chemical Vapor Deposition Process"
JNL: Diamond Relat. Mater.
REF: 1(2-4) (1992) 191

AUTHOR: Bonnot A.M., Mathis B.S., Mercier J., Leroy J. and Vitton J.P.
TITLE: "Growth Mechanisms of Diamond Crystals and Films Prepared by Chemical Vapor Deposition"
JNL: Diamond Relat. Mater.
REF: 1(2-4) (1992) 230
AUTHOR: Bogatyreva G.P.

TITLE: "Change of the Energy State of the Surface of Diamond Grains"

JNL: Sverkhtverd. Mater

REF: 1 (1992) 66

---

AUTHOR: Frenklach M.

TITLE: "Monte Carlo Simulation of Hydrogen Reactions with the Diamond Surface"

JNL: Phys. Rev. B.

REF: 45 (1992) 9455

---

AUTHOR: Welland M.E., McKinnon A.W., O'Shea S. and Amaratunga G.A.J.

TITLE: "Scanning Tunneling Microscopy and Atomic Force Microscopy of Carbon-diamond Films"

JNL: Diamond Relat. Mater.

REF: 1 (1992) 529

---


TITLE: "The Structure of Conducting and Nonconducting Homoepitaxial Diamond Films"

JNL: Diamond Relat. Mater.

REF: 1(5-6) (1992) 634
AUTHOR: Wang X.H., Ma G.H.M., Zhu W., Glass J.T., Bergman L., Turner K.F. and Nemanich R.J.
TITLE: "Effects of Boron Doping on the Surface Morphology and Structural Imperfections of Diamond Films"
JNL: Diamond Relat. Mater
REF: 1 (1992) 828

AUTHOR: Pickett W.E., Pederson M.R., Jackson K.A. and Erwin S.C.
TITLE: "Theoretical Electronic Structure Studies of Diamond Surfaces, Adsorbates, Defects, and Heterointerfaces"
REF: B14 (1992) 87

AUTHOR: Suzuki J.
TITLE: "Surface Modification of Diamond"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1992)

AUTHOR: Thomas R.E., Rudder R.A. and Markunas R.J.
TITLE: "Thermal Desorption from Hydrogenated and Oxygenated Diamond (100) Surfaces"
JNL: J. Vac. Sci. Technol. A
REF: 10 (1992) 2451
AUTHOR: Yamada T., Chuang T.J., Seki H. and Mitsuda Y.
TITLE: "Chemisorption of Fluorine, Hydrogen, and Hydrocarbon Species on the Diamond C(111) Surface"
REF: 76 (1992) 887

AUTHOR: Yang Y.L. and D'Evelyn M.P.
TITLE: "Theoretical Studies of Clean and Hydrogenated Diamond (100) by Molecular Mechanics"
JNL: J. Vac. Sci. Technol. A
REF: 10 (1992) 978

AUTHOR: Abyzov A.M., Panasyuk S.L., Zorin B.Ya. and Smirnov E.P.
TITLE: "Diamond Surface Radicals in the Reactions of Thermal Desorption, Chemisorption, and Gasification"
REF: 11 (1992) 1002

AUTHOR: Peploski J., Thompson D.L. and Raff L.M.
TITLE: "Molecular Dynamics Studies of Elementary Surface Reactions of Acetylene and Ethynyl Radical in Low-pressure Diamond-film Formation"
REF: 96 (1992) 8538
AUTHOR: Thomas R.E., Rudder R.A., Markunas R.J., Huang D. and Frenklach M.

TITLE: "Atomic Hydrogen Adsorption on the Reconstructed Diamond (100)-(2x1) Surface"


REF: 1 (1992) 6

---

AUTHOR: Pan B.C. and Xia S.D.

TITLE: "Study of Electronic States in the Hydrogen-induced Structural Phase Transition from Diamond C(111)-(2x1) Reconstruction to (1x1) Structure"

JNL: Mod. Phys. Lett. B

REF: 6 (1992) 649

---

AUTHOR: Savich W.J. and Kuprin V.P.

TITLE: "On the Possibility of Aniline-radical Formation on the Diamond (111) Surface with Its Further Adsorption. Quantum-chemical Calculations"


REF: 83 (1992) 813

---

AUTHOR: Besler B.H., Hase W.L. and Hass K.C.

TITLE: "A Theoretical Study of Growth Mechanism of the (110) Surface of Diamond from Acetylene and Hydrogen Mixtures"


REF: 96 (1992) 9369
AUTHOR: Maki T., Shikama S., Komori M., Sakaguchi Y., Sakuta K. and Kobayashi T.
TITLE: "Hydrogenating Effect of Single-crystal Diamond Surface"
JNL: Jpn. J. Appl. Phys., part 2
REF: 31 (1992) L1446

TITLE: "Molecular-dynamics Simulations of Atomic-scale Friction of Diamond Surfaces"
JNL: Phys. Rev. B.
REF: 46 (1992) 9700

AUTHOR: Frauenheim T. and Blaudeck P.
TITLE: "Molecular Dynamic Structure Investigations of the Adsorption and Bonding of C_xH_y-hydrocarbon Molecules/Radicals on a Diamond (111) Surface"
REF: 60-61 (1992) 281

AUTHOR: Xia D., Huang S. and Lan T.
TITLE: "Graphite-like and Bulk-like Structure of Diamond (111) lx1 Surface"
JNL: Yuanzi Yu Fenzi Wuli Xuebao
REF: 9 (1992) 2265
AUTHOR: Maguire H.G., Kamo M., Lang H.P. and Guntherodt H.J.

TITLE: "Surface Morphology Determination of LPCVD Hemoepitaxial Diamond Using Scanning Tunnelling and Atomic Force Microscopy"


REF: 60-61 (1992) 301

AUTHOR: Brandes G.R., Mills, Jr. A.P. and Zuckerman D.M.

TITLE: "Positron Work Function of Diamond C(100) Surfaces"

JNL: Mater. Sci. forum

REF: 105-110 (Positron Annitrilation, pt.3) (1992) 1363

AUTHOR: Roth C., Haeger J. and Walther H.

TITLE: "Scattering of Nitric Oxide Molecules from a Diamond (110) Surface"


REF: 97 (1992) 6880

AUTHOR: Iarlori S., Galli G., Gygi F., Parrinello M. and Tosatti E.

TITLE: "Reconstruction of the Diamond (111) Surface"


REF: 69 (1992) 2947
AUTHOR: Kubiak G.D., Schulberg M.T. and Stulen R.H.
TITLE: "Erratum to 'Hydrogen Chemisorption and the Structure of the Diamond C(100)-(2X1) Surface' [Surface Science 237 (1990) 35]"
REF: 277 (1992) 234

AUTHOR: Gubarevich T. M., Turitsyna O. F., Poleva L. I. and Tyshetskaya A. V.
TITLE: "Active Hydrogen on the Surface of Ultradispersed Carbon"
JNL: Zh. Prikl. Khim. (S.-Peterburg)
REF: 65(6) (1992) 1269-73

AUTHOR: Cinti R. C., Mathis B. S. and Bonnot A. M.
TITLE: "Surface Sensitive Electron Spectroscopy Study of Diamond Films Prepared by Hot Filament-assisted CVD"
REF: 279(3) (1992) 265-71

AUTHOR: Couto M., van Enckevort W. J. P., Wichman B. and Seal M.
TITLE: "Scanning Tunneling Microscopy of Polished Diamond Surfaces"
REF: 62(4) (1992) 263-8
AUTHOR: Vazquez L., Martin-Gago J. A., Comin F. and Ferrer S.
JNL: Ultramicroscopy
REF: 42-44(Pt. A) (1992) 616-23

AUTHOR: Maguire H. G., Kamo M., Lang H. P. and Guentherodt H. J.
TITLE: "Localized Structure of Homoeptaxial Diamond"
JNL: Ultramicroscopy
REF: 42-44(Pt. A) (1992) 689-95

AUTHOR: Zimmermann-Edling W., Busmann H. G., Sprang H. and Hertel I. V.
TITLE: "Imaging Polycrystalline CVD Diamond Films on the Micrometer and Nanometer Scale by STM and AFM"
JNL: Ultramicroscopy

AUTHOR: Sun Y.
TITLE: "Thermodynamic Mechanism of Diamond Surface Metalization"
JNL: Gaoya Wuli Xuebao
AUTHOR: Harris S.J. and Goodwin D.G.
TITLE: "Growth on the Reconstructed Diamond (100) Surface"
REF: 97 (1993) 23

AUTHOR: Francz G., Kania P. and Oelhafen P.
TITLE: "Photoemission Study of the Diamond/Silicon Interface and Surface Evolution of Diamond Grown on Silicon(100) by Microwave Plasma CVD"

AUTHOR: Zhao X. G., Carmer C. S., Weiner B. and Frenklach M.
TITLE: "Molecular Dynamics with the AM1 Potential: Reactions on Diamond Surfaces"
REF: 97(8) (1993) 1639-48

AUTHOR: Kondoh E., Ohta T., Mitomo T. and Ohtsuka K.
TITLE: "Surface Reaction Kinetics of Gas-phase Diamond Growth"
REF: 73(6) (1993) 3041-6
AUTHOR: Ando T., Inoue S., Ishii M., Kamo M., Sato Y., Yamada O. and Nakano T.

TITLE: "Fourier-transform Infrared Photoacoustic Studies of Hydrogenated Diamond Surfaces"


REF: 89(4) (1993) 749-51

AUTHOR: Sun B., Zahan X., Zhang Q. and Lin Z.

TITLE: "Investigation of the Grown Diamond (100) Surface Using High Resolution Electron Energy Loss Spectroscopy"


REF: 28(2) (1993) 131-5

AUTHOR: van der Weide J. and Nemanich R. J.

TITLE: "Argon and Hydrogen Plasma Interactions on Diamond (111) Surfaces: Electronic States and Structure"


AUTHOR: Yang Y. L., Struck L. M., Sutcu L. F. and D'Evelyn M. P.

TITLE: "Chemistry of Hydrogen on Diamond (100)"

JNL: Thin Solid Films

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
</table>
AUTHOR: Shinar R., Leksono M. and Shanks H. R.
TITLE: "Effect of Boron Doping on the Surfaces of Diamond Thin Films"
JNL: J. Vac. Sci. Technol., A
REF: 11(3) (1993) 569-73

AUTHOR: Busmann F. G., Lill T., Reif B., Hertel I. V. and Maguire H. G.
TITLE: "Energy Partition in Collisions of C60 Fullerene(1+) Ions with Diamond (111) and Graphite(0001) Surfaces"
REF: 98(9) 1993) 7574-80

AUTHOR: Vach H. and Chatelet M.
TITLE: "Classical-versus Quantum-mechanical Desorption Kinetics in Molecule/Surface Scattering: the Nitric Oxide/Diamond Case"
REF: 98(10) (1993) 8271-6

AUTHOR: Piekarczyk W. and Prawer S.
TITLE: "Role of Atomic Hydrogen in Preventing Surface Reconstruction and SP2 Bond Formation during Chemical Vapor Deposition of Diamond"
JNL: Diamond Relat. Mater.
REF: 2(1) (1993) 41-7
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Ohtake N. and Yoshikawa M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Effects of Oxygen Addition on Growth of Diamond Film by Arc Discharge Plasma Jet Chemical Vapor Deposition&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Jpn. J. Appl. Phys., Part 1</td>
</tr>
<tr>
<td>REF:</td>
<td>32(5A) (1993) 2067-73</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Borodina L. M. and Tesner P. A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Kinetics of Diamond Epitaxial Growth&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>34(1) (1993) 185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Harker A. B., DeNatale J. F., Flinto J. F. and Breer J. J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Direct Observation of the Defect Structure of Polycrystalline Diamond by Scanning Electron Microscopy&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Ye L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Reconstruction of Diamond (100) Surface with Local Density Functional Theory&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Wuli Xuebao</td>
</tr>
<tr>
<td>REF:</td>
<td>42(1) (1993) 87-91</td>
</tr>
</tbody>
</table>
AUTHOR: Ando T., Ishii M., Kamo M. and Sato Y.

TITLE: "Thermal Hydrogenation of Diamond Surfaces Studied by Diffuse Reflectance Fourier-transform Infrared, Temperature-programmed Desorption and Laser Raman Spectroscopy"


REF: 89(11) (1993) 1783-9

------------------------------------------

AUTHOR: Yamazaki H. and Uchiyama A.

TITLE: "Graphite Formation on Natural Diamond (111) Surfaces by Electron Irradiation and Heat Treatment"


------------------------------------------

AUTHOR: Wu J., Yang X., Pianetta P. and Lindau I.

TITLE: "Photoemission Study of Diamond (100) Surface"

JNL: J. Vac. Sci. Technol. A

REF: 11(4) (1993) 1048

------------------------------------------

AUTHOR: Lambrecht W.R.L., Lee C.H., Segall B., Angus J.C., Li Z. and Sunkara M.

TITLE: "Diamond Nucleation by Hydrogenation of the Edges of Graphite Precursors"

JNL: Nature

REF: 364 (1993) 607

------------------------------------------
II. INTERFACIAL BEHAVIOR OF DIAMOND

AUTHOR: Wentorf, Jr. R.H. and Darrow K.A.
TITLE: "Semiconducting Diamonds by Ion Bombardment"
JNL: Physical Review
REF: 137 (1965) A1614

AUTHOR: Mead C.A. and McGill T.C.
TITLE: "Schottky Barrier Heights on P-Type Diamond and Silicon Carbide (6H)"
JNL: Physics Letters
REF: 58A (1976) 249

AUTHOR: Ihm J., Louie S.G. and Cohen M.L.
TITLE: "Electronic Structure of Ge and Diamond Schottky Barriers"
JNL: Physical Review B
REF: 18 (1978) 4172

AUTHOR: Ihm J., Louie S.G. and Cohen M.L.
TITLE: "Diamond-Metal Interfaces and the Theory of Schottky Barriers"
JNL: Physical Review Letters
REF: 40 (1978) 1208
AUTHOR: Himpsel F.J., Heimann P. and Eastman D.E.
TITLE: "Schottky Barriers on Diamond (111)"
JNL: Solid State Commun
REF: 36(7) (1980) 631

-----------------------------------------------

AUTHOR: Pepper S.V.
TITLE: "Effect of Electronic Structure of the Diamond Surface on the Strength of the Diamond-Metal Interface"
REF: 20 (3) (1982) 643

-----------------------------------------------

AUTHOR: Craig S. and Harding G.L.
TITLE: "Auger Lineshape Analysis of Carbon Bonding in Sputtered Metal-Carbon Thin Films"
JNL: Surface Science
REF: 124 (1983) 591

-----------------------------------------------

AUTHOR: Anisichkin V.F. and Mal'kov I. Yu.
TITLE: "Thermodynamic Stability of an Ultrafine Diamond Phase"
JNL: Fiz. Goreniya Vzryva

-----------------------------------------------
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Title</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
</table>
AUTHOR: Nozhkina A.V.
TITLE: "Effect of Metals on the Phase Transformation of Diamond into Graphite"
JNL: Sverkhtverd. Mater.
REF: (3) (1988) 11

AUTHOR: Pickett W.E.
TITLE: "Thin Superlattices and Band-gap Discontinuities: The (110) Diamond-boron Nitride Interface"
JNL: Phys. Rev. B
REF: 38(2) (1988) 1316

AUTHOR: Rockett A.
TITLE: "Monte Carlo Simulations of the Growth of Diamond-structure Semiconductors and Surface-reflected Electron-beam Intensities during Molecular-beam Epitaxy"
REF: 6(2) (1988) 763

AUTHOR: Shurkhal V.V., Umanskii V.P., Lavrinenko I.A. and Naidich Yu. V.
TITLE: "Effect of Hydrogen on the Adhesion of Metallic Coatings to Diamond"
JNL: Adgeziya i Kontakt. Vzaimodeistvie Rasplavov Kiev
REF: (1988) 116
| AUTHOR: | Uel'skii A.A. and Genearskaya B.A. |
| TITLE: | "Development of a Carbonyl Method for Metalization of Diamonds" |
| JNL: | Term. Dissotsatsiya Metallorgan. Soed. M. |
| REF: | (1988) 49 |

| AUTHOR: | Belton D.N. and Schmieg S.J. |
| TITLE: | "Loss of Epitaxy during Diamond Film Growth on Ordered Nickel(100)" |
| REF: | 66(9) (1989) 4223 |

| AUTHOR: | Chernoberezhskii Yu. M., Kuchuk V.I., Golikova E.V. and Klochkova O.V. |
| TITLE: | "Temperature Dependence of the Stability of Dispersions of Natural Diamond in Aluminum Chloride Solutions" |
| REF: | (1) (1989) 103 |

| TITLE: | "A Tensiometric Study of Diamond (111) and (110) Faces" |
| JNL: | J. Colloid Interface Sci. |
| REF: | 130(2) (1989) 347 |
AUTHOR: Hoshino S. and Fujii k.
TITLE: "Optical Disk Containing Diamond Protective Film"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

AUTHOR: Ito N., Yamamoto M., Uesugi H. and Hattori T.
TITLE: "Diamond Film-coated Substrates"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

AUTHOR: Jones B.L.
TITLE: "Bonding Diamond to Diamond by Chemical Vapor Deposition"
REF: (1989)

AUTHOR: Kowalski G., Lang A. R., Makepeace A.P.W. and Moore M.
TITLE: "Studies of Stacking-fault Contrast by Synchrotron X-ray Section Topography"
JNL: J. Appl. Crystallogr
REF: 22(5) (1989) 410
AUTHOR: Lambrecht W.R.L. and Segall B.
TITLE: "Electronic Structure of (Diamond Carbon)/(Sphalerite Boron Nitride) (110) Interfaces and Superlattices"
JNL: Phys. Rev. B.
REF: 40(14) (1989) 9909

AUTHOR: Oki T., Fukuta Y., Hisada E. and Aoki S.
TITLE: "Coated Abrasive Grains, and their Manufacture"
REF: (1989)

AUTHOR: Oki T., Okido M., Ando M. and Sugie Y.
TITLE: "Synthesis of Diamond Thin Film on Silicon Monocarbide Substrate by Thermal Chemical Vapor Deposition Process"
JNL: Shigen to Sozai
REF: 105(2) (1989) 205

AUTHOR: Yamashita N. and Wada T.
TITLE: "Polishing of Diamond Films"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)
AUTHOR: Lambrecht W.R.L. and Segall B.
JNL: Phys. Rev. B.
REF: 41 (1990) 5409

AUTHOR: Pickett W. E. and Erwin S. C.
TITLE: "Electronic Properties of Diamond/Nickel and Diamond/Boron Nitride Interfaces"
REF: 162 (1990) 35-41

AUTHOR: Lambrecht W. R. L. and Segall B.
TITLE: "Electronic Structure of Wide Bandgap Semiconductor Interfaces: Cubic Silicon Carbide/Aluminum Nitride, Silicon Carbide/Boron Phosphide, Diamond/Boron Nitride"
REF: 162 (1990) 501-6

AUTHOR: Erwin S. C. and Pickett W. E.
TITLE: "Electronic Structure Studies of Diamond/Metal Interfaces"
REF: 193 (1990) 59-64
AUTHOR: Pickett W. E. and Erwin S. C.
TITLE: "Electronic Structure and Band Lineups at the Diamond/Boron Nitride and Diamond/Nickel Interfaces"
JNL: Superlattices Microstruct.
REF: 7(4) (1990) 335-9

AUTHOR: Grot S.A., Gildenblat G.Sh., Hatfield C.W., Wronski C.R., Badzian A.R., Badzian T. and Messier R.
TITLE: "The Effect of Surface Treatment on the Electrical Properties of Metal Contacts to Boron-doped Homoepitaxial Diamond Films"
REF: 11 (1990) 100

AUTHOR: Pickett W.E. and Erwin S.C.
TITLE: "Electronic Structure of an Ideal Diamond-Nickel (001) Interface"
JNL: Phys. Rev. B
REF: 41 (1990) 9756

AUTHOR: Perevertailo V.M.
TITLE: "Control of Wettability and Contact Interaction of Metal Melts with the Surface of Graphite and Diamond"
JNL: Sverkhtverd. Mater.
REF: 4 (1991) 7-12
AUTHOR: Erwin S. C. and Pickett W. E.
TITLE: "Diamond/Metal Interfaces: Schottky Barriers and Chemical Bonding"
REF: (1991) 957-62

AUTHOR: Erwin S. C. and Pickett W. E.
TITLE: "Diamond-Nickel Interfaces: Calculation of the Electronic and Atomic Structure and Schottky Barriers"
REF: 47(1-3) (1991) 487-95

AUTHOR: Sung C.P. and Shih H.C.
TITLE: "The Interfacial Structure and Composition of Diamond Films Grown on Various Substrates"
REF: 7 (1992) 105

AUTHOR: Verardi W. S.
TITLE: "Interface Structures for Epitaxy of Diamond on Silicon(100)"
JNL: Diamond Relat. Mater.
REF: 1(2-4) (1992) 195-9
AUTHOR: Erwin S. C. and Pickett W. E.
TITLE: "Vanishing Schottky Barriers in Diamond/Metal Interfaces"
REF: 81(11) (1992) 891-4

AUTHOR: Lambrecht W. R. L. and Segall B.
TITLE: "Electronic Structure and Total Energy of Diamond/Beryllia Interfaces"
REF: 7(3) (1992) 696-705

AUTHOR: Glesener J.W., Morrish A.A. and Snail K.A.
TITLE: "Electron Beam Modification of the Schottky Diode Characteristics of Diamond"
REF: 61 (1992) 429

AUTHOR: Aketagawa M.
TITLE: "Study of Interface Control Method in Metal-Diamond Semiconductor Junction"
JNL: Idemitsu Giho
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Beetz C. P., Jr. and Tan S. H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Optical Determination and Modification of Schottky Barrier Heights of Metals on Diamond Surfaces&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Fourches N., Turban G. and Grolleau B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Study of DLC/Silicon Interfaces by XPS and in-situ Ellipsometry&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>68 (1993) 149</td>
</tr>
</tbody>
</table>
III. BULK ELECTRONIC AND PHYSICAL BEHAVIOR

AUTHOR: Pearlstein E.A. and Sutton R.B.
TITLE: "Mobility of Electrons and Holes in Diamond"
REF: 79 (1950) 907

AUTHOR: Klick C.C. and Maurer R.J.
TITLE: "The Mobility of Electrons in Diamond"
JNL: Physical Review
REF: 81 (1951) 124

AUTHOR: Custers J.F.H.
TITLE: "Unusual Phosphorescence of a Diamond"
JNL: Physica
REF: 18 (1952) 489

AUTHOR: Schmid L.A.
TITLE: "Calculating of the Cohesive Energy of Diamond"
JNL: Physical Review
REF: 92 (1953) 1373
AUTHOR: Sutherland G.B.B.M., Blackwell D.E. and Simeral W.G.
TITLE: "The Problem of the Two Types of Diamond"
JNL: Nature
REF: 174 (1954) 901

AUTHOR: Redfield A.G.
TITLE: "Electronic Hall Effect in Diamond"
JNL: Physical Review
REF: 94 (1954) 526

AUTHOR: Brophy J.J.
TITLE: "Preliminary Study of the Electrical Properties of a Semiconducting Diamond"
REF: 99 (1955) 1336

AUTHOR: Austin I.G. and Wolfe R.
TITLE: "Electrical and Optical Properties of a Semiconducting Diamond"
REF: 69B (1956) 329
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Title</th>
<th>Journal</th>
<th>REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brophy J.J.</td>
<td>&quot;Electronic Band Structure of Diamonds&quot;</td>
<td>Physica</td>
<td>22 (1956) 156-158</td>
</tr>
</tbody>
</table>
AUTHOR: Hardy J.R. and Smith S.D.
TITLE: "Two-phonon Infra-red Lattice Absorption in Diamond"
JNL: Philosophical Magazine
REF: 6 (1961) 1163

AUTHOR: Rauch C.J.
TITLE: "Millimeter Cyclotron Resonance Experiments in Diamond"
JNL: Physical Review Letters
REF: 7 (1961) 83

AUTHOR: Evans T. and Phaal C.
TITLE: "Imperfections in Type I and Type II Diamonds"
JNL: Proc. R. Soc. Lond. A
REF: 270 (1962) 538

AUTHOR: Wilson W.B.
TITLE: "Evidence for Hopping Transport in Boron-doped Diamond"
JNL: Physical Review
REF: 127 (1962) 1549
AUTHOR: Clegg P.E. and Mitchell E.W. J.
TITLE: "The Density of States Mass of Holes in Semiconducting Diamond"
REF: 84 (1964) 31

AUTHOR: Clark C.D., Dean P.J. and Harris P.V.
TITLE: "Intrinsic Edge Absorption in Diamond"
JNL: Proc. R. Soc. Lond. A.
REF: 277 (1964) 312

AUTHOR: Dean P.J. and Jones I.H.
TITLE: "Recombination Radiation from Diamond"
JNL: Physical Review
REF: 133 (1964) A1698

AUTHOR: Dean P.J., Lightowlers E.C. and Wight D.R.
TITLE: "Intrinsic and Extrinsic Recombination Radiation from Natural and Synthetic Aluminum-doped Diamond"
JNL: Physical Review
REF: 140 (1965) A352
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Dean P.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Bound Excitons and Donor-Acceptor Pairs in Natural and Synthetic Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>139 (1965) A588</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Collins A.T., Dean P.J., Lightowlers E.C. and Sherman W.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Acceptor-Impurity Infrared Absorption in Semiconducting Synthetic Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>140 (1965) A1272</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Keown R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Energy Bands in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>150 (1966) 568</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Lightowlers E.C. and Collins A.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Electrical-transport Measurements on Synthetic Semiconducting Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>151 (1966) 685</td>
</tr>
</tbody>
</table>
AUTHOR: Saslow W., Bergstresser T.K. and Cohen M.L.
TITLE: "Band Structure and Optical Properties of Diamond"
JNL: Physical Review Letters
REF: 16 (1966) 354

AUTHOR: Crowther P.A., Dean P.J. and Sherman W.F.
TITLE: "Excitation Spectrum of Aluminum Acceptors in Diamond under Uniaxial Stress"
JNL: Physical Review
REF: 154 (1967) 772

AUTHOR: Peckham G.
TITLE: "The Phonon Dispersion Relation for Diamond"
JNL: Solid State Communications
REF: 5 (1967) 311

AUTHOR: Roberts R.A. and Walker W.C.
TITLE: "Optical Study of the Electronic Structure of Diamond"
JNL: Physical Review
REF: 161 (1967) 730
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Denham P., Lightowlers E.C. and Dean P.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Ultraviolet Intrinsic and Extrinsic Photoconductivity of Natural Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>161 (1967) 762</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Angus J.C., Will H.A. and Stanko W.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Growth of Diamond Seed Crystals by Vapor Deposition&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Journal of Applied Physics</td>
</tr>
<tr>
<td>REF:</td>
<td>39 (1968) 2915</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Saravia L.R. and Brust D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Band Structure and Interband Optical Absorption in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>170 (1968) 683</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Collins A.T. and Lightowlers E.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Photothermal Ionization and Photon-induced Tunneling in the Acceptor Photoconductivity Spectrum of Semiconducting Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>171 (1968) 843</td>
</tr>
<tr>
<td>AUTHOR:</td>
<td>Wedepohl P.T.</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>TITLE:</td>
<td>&quot;On the Nature of the Acceptor Centre in Natural Semiconducting Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>1 (1968) 1773</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Collins A.T., Lightowlers E.C. and Dean P.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Role of Phonons in the Oscillatory Photoconductivity Spectrum of Semiconducting Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>183 (1969) 725</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Anastassakis E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Stark Effect on Impurity levels in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review</td>
</tr>
<tr>
<td>REF:</td>
<td>186 (1969) 760</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Cohen M.H. and Ruvalds J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Two-phonon Bound States&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review Letters</td>
</tr>
<tr>
<td>REF:</td>
<td>23 (1969) 1378</td>
</tr>
</tbody>
</table>
TITLE: "Use of Characteristic X Rays to Monitor Annealing of Ion-implanted Diamond"
JNL: Applied Physics Letters
REF: 14 (1969) 295

AUTHOR: Sobolev E.V., Il'in V.E., Gil'bert E.I. and Lenskaya S.V.
TITLE: "Aluminum Impurities in Diamond Absorption Spectra"
JNL: Soviet Physics -Solid State
REF: 11 (1969) 200

AUTHOR: Williams A.W.S., Lightowlers E.C. and Collins A.T.
TITLE: "Impurity Conduction in Synthetic Semiconducting Diamond"
REF: 3 (1970) 1727

AUTHOR: Solin S.A. and Ramdas A.K.
TITLE: "Raman Spectrum of Diamond"
JNL: Physical Review B
REF: 1 (1970) 1687
TITLE: "Calculation of the Band Structure and Optical Constants of Diamond Using the Nonlocal-Pseudopotential Method"
JNL: Physical Review B
REF: 2 (1970) 2054

AUTHOR: Collins A.T. and Williams A.W.S.
TITLE: "The Nature of the Acceptor Centre in Semiconducting Diamond"
JNL: Journal of Physics C: Solid State Physics
REF: 4 (1971) 1789

AUTHOR: Painter G.S., Ellis D.E. and Lubinsky A.R.
TITLE: "Ab Initio Calculation of the Electronic Structure and Optical Properties of Diamond Using the Discrete Variational Method"
JNL: Phys. Rev. B
REF: 4 (1971) 3610

AUTHOR: Yaser K.
TITLE: "X-Shell Flourescence Yield for Beryllium, Boron, and Carbon"
JNL: Phys. Rev. Lett
REF: 28 (1972) 1013
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Tsay Y.F., Ananthanarayanan K.P., Gielisse P.J. and Mitra S.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Electrical Conductivity of Heavily Doped Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>43 (1972) 3677</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Farrer R.G. and Vermeulen L.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Photoconductivity in Irradiated Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>5 (1972) 2762</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Russell K.J. and Leivo W.J.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;High-field Magnetoresistance of Semiconducting Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Physical Review B</td>
</tr>
<tr>
<td>REF:</td>
<td>6 (1972) 4588</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Vavilov V.S., Gukasyan M.A., Guseva M.I. and Konorova E.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Electrical Conductivity of Diamond Containing Implanted Lithium Ions&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Soviet Physics - Semiconductors</td>
</tr>
<tr>
<td>REF:</td>
<td>6 (1972) 741</td>
</tr>
</tbody>
</table>
AUTHOR: Messmer R.P. and Watkins G.D.

TITLE: "Molecular-Orbital Treatment for Deep Levels in Semiconductors: Substitutional Nitrogen and the Lattice Vacancy in Diamond"

JNL: Physical Review B

REF: 7 (1973) 2568

AUTHOR: Weigel C., Peak D., Corbett J.W., Watkins G.D. and Messmer R.P.

TITLE: "Carbon Interstitial in the Diamond Lattice"

JNL: Physical Review B

REF: 8 (1973) 2906

AUTHOR: Poferl D.J., Gardner N.C. and Angus J.C.

TITLE: "Growth of Boron-doped Diamond Seed Crystals by Vapor Deposition"


REF: 44 (1973) 1428

AUTHOR: Brosious P.R., Corbett J.W. and Bourgoin J.C.

TITLE: "EPR Measurements in Ion-implanted Diamond"


REF: 21 (1974) 677
AUTHOR: Egerton R.F. and Whelan M.J.
TITLE: "Electron Energy Loss Spectra of Diamond, Graphite, and Amorphous Carbon"
JNL: Journal of Electron Spectroscopy and Related Phenomena
REF: 3 (1974) 232

AUTHOR: Chrenko R.M. and Strong H.M.
TITLE: "Physical Properties of Diamond"
JNL: General Electric Technical Information Series, Report No 75crd089
REF: October 1975

AUTHOR: Tubino R. and Birman J.L.
TITLE: "Two-Phonon Spectrum of Diamond"
JNL: Physical Review Letters
REF: 35 (1975) 670

AUTHOR: Bullett D.W.
TITLE: "Angular Forces and Valence Force Field in C and Si"
REF: 8 (1975) 3108
AUTHOR: Grimsditch M.H. and Ramdas A.K.
TITLE: "Brillouin Scattering in Diamond"
JNL: Physical Review B
REF: 11 (1975) 3139

AUTHOR: Davies G.
TITLE: "The A Nitrogen Aggregate in Diamond - Its Symmetry and Possible Structure"
REF: 9 (1976) L537

AUTHOR: Lightowlers E.C. and Collins A.T.
TITLE: "Determination of Boron in Natural Semiconducting Diamond by Prompt Particle Nuclear Microanalysis and Schottky Barrier Differential-capacitance Measurements"
REF: 9 (1976) 951

AUTHOR: Vavilov V.S. and Konorova E.A.
TITLE: "Semiconducting Diamond"
REF: 19 (1976) 301
| AUTHOR: | Chrenko R.M., Tuft R.E. and Strong H.M. |
| TITLE:  | "Transformation of the State of Nitrogen in Diamond" |
| JNL:    | Nature |
| REF:    | 270 (1977) 141 |

| AUTHOR: | Zunger A. and Freeman A.J. |
| TITLE:  | "Ground-state Electronic Properties of Diamond in the Local-Density Formalism" |
| JNL:    | Physical Review B |
| REF:    | 15 (1977) 5049 |

| AUTHOR: | Washington M.A. and Cummins H.Z. |
| TITLE:  | "Linewidth of the Sharp Two-Phonon Raman Peak in Diamond" |
| JNL:    | Physical Review B |
| REF:    | 15 (1977) 5840 |

<p>| AUTHOR: | Aleshin V.G., Kucherenko Yu.N. and Nemoshkalenko V.V. |
| TITLE:  | &quot;Ratio of the Photoionization Cross Sections of the Valence s- and p-electrons of Crystals with a Diamond Structure&quot; |
| REF:    | (5) (1977) 455 |</p>
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Tubino R. and Birman J.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Theory of Two-Phonon Raman Spectrum of Diamond&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Physical Review B</td>
</tr>
<tr>
<td>REF</td>
<td>15 (1977) 5843</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Loubser J.H.N. and Van Wyk J.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Optical Spin-Polarization in a Triplet State in Irradiated and Annealed Type Ib Diamonds&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Diamond Res.</td>
</tr>
<tr>
<td>REF</td>
<td>(1977) 11-14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Loubser J.H.N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;ESR Studies of Diamond Powders&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Solid State Commun.</td>
</tr>
<tr>
<td>REF</td>
<td>22 (1977) 767</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Loubser J.H.N. and Van Wyk J.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Electron Spin Resonance in the Study of Diamond&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>41 (1978) 4885</td>
</tr>
</tbody>
</table>
AUTHOR: Grimsditch M.H., Anastassakis E. and Cardona M.
TITLE: "Effect of Uniaxial Stress on the Zone-center Optical Phonon of Diamond"
JNL: Physical Review B
REF: 18 (1978) 901

AUTHOR: Mainwood A.
TITLE: "Relaxation about the Vacancy in Diamond"
REF: 11 (1978) 2703

AUTHOR: Davies, G. Welbourn C.M. and Loubser J.H.N.
TITLE: "Optical and Electron Paramagnetic Effects in Yellow Type la Diamonds"
JNL: Diamond Res.
REF: (1978) 23

AUTHOR: Evans S.
TITLE: "Surface Properties of Diamond - Some Recent Developments"
JNL: Diamond Research
REF: (1978) 31
AUTHOR: Himpsel F.J. and Knapp J.A. et. al
TITLE: "Quantum Photoyield of Diamond (111): a Stable Negative Affinity Emitter"
JNL: Phys. Rev. B
REF: 20 (2) (1979) 624

AUTHOR: Bourgoin J.C., Krynicki J. and Blanchard B.
TITLE: "Boron Concentration and Impurity-to-Band Activation Energy in Diamond"
REF: 52 (1979) 293

AUTHOR: Kalish R., Deicher M., Recknagel E. and Wichert Th.
TITLE: "Intrinsic Limitations of Doping Diamonds by Heavy-ion Implantation"
REF: 50 (1979) 6870

AUTHOR: Rebak M., Sellschop J.P.F., Derry T.E. and Fearick R.W.
TITLE: "Preparation of Natural Diamond Targets for Tandem Experiments"
JNL: Nucl. Instrum. and Methods
REF: 167 (1979) 115
AUTHOR: Glotzel D., Segall B. and Andersen O.K.
TITLE: "Self-Consistent Electronic Structure of Si, Ge and Diamond by the LMTO-ASA Method"
JNL: Solid State Communications
REF: 36 (1980) 403

AUTHOR: Fearick R.W. and Sellschop J.P.F.
TITLE: "Dechannelling and the Nature of Defect Structures in Natural Type Ia Diamonds"
JNL: Nuclear Instruments and Methods
REF: 168 (1980) 195

AUTHOR: Himpsel F.J., van der Veen J.F., and Eastman D.E.
TITLE: "Experimental Bulk Energy Bands for Diamond Using hv-dependent Photoemission"
JNL: Physical Review B
REF: 22 (1980) 1967

AUTHOR: Sellschop J.P.F., Madiba C.C.P. and Annegarn H.J.
TITLE: "Light Volatiles in Diamond: Physical Interpretation and Genetic Significance"
JNL: Nucl. Instrum. Methods
REF: 168 (1980) 529
AUTHOR: Bachelet G.B., Baraff G.A. and Schlüter M.
TITLE: "Defects in Diamond: The Unrelaxed Vacancy and Substitutional Nitrogen"
JNL: Physical Review B
REF: 24 (1981) 4736

AUTHOR: Bachelet G.B., Greenside H.S., Baraff G.A. and Schlüter M.
TITLE: "Structural-energy Calculations Based on Norm-conserving Pseudopotentials and Localized Gaussian Orbitals"
JNL: Physical Review B
REF: 24 (1981) 4745

AUTHOR: Yin M.T. and Cohen M.L.
TITLE: "Ground-state Properties of Diamond"
JNL: Physical Review B
REF: 24 (1981) 6121

AUTHOR: Zaitsev A.M., Gippius A.A. and Vavilov V.S.
TITLE: "Luminescence of Impurity-defect Complexes Containing Nitrogen in Ion-implanted Layers of Natural Diamond"
REF: 16(3) (1982) 252
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Van Wyk J.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Carbon-13 Hyperfine Interaction of the Unique Carbon of the P2 (ESR) or N3 (Optical) Centre in Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>15 (1982) L981</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Kiel B., Stollhoff G., Weigel C., Fulde P. and Stoll H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Electron Correlations in the Ground State of Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>46 (1982) 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Gouanere M., Sillou D., Spighel M., Cue N., Gaillard M.J., Kirsch R.G., Poizat J-C., Remillieux J., Berman B.L., Catillon P., Roussel L. and Temmer G.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Sharp-line and Broad-continuum Radiation from Electrons Channeled in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Nuclear Instruments and Methods</td>
</tr>
<tr>
<td>REF:</td>
<td>194 (1982) 225</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Gordeev S.K., Smirnov E.P. and Kol'tsov S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Synthesis of Diamond-based Hydroxytitanium-carbon Solid Compounds by the Method of Molecular Stratification&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>52 (1982) 1468</td>
</tr>
</tbody>
</table>
AUTHOR: Lannoo M.
TITLE: "Al-T2 Splitting for Substitutional Nitrogen in Diamond"
JNL: Physical Review B
REF: 25 (1982) 2987

AUTHOR: Yang W.S., Sckolov J. and Jona F.
TITLE: "Bulklike Structure of Diamond (111)"
REF: 41(2) (1982) 191

TITLE: "Electron and Positron Planar Channeling Radiation from Diamond"
JNL: Physics Letters
REF: 96A (1983) 314

AUTHOR: Lodge K.W., Lapicciarella A., Tomassini N. and Altmann S.L.
TITLE: "Core Structure of 90° Partial Dislocations in Diamond"
REF: (1983) 37
AUTHOR: Nelson R.S., Hudson J.A., Mazey D.J. and Piller R.C.
TITLE: "Diamond Synthesis: Internal Growth during C+ Ion Implantation"
JNL: Proc. R. Soc. Lond. A
REF: 386 (1983) 211

TITLE: "Dissociation of Dislocations in Diamond"
JNL: Proc. R. Soc. Lond. A
REF: 386 (1983) 241

AUTHOR: Braunstein G. and Kalish R.
TITLE: "Effective p-type Doping of Diamond by Boron Ion Implantation"
REF: 54 (1983) 2106

AUTHOR: Harrison W. A.
TITLE: "Theory of the Two-center Bond"
JNL: Physical Review B
REF: 27 (1983) 3592
AUTHOR: Collins A.T. and Spear P.M.
TITLE: "The 1.40 eV and 2.56 eV Centres in Synthetic Diamond"
REF: 16 (1983) 963

AUTHOR: Altmann S.L., Lodge K.W. and Lapiccirella A.
TITLE: "The Stacking-fault Energy in Diamond"
JNL: Philos. Mag. A
REF: 47 (1983) 827

AUTHOR: Davies G.
TITLE: "Distorted Defects in Silicon and Diamond"
JNL: Physica
REF: 116B (1983) 66

AUTHOR: Jones R. and King T.
TITLE: "Calculation of Local Density of States at Defects in Diamond and Silicon"
JNL: Physica
REF: 116B (1983) 72
AUTHOR: Nir D.  
TITLE: "Stress-relief Forms of Diamond-like Carbon Thin Films under Internal Compressive Stress"  
JNL: Thin Solid Film  
REF: 112 (1984) 41

AUTHOR: Chelikowsky J.R. and Louie S.G.  
TITLE: "First-principles Linear Combination of Atomic Orbitals Method for the Cohesive and Structural Properties of Solids: Application to Diamond"  
JNL: Physical Review B  
REF: 29 (1984) 3470

AUTHOR: Pickett W.E. and Wang C.S.  
TITLE: "Local-density Approximation for Dynamical Correlation Corrections to Single-particle Excitations in Insulators"  
JNL: Physical Review B  
REF: 30 (1984) 4719

TITLE: "Self-consistent-field CNDO/BW Cluster Model of Covalent Solids"  
JNL: Solid State Communications  
REF: 51 (1984) 939

TITLE: "Comparison of Channneling Radiation from Diamonds with and without Platelets"


AUTHOR: Yamamoto N., Spence J.C.H. and Fathy D.

TITLE: "Cathodoluminescence and Polarization Studies from Individual Dislocations in Diamond"

JNL: Philosophical Magazine B

REF: 49 (1984) 609

AUTHOR: Clark C.D. and Davey S.T.

TITLE: "Defect-induced One-phonon Absorption in Type Ia Diamonds"


AUTHOR: Ricart J.M. and Illas F.

TITLE: "Bulk Properties of Diamond and Silicon by the MINDO/3 Crystalline Orbital Approximation"

JNL: Journal of Molecular Structure

REF: 120 (1985) 309
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>TITLE</th>
<th>JNL</th>
<th>REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masidda S. and Baldereschi A.</td>
<td>&quot;Electron-density Distribution in Diamond, Silicon and Germanium under High Pressure&quot;</td>
<td>Solid State Communications</td>
<td>56 (1985) 431</td>
</tr>
<tr>
<td>Von der Linden W., Fulde P. and Bohnen K.-P.</td>
<td>&quot;Efficient Approach to the ab initio Hartree-Fock Problem of Solids, with Application to Diamond and Silicon&quot;</td>
<td>Physical Review B</td>
<td>34 (1986) 1063</td>
</tr>
<tr>
<td>AUTHOR</td>
<td>Title</td>
<td>JNL:</td>
<td>REF:</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----------------------</td>
</tr>
</tbody>
</table>
AUTHOR: Bharuth-Ram K, Connell S., Sellschop J.P.F., Stemmet M.C., Appel H. and Then G.M.
TITLE: "TDPAD Studies on Fluorine 19 Implanted Into Dimaond"
JNL: Hyperfine Interact
REF: 34(1-4) (1987) 189

AUTHOR: Geis M.W., Rathman D.D., Ehrlich D.J., Murphy R.A. and Lindley W.T.
TITLE: "High Temperature Point-contact Transistors and Schottky Diodes Formed on Synthetic Boron-doped Diamond"
JNL: IEEE Electron Device Letters
REF: Vol. EDL-8 No8 (1987) 341

AUTHOR: Collins A.T. and Woods G.S.
TITLE: "Isotope Shifts of Nitrogen Related Localised Mode Vibrations in Diamond"
JNL: Journal of Physics C: Solid State Physics

AUTHOR: Sato Y., Kamo M. and Setrka N.
TITLE: "High Tech Ceramics"
JNL: ed. P. Vincenzini, Elsevier Science
REF: Publishers BV, Amsterdam (1987) 1719
AUTHOR: Svane A.
TITLE: "Hartree-Fock Band-structure Calculations with the Linear Muffin-tin-orbital Method: Application to C, Si, Ge, and α-Sn"
JNL: Physical Review B
REF: 35 (1987) 5496

AUTHOR: Fahy S., Chang K.J., Louie S.G. and Cohen M.L.
TITLE: "Pressure Coefficients of Band Gaps of Diamond"
JNL: Physical Review B
REF: 35 (1987) 5856

AUTHOR: Fahy S. and Louie S.G.
TITLE: "High-pressure Structural and Electronic Properties of Carbon"
JNL: Physical Review B
REF: 36 (1987) 3373

AUTHOR: Jansen R.W. and Sankey O.F.
TITLE: "Ab initio Linear Combination of Pseudo-atomic-orbital Scheme for the Electronic Properties of Semiconductors: Results for Ten Materials"
JNL: Physical Review B
REF: 36 (1987) 6520
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Saboo N., Mishra K.C., Van Rossum M. and Das T.P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;First Principles Cluster Investigation of Electronic Structure and Hyperfine Interaction for Nitrogen in Diamond&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Hyperfine Interact.</td>
</tr>
<tr>
<td>REF:</td>
<td>35 (1987) 701</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Nir D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Intrinsic Stress in Diamond-like Carbon Films and Its Dependence on Deposition Parameters&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Thin Solid Films</td>
</tr>
<tr>
<td>REF:</td>
<td>146 (1987) 27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Collins A. T., Stanley M. and Woods G.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Nitrogen Isotope Effects in Synthetic Diamonds&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>20 (1987) 969</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Electronic State of a C-1s Core Exciton in Diamond&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>67(5) (1988) 495</td>
</tr>
</tbody>
</table>
AUTHOR: Anisichkin V.F. and Mal'kov I. Yu.
TITLE: "Thermodynamic Stability of an Ultrafine Diamond Phase"
JNL: Fiz. Goreniya Vzryva

TITLE: "Radiation from Electrons of Energy 4.5 GeV in Thick Diamond Single Crystals"
JNL: Pis'ma Zh. Tekh. Fiz.
REF: 14(10) (1988) 892

AUTHOR: Baranskii P.I., Petrusha I.A., Torishnii V.I., Shul'zhenko A.A. and Chipenko G.V.
TITLE: "Distribution of the Resistivity of Semiconductive Synthetic Diamond Single Crystals in their Bulk"
JNL: Sverkhtverd. Mater.
REF: (4) (1988) 23

AUTHOR: Fahy S., Wang X.W. and Louie S.G.
TITLE: "Variational Quantum Monte Carlo Nonlocal Pseudopotential Approach to Solids: Cohesive and Structural Properties of Diamond"
JNL: Physical Review Letters
REF: 61 (1988) 1631
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Bernholc J., Antonelli A. and Del Sole T.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Mechanism of Self-diffusion in Diamond&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>61(23) (1988) 2689</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Comelli G., Stoehr J., Jark W. and Pate B.B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Extended X-ray Absorption Fine-structure Studies of Diamond and Graphite&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Phys. Rev. B.</td>
</tr>
<tr>
<td>REF</td>
<td>37 (1988) 4383</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Bernholc J., Antonelli A., Wang C., and Davis R.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Native Defects and Self-diffusion in Diamond and Silicon Monocarbide&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Int. Conf. Phys. Semicond.</td>
</tr>
<tr>
<td>REF</td>
<td>19th Volume 2 (1988) 115</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Bogatyreva G.P. and Gvyazdovskaya V.L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Determination of the Pycnometric Density of Diamond Powders&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Sverkhtverd. Mater.</td>
</tr>
<tr>
<td>REF</td>
<td>(2) (1988) 35</td>
</tr>
</tbody>
</table>
AUTHOR: Bonapasta A.A., Battistoni C., Lapiccirella A., Tomassini N., Altmann S.L. and Lodge K.W.

TITLE: "Molecular Cluster Studies of Defects in Tetrahedral Lattices: Dangling Bonds Reconstruction at the Core of a 90° Partial Dislocation in Diamond"


REF: 65(4) (1988) 245

------------------------------------

AUTHOR: Briddon P., Jones R., and Lister C.M.S.

TITLE: "Hydrogen in Diamond"


------------------------------------

AUTHOR: Burenkov A.F., Dudchik Y.I. and Komarov F.F.

TITLE: "Channeling Radiation from Electrons with Energies of 16.9, 30.5, and 54.5 in Diamond" (Note: Electron energies not given in title)


REF: 58 (1988) 195

------------------------------------

AUTHOR: Chen I.

TITLE: "A Modeling of Diamond Film Growth"


REF: 64(7) (1988) 3742

------------------------------------
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Connell S., Bharuth-Ram K., Sellschop J.P.F., Stemmet M.C., Appel H. and Lowther J.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;The Lattice Site of Fluorine-19 Implanted into Diamond by TDPAD&quot;</td>
</tr>
<tr>
<td>REF:</td>
<td>B35(3-4) (1988) 423</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Derry T.E., Prins J.F., Madiba C.C.P., Ennis J., Spits R.A. and Sellschop J.P.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Nuclear Reaction Profiling of Implanted Interstitial Redistribution in Diamond&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Eliseev A.P., Sobolev E.V. and Vins V.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Thermally Stimulated Luminescence in Ib-type Diamonds&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Sverkhtverd. Mater.</td>
</tr>
<tr>
<td>REF:</td>
<td>(1) (1988) 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Fujimori N. and Imai T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Annealing of a Diamond Single Crystal with an Ion-implanted Doped Layer&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Jpn. Kokai Tokkyo Koho</td>
</tr>
<tr>
<td>REF:</td>
<td>(1988)</td>
</tr>
</tbody>
</table>
AUTHOR: Gouanere M., Sillou D., Spighel M., Cue N., Gaillard M.J., Kirsch R.G., Poizat J.C., Remillieux J., Berman B.L.; et al.

TITLE: "Planar Channeling Radiation from 54-110-MeV Electrons in Diamond and Silicon"

JNL: Phys. Rev. B.

REF: 38(7) (1988) 4352

---------------------------------------------------------------

AUTHOR: Jones R.

TITLE: "The Phonon Spectrum of Diamond Derived from ab Initio Local Density Functional Calculations on Atomic Clusters"

JNL: J. Phys. C.

REF: 21(34) (1988) 5735

---------------------------------------------------------------

AUTHOR: Kafadaryan E.A., Bernshtein V.M. and Tovmasyan D.D.

TITLE: "IR Adsorption of Hydrogen Complexes in Natural Diamonds"

JNL: Zh. Prikl. Spektrosk

REF: 49(1) (1988) 149

---------------------------------------------------------------

AUTHOR: Kavan L.

TITLE: "How many Crystal Variations does Carbon Have?"

JNL: Vesmir


---------------------------------------------------------------
AUTHOR: Lea-Wilson M.A.
TITLE: "Electron Spin Resonance Studies of Electron Irradiated Diamond"
JNL: Avail. Univ. Microfilms Int.
REF: Order No. BRDX83271 (1988)

----------------------------------------

AUTHOR: Machlin E.S.
TITLE: "On the Stabilization of Diamond Relative to Graphite by Surfaces"
REF: 3(5) (1988) 958

----------------------------------------

AUTHOR: Maguire H.G., Derry T.E., Brooks W.S., Sellschop J.P.F. and Kamo M.
REF: 84(8) (1988) 696

----------------------------------------

AUTHOR: Miyamoto M. and Kitahata K.
TITLE: "Manufacture of Large Diamond Single Crystals"
JNL: Jpn. Kokai Tokkyo Koho.
REF: (1988)
AUTHOR: Ath K. and Anderson A.B.

TITLE: "An ASED Band Theory: Lattice Constants, Atomization Energies, and Bulk Moduli for Graphite, Diamond, Silicon and α- and β-Silicon Carbide"


REF: 66(3) (1988) 277

---------------------------------------------------------------------

AUTHOR: Novikov N.V., Vishnevskii A.S. and Kvasnitsa V.N.

TITLE: "Tetragontrioctahedron (511), a New Simple Crystal Form of Synthetic diamond"

JNL: Svekhtverd. Mater.

REF: (2) (1988) 3

---------------------------------------------------------------------

AUTHOR: Novikov N.V., Tkach V. N. and Vishnevskii A. S.

TITLE: "Elastic Characteristics of Synthetic Diamond Single Crystals"


---------------------------------------------------------------------

AUTHOR: Pickett W.E.

TITLE: "Thin Superlattices and Band-gap Discontinuities: The (110) Diamond-boron Nitride Interface"


REF: 38(2) (1988) 1316
AUTHOR: Pickett W.E., and Mehl M.J.
TITLE: "Effects of Strain on the Band Structure of Diamond"
REF: 877 (1988) 64

AUTHOR: Rand S.C.
TITLE: "Ultraviolet Four-wave Mixing and Phase Conjugation with Metastable Color-center States in Diamond"
REF: 13(2) (1988) 140

AUTHOR: Rockett A.
TITLE: "Monte Carlo Simulations of the Growth of Diamond-structure Semiconductors and Surface-reflected Electron-beam Intensities during Molecular-beam Epitaxy"
JNL: J. Vac. Sci. Technol., B
REF: 6(2) (1988) 763

AUTHOR: Satoh S. and Tsuji K.
TITLE: "Temperature-gradient Growth of Large Diamond Crystals"
REF: (1988)
AUTHOR: Srikanth K., Ashok S., Badzian A., Badzian T. and Messier R.

TITLE: "Electrical Conduction in Thin Film Diamond"

JNL: Thin Solid Films

REF: 164 (1988) 187

------------------------------------------------------------------------

AUTHOR: Stollhoff G. and Bohnen K.P.

TITLE: "Correlated Ground State of Diamond Reexamined"

JNL: Phys. Rev. B:

REF: 37(9) (1988) 4678

------------------------------------------------------------------------

AUTHOR: Van Enckevort W.J.P. and Seal M.

TITLE: "Stress Birefringence Microscopy of Dislocations in Type-Ia Natural Diamond"

JNL: Philos. Mag. A

REF: 57(6) (1988) 939

------------------------------------------------------------------------

AUTHOR: Tsuji K. and Sato S.

TITLE: "Conversion of Ib-type Nitrogen to La-type Nitrogen in Synthetic Diamond Crystals"

JNL: Jpn. Kokai Tokkyo Koho

REF: (1988)
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Verwoerd W.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;A Quantum Chemical Investigation of Fluorine in Diamond&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>B35(3-4) (1988) 509</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Viktorov G.N. and Pilipenko V.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Increased Wear Resistance of Diamond Bits through Treatment with Liquid Nitrogen&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Razved. Okhr. Nedr</td>
</tr>
<tr>
<td>REF</td>
<td>(4) (1988) 20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Watanabe I. and Sugata K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;ESR in Diamond Thin Films Synthesized by Microwave Plasma Chemical Vapor Deposition&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>27(10) (1988) 1808</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Van Oort E., Manson N.B. and Glasbeek M.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Optically Detected Spin Coherence of the Diamond N-V Centre in Its Triplet Ground State&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>21 (1988) 4385</td>
</tr>
</tbody>
</table>
AUTHOR: Lobanov F.I., Solodova Y.P., Tatyanina N.A. and Tikhomirova A.B.

TITLE: "Effect of Impurity-induced Defects on the Morphology of Type I Diamonds"


REF: (6) (1988) 31

---------------------------------------------


TITLE: "Angular Distributions of Parametric x-rays from a Diamond Single Crystal"


REF: 32(8) (1989) 112

---------------------------------------------

AUTHOR: Angus J.C., Hayman C.C. and Hoffman R.W.

TITLE: "Diamond and "Diamondlike" Phases Grown at Low Pressure: Growth, Properties and Optical Applications"


REF: 969(Diamond Opt.) (1989) 2

---------------------------------------------

AUTHOR: Austin G.T.

TITLE: "Diamond"


REF: 68(5) (1989) 1038

---------------------------------------------

156
AUTHOR: Frenklach M., Kematch R., Huang D., Howard W. and Spear K.E.

TITLE: "Homogeneous Nucleation of Diamond Powder in the Gas Phase"


REF: 66 (1989) 395

AUTHOR: Bar-Yam Y. and Moustakas T.D.

TITLE: "Defect-induced Stabilization of Diamond Films"

JNL: Nature (London)

REF: 342(6251) (1989) 786

AUTHOR: Belton D.N., Harris S.J., Schmieg S.J. and Weiner A.M.

TITLE: "In Situ Characterization of Diamond Nucleation and Growth by XPS"


REF: 34(2) (1989) 517

AUTHOR: Bewilogua K., Rau B. and Breuer K.

TITLE: "Metastable Phases in ion-implanted Detached Thin Layers"


REF: (5N) (1989) 13
AUTHOR: Bruley J. and Batson P.E.
TITLE: "Electron-energy-loss Studies of Dislocations in Diamond"
REF: 40(14) (1989) 9888

AUTHOR: Bruley J. and Brown L.M.
TITLE: "Quantitative Electron Energy-loss Spectroscopy Microanalysis of Platelet and Voidite Defects in Natural Diamond"
JNL: Philos. Mag. A.
REF: 59(2) (1989) 247

TITLE: "X-ray Absorption Fine Structure of Diamond Films Grown by Chemical Vapor Deposition"
REF: 55(10) (1989) 957

AUTHOR: Collins A.T.
TITLE: "Diamond Electronic Devices—a Critical Appraisal"
REF: 4(8) (1989) 605
AUTHOR: Collins A.T.
TITLE: "The Polarized Absorption and Cathodoluminescence Associated with the 1.40 eV Center in Synthetic diamond"
REF: 1(2) (1989) 439

AUTHOR: Cousins C.S.G., Gerward L., Olsen J. and Sheldon B.J.
TITLE: "The Internal Strain Parameter of Diamond from Synchrotron Radiation Measurements"
REF: 89-8 (1989) 24

AUTHOR: Davis R.F.
TITLE: "Diamond and Silicon Carbide Thin Films: Present Status and Potential as Wide Band Gap Semiconducting Materials"
REF: 4(2) (1989) 81

AUTHOR: Dmitriev V.P., Rochal S.B., Gufan Y.M. and Toledano P.
TITLE: "Reconstructive Transitions between Ordered Phases: The Martensitic fcc.-hcp. and the Graphite-diamond Transitions"
AUTHOR: Fearick R.W., Derry T.E. and Sellschop J.P.F.
TITLE: "Dechanneling of Protons in Diamond"
JNL: Phys. Rev. B.
REF: 40(7-A) (1989) 4289

AUTHOR: Fujikawa T., Takatoh S. and Usami S.
REF: 28(9) (1989) 1683

AUTHOR: Gupta Y.M., Horn P.D. and Yoo C.S.
TITLE: "Time-Resolved Raman Spectrum of Shock-compressed Diamond"
REF: 55(1) (1989) 33

AUTHOR: Hashimoto N.
TITLE: "Substrates having High Thermal Conductivity"
JNL: Jpn. Kokai Tokkyo Koho.
REF: (1989)
AUTHOR: Karasov V.Y. and Kurmaev E.Z.
TITLE: "Change in the Electronic Structure of Diamond During Heat Treatment"
Abstract # 7B3262

AUTHOR: Kazaryan S.A., Gippius A. and Vavilov V.S.
TITLE: "Interaction of Implanted Nickel Atoms with Defects and Impurities in Natural Diamond"
REF: 23(1) (1989) 156

AUTHOR: Knight D.S. and White W.B.
TITLE: "Raman and Fluorescence Spectroscopic Characterization of Diamonds and CVD Diamonds Films"
REF: 1055 (1989) 144

AUTHOR: Kowalski G., Lang A.R., Makepeace A.P.W. and Moore M.
TITLE: "Studies of Stacking-fault Contrast by Synchrotron x-ray Section Topography"
JNL: J. Appl. Crystallogr
REF: 22(5) (1989) 410
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Long G.G., Black D.R. and Tanaka D.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Reflection-extended-x-ray-absorption-fine-structure Spectroscopy at the Carbon K-edge&quot;</td>
</tr>
<tr>
<td></td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AUTHOR</td>
<td>Lowther J.E.</td>
</tr>
<tr>
<td>TITLE</td>
<td>&quot;Dynamic Jahn-Teller Interactions at Fluorine in Diamond&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Hyperfine Interact</td>
</tr>
<tr>
<td>REF</td>
<td>52(2) (1989) 139</td>
</tr>
<tr>
<td></td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AUTHOR</td>
<td>Magomedov M.N.</td>
</tr>
<tr>
<td>TITLE</td>
<td>&quot;Interaction Potential of Atoms in Diamond&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>63(4) (1989) 1106</td>
</tr>
<tr>
<td></td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AUTHOR</td>
<td>Magomedov M.N.</td>
</tr>
<tr>
<td>TITLE</td>
<td>&quot;Interatomic Potential and Equation of State of Diamond-type Semiconductors&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>63(11) (1989) 2943</td>
</tr>
<tr>
<td></td>
<td>-------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
AUTHOR: Mehl M.J. and Pickett W.E.

TITLE: "Zone-center Raman Active Modes in Cubic and Hexagonal Diamond"


REF: 1055 (1989) 181

AUTHOR: Nisida Y. Mita Y., Mori K., Okuda S., Sato S., Yazu S., Nakagawa M. and Okada M.

TITLE: "Color Centers in Annealing of Neutron-irradiated Type Ib and Ia Diamonds"

JNL: Mater. Sci. Forum


AUTHOR: Nisida Y., Mita Y., Mihara T., Mori K., Okuda S., Okada M., Nakagawa M. and Yazu S.

TITLE: "Photo-excited Relaxation of Color Centers in Synthetic Diamonds and Hole-burning Effect"

JNL: Kyoto Daigaku Genshiro Jikkensho Gakujutsu Koenkai Koen Yoshishu

REF: 23 (1989) 69

AUTHOR: Okano K., Naruki H., Akiba Y., Kurosu T., Iida M., Hirose Y. and Nakamura T.

TITLE: "Characterization of Boron-doped Diamond Film"

JNL: Jpn. J. Appl. Phys., Part 1

REF: 28(6) (1989) 1066
AUTHOR: Oki T., Okido M., Ando M. and Sugie Y.

TITLE: "Synthesis of Diamond Thin Film on Silicon Monocarbide Substrate by Thermal Chemical Vapor Deposition Process"

JNL: Shigen to Sozai

REF: 105(2) (1989) 205

---

AUTHOR: Reznik B.I., Rotner Y.M., Sviridov V.I. and Ivanov V.S.

TITLE: "Amorphous Carbon Structure Interpretation Based on the Mathematical Modeling of Auger Spectra"

JNL: Pis'ma Zh. Tekh. Fiz.

REF: 15(22) (1989) 56

---

AUTHOR: Sahoo N., Sulaiman S.B., Mishra K.C. and Das T.P.


---

AUTHOR: Sandhu G.S., Swanson M.L. and Chu W.K.

TITLE: "Doping of Diamond by Coimplantation of Carbon and Boron"


REF: 55(14) (1989) 1397

---
AUTHOR: Shergill G., Cox J.N., Carruthers J.R. and Plano L.S.
TITLE: "Raman and FTIR Studies of the Spatial Uniformity of Diamond Films"
REF: 89-12 (1989) 173

AUTHOR: Shroder R. E., Nemanich R. J. and Glass J. T.
TITLE: "Raman Analysis of the Composite Structures in Diamond Thin Films"
JNL: Proc. SPIE. INT. SOC. OPT. ENG.
REF: 969 (1989) 79

AUTHOR: Takata Y., Edamatsu K., Yokoyama T., Seki K., Tohnan M., Okada T., and Ohta T.
TITLE: "XANES and Raman Spectroscopic Studies of Diamond Films Synthesized by Hot Filament CVD"
JNL: Jpn. J. Appl. Phys., Part 2

AUTHOR: Takatoh S., Fujikawa T. and Usami S.
JNL: Physica B (Amsterdam)
REF: 158(1-3) (1989) 566
AUTHOR: Taniguchi Y., Hirabayashi K., Ikoma K., Kurihara N.I. and Matsushima M.

TITLE: "Blue Electroluminescence of Thin-film Diamond made by the Hot-filament Method"


-----------------------------------------------

AUTHOR: Tohji K. and Udagwa Y.

TITLE: "Observation of X-ray Raman Scattering"

JNL: Physica B (Amsterdam)

REF: 158 (1989) 550

-----------------------------------------------

AUTHOR: Van Oort E. and Glasbeek M.

TITLE: "Cross-relaxation Dynamics of Optically Excited N-V Centers in Diamond"


REF: 40(10) (1989) 6509

-----------------------------------------------

AUTHOR: Weng X., Rez P. and Sankey O.F.

TITLE: "Ab Initio Band Theory Approach to Electron Energy Loss Near Edge Structures"

JNL: Physica B (Amsterdam)

REF: 158(1-3) (1989) 574

-----------------------------------------------

166
<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Weng X., Rez P. and Ma H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Carbon K-shell Near-edge Structure: Multiple Scattering and Band-theory Calculations&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Phys. Rev. B.</td>
</tr>
<tr>
<td>REF</td>
<td>40(6) (1989) 4175</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Weng X., Rez P. and Sankey O.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Pseudo-atomic-orbital Band Theory Applied to Electron-energy-loss Near-edge Structures&quot;</td>
</tr>
<tr>
<td>JNL</td>
<td>Phys. Rev. B: Condens. Matter</td>
</tr>
<tr>
<td>REF</td>
<td>40(8) (1989) 5694</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Woods G.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;The 328 cm⁻¹ Infrared Absorption Band in Type Ia Diamonds&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>59(6) (1989) 339</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>Yazu S., Sato S. and Fujimori N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>&quot;Some Properties of Synthetic Single Crystal and Thin Film Diamonds&quot;</td>
</tr>
<tr>
<td>REF</td>
<td>969 (1989) 117</td>
</tr>
</tbody>
</table>
AUTHOR: Yoshikawa M., Katagiri G., Ishida H., Ishitani A., Ono M. and Matsumura K.
TITLE: "Characterization of Crystalline Quality of Diamond Films by Raman Spectroscopy"

AUTHOR: Zhukova L.A., Ovcharenko V.M. and Kravtsov M.A.
TITLE: "Scanning Electron Diffraction Patterns for Diamond-Lattice Single Crystals"
JNL: Poverkhnost
REF: 11 (1989) 126

AUTHOR: Gildenblat G. Sh., Grot S.A., Hatfield C.W., Wronski C.R., Badzian A.R., Badzian T. and Messier R.
TITLE: "Electrical Properties of Homoepitaxial Diamond Films"
REF: 162 (1990) 297

AUTHOR: Singh D. and Pickett W. E.
TITLE: "Gradient-corrected Local Density Studies of Group IV Semiconductors"
REF: 3 (1990) 1787-90
TITLE: "The Nitrogen Content of Type Ia Natural Diamonds"
REF: 51(10) (1990) 35-41

TITLE: "The Nitrogen Content of Type Ib Synthetic Diamond"
JNL: Philos. Mag. B
REF: 62(6) (1990) 589-95

AUTHOR: Spits R. A., Derry T. E., Prins J. F. and Sellschop J. P. F.
TITLE: "Depth Profiling of Implanted Carbon-13 in Diamond as a Function of Implantation Temperature"
REF: B51(3) (1990) 247-52

AUTHOR: Connell S., Sellschop J. P. F., Stemmert M. C., Appel H., Bharuth-Ram K. and Verwoerd W. S.
TITLE: "Interpretation of Perturbed Angular Distribution Results for Fluorine-19 Implanted into Diamond"
JNL: Hyperfine Interact.
REF: 60(1-4) (1990) 941-4
AUTHOR: Erwin S. C., Pederson M. R. and Pickett W. E.
TITLE: "First-principles, General-potential Local-orbital Calculations for Bulk Crystals
REF: 41(15) (1990) 10437-46

AUTHOR: Erwin S. C. and Pickett W. E.
TITLE: "First-principles Supercell Studies of the Nitrogen Impurity in Diamond"
REF: 42(17) (1990) 11056-62

TITLE: "Temperature Dependence of the Thermal Conductivity of the Type IIA Diamond Crystals"
REF: (1991) 875

AUTHOR: Spits R. A., Derry T. E., Prins J. F. and Sellschop J. P. F.
TITLE: "The Redistribution of Implanted Atoms and Radiation Damage during the Implantation Doping of Diamond"
REF: B59-60 (1991) 1366-71
AUTHOR: Kimoto T., Tomikawa T., Nakagama S., Ishii M. and Fujita N.
TITLE: "Ohmic Electrode on Diamond Semiconductor Device and Its manufacture"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1991)

AUTHOR: Windischmann H. and Epps G.F.
TITLE: "Free-standing Diamond Membranes: Optical, Morphological and Mechanical Properties"
JNL: Diamond Relat. Mater.
REF: 1 (1992) 656

AUTHOR: Wei L., Kuo P.K. and Thomas R.L.
TITLE: "Thermal Diffusivity Measurement of Diamond Materials"
REF: 69 (1992) 251

AUTHOR: Kuo P.K., Wei L. and Thomas R.L.
TITLE: "Recent Development in the Thermal Diffusivity Measurements of Diamond Materials"
REF: 69 (1992) 175

TITLE: "The Fate of Implanted Fluorine-19 Ions in Diamond and Their Theoretical Modeling"

JNL: Mater. Sci. Eng., B

REF: B11(1-4) (1992) 227-34


TITLE: "Electron and Nuclear Structural Characterization of Natural, Synthetic, Homoeptaxial and Polycrystalline Low Pressure Chemically Vapor-deposited Diamond"

JNL: Mater. Sci. Eng., B

REF: B11(1-4) (1992) 243-8

AUTHOR: Derry T. E., Spits R. A. and Sellschop J. P. F.

TITLE: "Ion Beam Studies of the Static and Dynamic Properties of Dopants in Diamond"

JNL: Mater. Sci. Eng., B

REF: B11(1-4) (1992) 249-56

AUTHOR: Sideras-Haddad E., Connell S. H., Naicker V. V., Bharuth-Ram K., Sellschop J. P. F., Stemmet M. C. and Appel H.

TITLE: "Temperature Dependence of the Electric Field Gradient Parameters at Fluorine-19 Lattice Sites in Semiconducting and Insulating Diamonds"

JNL: Mater. Sci. Eng., B

REF: B11(1-4) (1992) 307-12
AUTHOR: Nazare M. H., Woods G. S. and Assuncao M. C.
TITLE: "The 2.526 eV Luminescence Band in Diamond"
JNL: Mater. Sci. Eng., B

and Baker J. M.
TITLE: "ENDOR and High-temperature EPR of the N3 Center in
Natural Type Ib Diamonds"
JNL: J. Phys.: Condens. Matter

AUTHOR: Sellschop J. P. F., Connell S. H., Madiba C. C. P.,
Sideras-Haddad E., Stemmet M. C., Bharuth-Ram K.,
Appel H., Kundig W., Patterson B.
and Holzschuh E.
TITLE: "Hydrogen in and on Natural and Synthetic Diamond"
REF: B68(1-4) (1992) 133-40

AUTHOR: Sideras-Haddad E., Connell S. H., Sellschop J. P. F.,
Bharuth-Ram K., Stemmet M. C., Naidoo S. and Appel H.
TITLE: "Beam Assisted Molecular Rearrangement Observed by
TDPAD for Fluorine Complexes in Diamond"
REF: B64(1-4) (1992) 237-41
AUTHOR: Ying X., Shen Y., Xue H., Liu J., Xing Z., Xu J. and Zhang F.
TITLE: "Determination of Optical Constant of Diamond Thin Films"

AUTHOR: Fazzio A., Martins da Cunha C. R. and Canuto S.
TITLE: "Ab-initio Cluster Calculation of Hyperfine Interactions and Total-energy Surfaces for Nitrogen in Diamond, Silicon and Germanium"
JNL: Mater. Sci. Forum
REF: 83-87 (1992) 463-7

AUTHOR: Pan L.S., Kania D.R., Han S., Ager III J.W., Lanstras M., Landen O.L. and Pianetta P.
TITLE: "Electrical Transport Properties of Undoped CVD Diamond Films"
JNL: Science
REF: 255 (1992) 830

AUTHOR: Lamaze G. P., Downing R. G., Pilione L., Badzian A. and Badzian T.
TITLE: "Analysis for Boron in CVD Diamond Surfaces Using Neutron Depth Profiling"
AUTHOR: Pham Van Huong
TITLE: "Diamond and Diamond Films Studied by Raman Spectroscopy"
REF: 292 (1993) 81-7

AUTHOR: Von Windheim J. A., Venkatesan V., Malta D. M. and Das K.
TITLE: "Electrical Characterization of Semiconducting Diamond Thin Films and Single Crystals"
REF: 22(4) (1993) 391-8

AUTHOR: Ramdas A.K., Rodriguez S., Grimsditch M., Anthony T.R. and Banholzer W.F.
TITLE: "Effect of Isotopic Constitution of Diamond on Its Elastic Constants: $^{13}$C Diamond, the Hardest Known Material"
REF: 71 (1993) 189

AUTHOR: Woods G. S., Kiflawi I., Luyten W. and Van Tendeloo G.
TITLE: "Infrared Spectra of Type IaB Diamonds"
REF: 67(6) (1993) 405-11
| AUTHOR:               | Woods G. S., Kiflawi I., Kanda H. and Evans T. |
| TITLE:               | "The Effect of Isotopic Changes on the (001) Platele Infrared Absorption in Diamond" |
| JNL:                 | Philos. Mag. B                                   |
| REF:                 | 67(5) (1993) 651-8                              |

| AUTHOR:               | Kiflawi I., Welbourn C. M. and Woods G. S. |
| TITLE:               | "One-phonon Absorption by Type IIa Diamonds" |
IV. MECHANICAL APPLICATIONS

AUTHOR: Thewlis J. and Davey A.R.
TITLE: "Thermal Expansion of Diamond"
JNL: Philosophical Magazine
REF: 1 (1956) 409

AUTHOR: McSkimin H.J., Andreatch, Jr P. and Glynn P.
TITLE: "The Elastic Stiffness Moduli of Diamond"
REF: 43 (1972) 985

AUTHOR: Spear K.E.
TITLE: "Diamond - Ceramic Coating of the Future"
REF: 72(2) (1989) 171

AUTHOR: Davidson J.L., Ramesham R. and Ellis C.
TITLE: "Synthetic Diamond Micromechanical Membranes, Cantilever Beams, and Bridges"
REF: 137 (1990) 3206
AUTHOR: Imai T., Nakahata H. and Fujimori N.
TITLE: "Surface-acoustic-wave Devices"
JNL: U.S. Patent
REF: (1990)

--------------------------------------------------------

AUTHOR: Nakahata H. and Fujimori N.
TITLE: "Surface-acoustic-wave Device"
JNL: U.S. Patent
US 5160869 A 3 Nov (1992)
US 90-634321 26 Dec 1990PRAI JP 89-339521
26 Dec 1989
REF: (1992)

--------------------------------------------------------

AUTHOR: Uegami K., Tamamura K. and Mineji S.
TITLE: "Working of Diamond by Heating in Hydrogen Atmosphere"
REF: 26(1) (1992) 14-19

--------------------------------------------------------
V. ELECTRONIC APPLICATIONS

AUTHOR: Bazhenov V.K., Vikulin I.M. and Gontar A.G.
TITLE: "Synthetic Diamonds in Electronics (Review)"
REF: 19 (1985) 829

AUTHOR: Collins A. T.
TITLE: "Diamond Electronic Devices—a Critical Appraisal"
REF: 4(8) (1989) 605

AUTHOR: Davis R. F.
TITLE: "Diamond and Silicon Carbide Thin Films: Present Status and Potential as Wide Band Gap Semiconducting Materials"
REF: 4(2) (1989) 81

AUTHOR: Hiraki A.
TITLE: "Application of Diamond Thin Film in Electronic Industry"
JNL: Denshi Zairyo
REF: 28(8) (1989) 22
AUTHOR: Kobashi K., Miyata K., Kumagai K., Inoue T., Tachibana H. and Nakaue A.
TITLE: "On Application of Diamond Films for Electronic Devices"
JNL: R&D, Res. Dev.
REF: 39(4) (1989) 43

AUTHOR: Gildenblat G.Sh., Grot S.A., Hatfield C.W., Wronski C.R., Badzian A.R., Badzian T. and Messier R.
TITLE: "High Temperature Schottky Diodes with Boron-doped Homoeptaxial Diamond Base"
REF: 25 (1990) 129

AUTHOR: Gildenblat G.Sh., Grot S.A., Hatfield C.W., Badzian A.R. and Badzian T.
TITLE: "High Temperature Schottky Diodes with Thin-film Diamond Base"
REF: 11(9) (1990) 371

AUTHOR: Gildenblat G.Sh., Grot S.A., Hatfield C.W. and Badzian A.R.
TITLE: "High Temperature Thin-film Diamond Field-effect Transistor Fabricated using a Selective Growth Method"
REF: 12 (1990) 37
AUTHOR: Ramesham R., Roppel T., Ellis C. and Rose M.F.
TITLE: "Fabrication of Microchannels in Synthetic Polycrystalline Diamond Thin Films for Heat Sinking Applications"
REF: 91-8 (1991) 615-24

AUTHOR: Geis M.W., Gregory J.A. and Pate B.B.
TITLE: "Capacitance-voltage Measurements on Metal-Silica-Diamond Structures Fabricated with (100)- and (111)-oriented Substrates"
REF: 38(3) (1991) 619

AUTHOR: Tokarev V. N., Semenov A. Yu. and Konov V. I.
TITLE: "Polishing of Diamond Films by Light"

AUTHOR: Grot S.A., Gildenblat G.S. and Badzian A.R.
TITLE: "Diamond Thin-film Recessed Gate Field-effect Transistors Fabricated by Electron Cyclotron Resonance Plasma Etching"
REF: 13(9) (1992) 462
AUTHOR: Nishimura K., Kobashi K., Miyauchi S., Kato R., Koyama H. and Saito K.

TITLE: "Methods for Forming Electrodes on Diamond Surfaces for Electronic Devices"

JNL: Ger. Offen.

REF: (1993)

---------------------------------------------------------------

AUTHOR: Naseem H. A., Meyyappan I., Prasad C. S. and Brown W. D.

TITLE: "Metallization of Diamond Substrates for Multi-chip Module Applications"


---------------------------------------------------------------
VI. TRIBOLOGY

AUTHOR: Bowden F.P. and Tabor D.
JNL: Book
REF: (1964) Vol. 2

AUTHOR: Bowden F.P. and Brookes C.A.
TITLE: "Frictional Anisotropy in Nonmetallic Crystals"
JNL: Proc. R. Soc. Lond. A
REF: 295 (1966) 244

AUTHOR: Wilks E.M. and Wilks J.
TITLE: "The Resistance of Diamond to Abrasion"
REF: 5 (1972) 1902

AUTHOR: Casey M. and Wilks J.
TITLE: "The Friction of Diamond Sliding on Polished Cube Faces of Diamond"
JNL: J. Phys. D.
REF: 6 (1973) 1772
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Reference</th>
</tr>
</thead>
</table>
AUTHOR: Hsiao-chu T. and Bogy D.B.

TITLE: "Characterization of Diamondlike Carbon Films and Their Application as Overcoats on the Thin Film Media for Magnetic Recording"


REF: A5(6) (1987) 3287

----------------------------------------

AUTHOR: Bi Z., Tokura H. and Yoshikawa M.

TITLE: "Study on Surface Cracking of Alumina Scratched by Single-point Diamonds"

JNL: J. Mater. Sci.

REF: 23(9) (1988) 3214

----------------------------------------

AUTHOR: Filatov Y. D., Rogov I. A., Rublev N. D. and Drakin I. V.

TITLE: "Evaluation of the Serviceability of Diamond Tools for Machining of Sound Guides Taking into Account the Relative Dielectric Constant of their Cutting Layer"

JNL: Sverkhtverd. Mater.

REF: (6) (1988) 27

----------------------------------------

AUTHOR: Gerchman M. C. and McLain B. E.

TITLE: "An Investigation of the Effects of Diamond Machining on Germanium for Optical Applications"


REF: 929 (1988) 94
AUTHOR: Igawa N., Shimada S. and Yoshinaga H.
TITLE: "Distinction of Diamond Single Crystals for Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Igawa N., Shimada S. and Yoshinaga H.
TITLE: "Manufacture of Diamond Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Igawa N., Shimada S., Yoshinaga H. and Kanijo E.
TITLE: "Manufacture of Diamond Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Ishizuka H. and Hosomi A.
TITLE: "Sintered Composites and Their Manufacture for Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)
AUTHOR: Ito T.
TITLE: "Diamond-coated Tool Materials"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Iwasa M. and Kinoshita M.
TITLE: "Determination of the Abrasion Wear of Ceramics from the Wear-track Shape"
JNL: Nippon Seramikkusu Kyokai Gakujutsu Ronbunshi
REF: 96(10) (1988) 1033

AUTHOR: Kapsa P. and Enomoto Y.
TITLE: "Sliding Damage on Hot-pressed and Sintered Silicon Nitride caused by a Diamond Tip Under Controlled Humidity"
JNL: Wear
REF: 127(1) (1988) 65

AUTHOR: Koriyama S., Hayashi H. and Akiyama M.
TITLE: "Diamond-coated Cutting Tool"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)
AUTHOR: Kuratomi T.
TITLE: "Manufacture of Sintered Diamonds for Tools"
JNL: Jpn. Kikai Tokkyo Koho
REF: (1988)

TITLE: "Auger Spectral Analysis of Films Formed by Metal Friction in Highly Dispersed Carbon-containing Media"
REF: 131(3) (1988) 489

AUTHOR: Kuwae Y. and Kamata M.
TITLE: "Manufacture of Highly Lubricating Materials by Diamond Plasma Processing"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Meyer H. R. and Wiemann H. J.
TITLE: "Diamond Coating of Hard Tools"
JNL: Ger. Offen.
REF: (1988)
AUTHOR: Miller D. E. and Heckroodt R. O.
TITLE: "Evaluating the Wear Resistance of Ceramics by Diamond Drilling"
JNL: Br. Ceram. Trans. J.
REF: 87(4) (1988) 129

AUTHOR: Morimoto S.
TITLE: "Diamond-coated Hard Alloy Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)

AUTHOR: Okada K., Uemura M. and Okitsu A.
TITLE: "Clean Surfaces of Metals Prepared by Scribing with a Diamond Tip"
REF: 33-34(1-4) (1988) 112

AUTHOR: Okuzumi A.
TITLE: "Diamond-coated Tungsten Tool"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)
AUTHOR: Ooshima K. and Matsumura T.
TITLE: "Diamond-like Materials with Low Friction Coefficient"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988) 3

AUTHOR: Samuels B. and Wilks J.
TITLE: "The Friction of Diamond Sliding on Diamond"
JNL: J. Mater. Sci.
REF: 23(8) (1988) 2846

AUTHOR: Sneddon M. V. and Hall D. R.
TITLE: "Polycrystalline Diamond: Manufacture, Wear Mechanism, and Implications for Bit Design"
JNL: JPT. J. PET. Technol.

AUTHOR: Sumi M.
TITLE: "Sintered Diamond-hard Alloy Composite for Drill Bits"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1988)
AUTHOR: Tanaka C., Date H., Nakao T. and Takahashi A.

TITLE: "Cutting Performance of Cermet, Ceramic, Cubic Boron Nitride (CBN), and Sintered Diamond Tools. 3. Cutting Performance of Ceramic Tools"

JNL: Mokuzai Gakkaishi

REF: 34(4) (1988) 298

---

AUTHOR: Tobioka M. and Ikegaya A.

TITLE: "Vapor-phase Coating with Diamond on Cutting Tool Tip"

JNL: Jpn. Kokai Tokkyo Koho

REF: (1988)

---

AUTHOR: Toge N.

TITLE: "Abrasives for Barrel Polishing and Manufacture of the Abrasives"

JNL: Jpn. Kokai Tokkyo Koho

REF: (1988)

---

AUTHOR: Uegami K., Tamamura K. and Jang K. K.

TITLE: "Lapping and Frictional Properties of Diamond and Characteristics of Diamond Cutting Tools"


REF: 17 (1988) 147
AUTHOR: Vasil'ev A. N. and Ivanidze V. N.
TITLE: "Effect of Temperature on Wear of Diamond Tool in Finishing of Metallic Optical Parts"
REF: (6) (1988) 43

AUTHOR: Viktorov G. N. and Pilipenko V. D.
TITLE: "Increased Wear Resistance of Diamond Bits through Treatment with Liquid Nitrogen"
REF: (4) (1988) 20

AUTHOR: Wapler H. and Juchem H. O.
TITLE: "Diamond Abrasives for Machining of Glasses"
JNL: Sprechsaal
REF: 121(9) (1988) 795

AUTHOR: Yoshikawa M. and O-Otake N.
TITLE: "Diamond Growth by Vapor Deposition and Its Application to Cutting Tools"
REF: 22(3) (1988) 171
AUTHOR: Cerceau J. M.
TITLE: "Abrasive Composite Diamond Compacts for Drills and Machine Tools"
JNL: Fr. Demande
REF: (1989)

AUTHOR: Danilova F. B., Bryk M. T. and Gorbunov A. E.
TITLE: "New Method for Preparation of Metal-polymer Mixtures for Diamond Tools"
JNL: Sverkhtverd. Mater.
REF: (3) (1989) 33

AUTHOR: Domuladzhanov I. K., Vashchenko A. N., Primak L. P. and Sukhobrus A. A.
TITLE: "Effect of Cutting Fluids on the Nature of Fracture of Ferrites in Diamond Machining"
JNL: Sverkhtverd. Mater.
REF: (2) (1989) 44

AUTHOR: Freeman C. J. and Field J. E.
TITLE: "Friction of Diamond, Syndite and Amborite Sliding on Various Alloys"
JNL: J. Mater. Sci.
REF: 24(3) (1989) 1069
AUTHOR: Gardos M.N. and Ravi K.V.
TITLE: "Tribological Behavior of CVD Diamond Films"
REF: 89-12 (1989) 475

AUTHOR: Hoshino S. and Fujii K.
TITLE: "Optical Disk Containing Diamond Protective Film"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

AUTHOR: Igawa N., Shimada N., Yoshinaga H. and Nishimura K.
TITLE: "Diamond Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

AUTHOR: Igawa N., Shimada S., Yoshinaga H. and Nishimura K.
TITLE: "Design of Diamond Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Juchem H. O.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Grinding of Metallic Workpieces with Diamond and Cubic Boron Nitride&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Sprechsaal</td>
</tr>
<tr>
<td>REF:</td>
<td>122(4) (1989) 351</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Kolmogorov G. L., Trofimov V. N. and Konnikov G. G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Wear Resistance of a Diamond Tool During Drawing of Copper-nickel Wire&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Trenie Iznos</td>
</tr>
<tr>
<td>REF:</td>
<td>10(4) (1989) 599</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Kondo Y., Tsukuda A., Kuroshima Y. and Okada S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Consideration to Chip Generation in Grinding of Ceramic Materials&quot;</td>
</tr>
<tr>
<td>JNL:</td>
<td>Nippon Seramikkusu Kyokai Gakujutsu Ronbunshi</td>
</tr>
<tr>
<td>REF:</td>
<td>97(5) (1989) 513</td>
</tr>
</tbody>
</table>
AUTHOR: Kopp B. Y., Kolchemanov N. A., Gorbunov A. E., Kangun V. R. and Fedotov S. G.
TITLE: "Copper-alloy Binder for Diamond Polishing Tools"
REF: (28) (1989) 78

-----------------------------------------------

AUTHOR: Nakamura T. and Nakai T.
TITLE: "Sintering of Diamond Tool for Cutting or Rock Drilling"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1989)

-----------------------------------------------

AUTHOR: Oki T., Fukuta Y., Hisada E. and Aoki S.
TITLE: "Coated Abrasive Grains, and Their Manufacture"
REF: (1989)

-----------------------------------------------

AUTHOR: Patterson D.E., Hauge R.H. and Margrave J.L.
TITLE: "Fluorinated Diamond Films, Slabs, and Grit"
REF: 140 (1989) 351

-----------------------------------------------
AUTHOR: Pilyankevich A. N., Britun V. F. and Oleinik G. S.

TITLE: "Microstructure in Fragmentation of Covalent Crystals Under High Pressures and Temperatures"


REF: (4) (1989) 78

---

AUTHOR: Schwaemmle J.

TITLE: "Diamond Dressing Rolls having High Accuracy and Thermal Stability"

JNL: U.S. Patent

REF: (1989)

---

AUTHOR: Spear K.E.

TITLE: "Diamond - Ceramic Coating of The Future"


REF: 72(2) (1989) 171

---

AUTHOR: Talantsev L. L., Karyuk G. G., Aranovich A. O. and Grigor'ev O. N.

TITLE: "Diamond Tools for Polishing Silicon Plates"

JNL: Poroshk. Metall. (Kiev)

REF: (2) (1989) 93
AUTHOR: Tkhagapsoev K. G., Khapachev B. S. and Goov A. A.

TITLE: "Life of Dressing Tools with Diamond Crystals of Different Shape"

JNL: Sverkhtverd. Mater

REF: (3) (1989) 36

-----------------------------

AUTHOR: Wong M.S., Meilunas R., Ong T.P. and Chang R.P.H.

TITLE: "Tribological Properties of Diamond Films Grown by Plasma-enhanced Chemical Vapor Deposition"


REF: 54(20) (1989) 2006

-----------------------------

AUTHOR: Wong M.S., Meilunas R., Ong T.P. and Chang R.P.H.

TITLE: "Thin Diamond Films for Tribological Applications"


REF: 140 (1989) 483

-----------------------------

AUTHOR: Yagi M., Saijo K., Katsumura Y. and Suzuki H.

TITLE: "Cutting Performance of Diamond-coated Tools for Al-18 Mass %Si Alloy"

JNL: Keikinzoku


-----------------------------
AUTHOR: Zhidkov A.B.
TITLE: "Synthesis of Titanium Compounds with Nitrogen on the Surface of Diamond"
REF: 26 (1990) 297

AUTHOR: Brezoczky B. and Seki H.
TITLE: "Triboattraction: Friction under Negative Load"
JNL: Langmuir
REF: 6 (1990) 1141

AUTHOR: Mastyugin L.I. and Minets V.V.
TITLE: "Effect of the Concentration of Diamonds on the Performance of Tools in Grinding of Glass"
JNL: Sverkhtverd. Mater.
REF: 2 (1990) 55

AUTHOR: Inuzuka T. and Koizumi S.
TITLE: "Epitaxial Growth of Diamond Thin Films on Cubic Boron Nitride Surfaces"
REF: 1352 (Diamond Opt. 3) (1990) 2
AUTHOR: Bogatyreva G.P., Mikhonovskaya A.N. and Vashchenko A.N.

TITLE: "Effect of Chemical Treatment on the Surface Structure of Diamond-Hard Alloy Inserts and Cemented Carbide Holders"


REF: 24 (1990) 71

---------------------------------------------------------------

AUTHOR: Ong T.P. and Chang R.P.H.

TITLE: "Properties of Diamond Composite Films Grown on Iron Surfaces"


REF: 58 (1991) 358

---------------------------------------------------------------

AUTHOR: Degawa J. and Fujimori N.

TITLE: "Composite Diamond Abrasive Grains for Precision Grinding and Their Manufacture"

JNL: Jpn. Kokai Tokkyo Koho

REF: (1991)

---------------------------------------------------------------

AUTHOR: Shin I.G., Dultaev N.K. and Musakhanov R.A.

TITLE: "Calculation of Residual Stresses in the Surface Layer of Cemented Carbide Products in Diamond Turning"

JNL: Sverkhtverd. Mater.

REF: 2 (1991) 51-8

---------------------------------------------------------------
AUTHOR: Saijo K., Niwa M., Yagi M. and Shibuki K.
TITLE: "Diamond Coating of Sintered Hard Alloy"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1991)

AUTHOR: Oakes J., Pan X.X., Haubner R. and Lux B.
TITLE: "Chemical Vapor Deposition Diamond Coatings on Cemented Carbide Tools"
REF: 47 (1-3) (1991) 600-7

AUTHOR: Grdos M.N., Soriano B.L., Patterson D.E., Hauge R.H. and Margrave J.L.
TITLE: "SEM Tribometry of Fluorinated CVD Diamond Coatings"
REF: 91-8 (1991) 365

AUTHOR: Hayward I.P.
TITLE: "Friction and Wear Properties of Diamonds and Diamond coatings"
REF: 49 (1991) 554
AUTHOR: Saijo K. and Taniguchi Y.
TITLE: "Diamond Coating of Sintered Alloy Parts"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1991)

AUTHOR: Lux B. and Haubner R.
TITLE: "Nucleation and Growth of Wear-resistant Diamond Coatings"
REF: 91 (1991) 314

AUTHOR: Okamura T. and Sakurai K.
TITLE: "Diamond Coating of Hard-alloy Cutting Tools"
JNL: Jpn. Kokai Tokkyo Koho
REF: (1991)

AUTHOR: Huang T.H., Kuo C.T. and Lin T.S.
TITLE: "The Role of Cemented Tungsten Carbide Substrate Morphology on the Diamond Film Growth with and Cracking Resistance"
REF: 26 (1992) 1481

TITLE: "Nanoscale Investigation of Indentation, Adhesion and Fracture of Diamond (111) Surfaces"


REF: 271 (1992) 57

AUTHOR: Repenning D. and Mordike B.

TITLE: "Contacting Pairs with Decreased Friction and Their Manufacture"

JNL: Ger. Offen.

REF: (1992)

AUTHOR: Kikuchi N. and Eto H.

TITLE: "Diamond-coated Composite Ceramics"

JNL: Jpn. Kokai Tokkyo Koho
JP 91-47593 20 Feb 1991

REF: (1992)

AUTHOR: Omori N. and Nomura T.

TITLE: "Formation of Even Surfaces on Diamond-coated Cutting Tools"

JNL: Jpn. Kokai Tokkyo Koho
JP 04260694 A2 16 Sep (1992) Heisei
JP 91-45732 18 Feb 1991

REF: (1992)
AUTHOR: Belak J. and Stowers I. F.
TITLE: "The Indentation and Scraping of a Metal Surface: a Molecular Dynamics Study"
JNL: NATO ASI Ser., Ser. E
REF: 220 (1992) 511-20

AUTHOR: Hayward I. P., Singer I. L. and Seitzman L. E.
TITLE: "Effect of Roughness on the Friction of Diamond on CVD Diamond Coatings"
JNL: Wear

TITLE: "Effects of Chemically Bound, Flexible Hydrocarbon Species on the Frictional Properties of Diamond Surfaces"

AUTHOR: Huang T. H., Kuo C. T. and Lin T. S.
TITLE: "Tribological Behavior of Chemical Vapor Deposition Diamond Films on Various Cutting Tools"
REF: 56(2) (1993) 105-8

TITLE: "Atomic Scale Friction of a Diamond Tip on Diamond (100) and (111) Surfaces"


-------------------------------------------------------------------------------------------------

AUTHOR: Chang Z., Ma Z., Shen J., Chu X., Zhu C., Wang J., Pang S. and Xue Z.

TITLE: "Diamond Tips and Nanometer-scale Mechanical Polishing"


REF: 70/71 (1993) 407
VII. OPTICAL

AUTHOR: Elliott R.J.
TITLE: "Intensity of Optical Absorption by Excitons"
JNL: Physical Review
REF: 108 (1957) 1384

AUTHOR: Smith S.D. and Taylor W.
TITLE: "Optical Phonon Effects in the Infra-red Spectrum of Acceptor Centres in Semiconducting Diamond"
REF: 79 (1962) 1142

AUTHOR: Prior J.R. and Champion F.C.
TITLE: "Electroluminescence in Diamond"
REF: 80 (1962) 849

AUTHOR: Philipp H.R. a:d "Aft E.A.
TITLE: "Optical Properties of Diamond in the Vacuum Ultraviolet"
JNL: Physical Review
REF: 127 (1962) 159
AUTHOR: Walker W.C. and Osantowski J.
TITLE: "Ultraviolet Optical Properties of Diamond"
JNL: Physical Review
REF: 134 (1964) A153

AUTHOR: Phillip H.R. and Taft E.A.
TITLE: "Kramers-Kronig Analysis of Reflectance Data for Diamond"
JNL: Physical Review
REF: 136 (1964) A1445

AUTHOR: Dean P.J.
TITLE: "Bound Excitons and Donor-acceptor Pairs in Natural and Synthetic Diamond"
JNL: Physical Review
REF: 139 (1965) A588

AUTHOR: Stenman F.
TITLE: "Width of the 1332-cm-1 Raman Line in Diamond"
JNL: Journal of Applied Physics
REF: 40 (1969) 4164
AUTHOR: Kiflawi I. and Lang A.R.
TITLE: "Linearly Polarized Luminescence from Linear Defects in Natural and Synthetic Diamond"
JNL: Philosophical Magazine
REF: 30 (1974) 219

AUTHOR: Davies G. and Hamer M.F.
TITLE: "Optical Studies of the 1.945 eV Vibronic Band in Diamond"
JNL: Proc. R. Soc. Lond. A
REF: 348 (1976) 285

AUTHOR: Davis G.
TITLE: "The Optical Properties of Diamond"
JNL: Chem. Phys. Carbon
REF: 13 (1977) 1

AUTHOR: Lang A.R.
TITLE: "Polarized Infra-red Cathodoluminescence from Synthetic Diamonds"
JNL: Philosophical Magazine B
REF: 41 (1980) 689
AUTHOR: Pennycook S.J., Brown L.M. and Craven A.J.
TITLE: "Observation of Cathodoluminescence at Single Dislocations by STEM"
JNL: Philos. Mag. A
REF: 41 (1980) 589

AUTHOR: Gerchman M. C. and McLain B. E.
TITLE: "An Investigation of the Effects of Diamond Machining on Germanium for Optical Applications"
REF: 19 (1980) 84

AUTHOR: Woods G.S. and Collins A.T.
TITLE: "The 1450cm⁻¹ Infrared Absorption in Annealed, Electron-irradiated Type I Diamond"
REF: 15 (1982) L949

AUTHOR: Davies G., Collins A.T. and Spear P.
TITLE: "Sharp Infra-red Absorption Lines in Diamond"
JNL: Solid State Communications
REF: 49 (1984) 433
AUTHOR: Rand S.C. and DeShazer L.G.
TITLE: "Visible Color-center Laser in Diamond"
JNL: Optics Letters
REF: 10 (1985) 481

AUTHOR: Feldman A., Farabaugh D. N., Sun Y. N. and Etz E. S.
TITLE: "Diamond, a Potentially New Optical Coating Material"
REF: 756 (1988) 246

AUTHOR: Rand S.C.
TITLE: "Ultraviolet Four-wave Mixing and Phase Conjugation with Metastable Color-center States in Diamond"
REF: 13(2) (1988) 140

AUTHOR: Lin A.L., Stapelbroek M.G., Ravi K.V. and Peters M.
TITLE: "Diamond Films for Antireflection Coating of Silicon Infrared Detectors"
REF: 89(12) (1989) 261
AUTHOR: Ong T.P. and Chang R.P.H.
TITLE: "Low-temperature Deposition of Diamond Films for Optical Coatings"
REF: 55(20) (1989) 2063

AUTHOR: Feng T.
TITLE: "Correlation of Optical Properties and Surface Roughness of Polycrystalline Diamond Films"
REF: 1146 (Diamond Opt. 2) (1990) 159

TITLE: "Light-induced Variations of Optical Properties of Diamond-like Films"
REF: 47 (1-3) (1991) 269-78

AUTHOR: Cong Y., Collins R.W., Messier R., Vedam K., Epps G.F. and Windischmann H.
TITLE: "Spectroscopic Ellipsometry Study of the Optical Properties of Thin Film Diamond and Diamond Surfaces in Real Time during Ion Beam Etching"
REF: (1991) 735
| AUTHOR: | Wild C., Mueller-Sebert W., Eckermann T. and Koidl P. |
| TITLE: | "Polycrystalline Diamond Films for Optical Applications" |
| JNL: | Mater. Sci. Monogr. |
| REF: | 73 (1991) 197 |

| AUTHOR: | Robins L. H., Farabaugh E. N. and Feldman A. |
| TITLE: | "Determination of the Optical Constants of Thin Chemical-vapor-deposited Diamond Windows from 0.5 to 6.5 eV" |
| REF: | (1991) |

| AUTHOR: | Okano K., Iwasaki T., Kiyota H., Kurosu T. and Lida M. |
| TITLE: | "Characterization of Semiconducting Diamond Film and Its Application to Electronic Devices" |
| JNL: | Thin Solid Films |
| REF: | 206 (1991) 183 |

| AUTHOR: | Ying X., Shen Y., Xue H., Liu J., Xing Z., Xu J. and Zhang F. |
| TITLE: | "Determination of Optical Constant of Diamond Thin Films" |
AUTHOR: Harker A. B. and DeNatale J. F.

TITLE: "Diamond Gradient Index 'Moth-eye' Antireflection Surfaces for LWIR Windows"


REF: 1760 (1992) 261-7

---

AUTHOR: Loechel B., Huber H. L., Klages C. P., Schaefer L. and Bluhm A.

TITLE: "Diamond Membrane Based x-ray Mask"

JNL: J. Vac. Sci. Technol., B

REF: 10(6) (1992) 3217-20

---

AUTHOR: Sussman R. S.

TITLE: "Radiation Absorber Comprising a Chemical Vapor Deposited Diamond Film Having Special Surface"

GB 2253416 Al 9 Sep (1992)
GB 92-3813 21 Feb (1992)

REF: (1992)
VIII. BOOKS

AUTHOR: Manuel H.E.
TITLE: "Diamonds and Precious Stones"
JNL: Books
REF: (John Camden Hotten, Piccadilly; London 1867)

AUTHOR: Bruton E.
TITLE: "Diamonds"
JNL: Books
REF: (Chilton Book Co., Philodelphia 1971)

AUTHOR: Collins A.T. and Lightowlers E.C.
TITLE: "In 'the Properties of Diamond', edited by Field J.E."
JNL: Books
REF: (Academic, London 1979)

AUTHOR: Davies G.
TITLE: "Diamond"
JNL: Books
REF: (Bristol: A. Hilger, 1984)
AUTHOR: Evans S.


JNL: Books

REF: (Academic, London 1992)
IX. REVIEWS AND BIBLIOGRAPHY

AUTHOR: Thomas J.M. and Evans E.L.
TITLE: "Surface Chemistry of Diamond: A Review"
JNL: Diamond Res.
REF: (1975) 2

AUTHOR: Loubser J.H.N. and Van Wyk J.A.
TITLE: "Electron Spin Resonance in the Study of Diamond"
REF: 41 (1978) 4885

AUTHOR: Haneman D.
TITLE: "Semiconductor Surfaces"
JNL: Advances in Physics
REF: 31 (1982) 165

AUTHOR: Woollam J.A., Chang H. and Natarajan V.
TITLE: "Diamondlike Carbon - a Bibliography of Published Papers and Report"
JNL: Applied Physics Communications
REF: 5(4) (1985-6) 263
AUTHOR: Pate B.B.
TITLE: "The Diamond Surface: Atomic and Electronic Structure"
JNL: Surface Science
REF: 165 (1986) 83

AUTHOR: Sato Y., Kano M. and Setaka N.
TITLE: "Is Diamond the New Wonder Material?"
JNL: Science
REF: 234 (1986) 1074

AUTHOR: Angus J.C. and Hayman C.C.
TITLE: "Low Pressure, Metastable Growth of Diamond and 'Diamondlike' Phases"
JNL: Science
REF: 241 (1988) 913

AUTHOR: Atkinson W. J. and Smith C. B.
TITLE: "Diamonds Overview"
REF: (1988) 231
AUTHOR: Angus J.C.
TITLE: "History and Current Status of Diamond Growth at Metastable Conditions"
REF: 89-12 (1989) 1

AUTHOR: Austin G.T.
TITLE: "Diamond"
REF: 68(5) (1989) 1038

AUTHOR: Yarbrough W. A. and Messier R.
TITLE: "Current Issues and Problems in the Chemical Vapor Deposition of Diamond"
JNL: Science
REF: 247 (1990) 688
X. CONFERENCES

AUTHOR: Schluter M.
TITLE: "In 'Thin Films and Interfaces (proceedings of the Materials Research Society 1981 Annual Meeting, Boston)'"
JNL: Book

AUTHOR: Bendow B.
TITLE: "Proceedings of the 1982 DARPA Workshop on Diamond Like Carbon Coatings"
JNL: Book
REF: (BDM Corp, Albuquerque, 1983).

AUTHOR: Dismukes J.P., Purdes A.J., Meyerson B.S., Moustakas T.D., Spear K.E., Ravi K.V. and Yoder M.; Editors
TITLE: "Proceedings of the 1st International Symposium on Diamond and Diamond-like Films"
JNL: (The Electrochemical Society, Inc.: Pennington, N. J.)
REF: (1989) 679
AUTHOR: National Research Council (U.S.) Committee on Superhard Materials


REF: (1990)

------------------------------------------------------------------------------------------------------------------------

AUTHOR: Purdes A.J., Angus J.C., Davis R.F., Meyerson B.M., Spear K.E. and Yoder M.; Editors

TITLE: "Proceedings of the 2nd International Symposium on Diamond Material"

JNL: (The Electrochemical Society, Inc.: Pennington, N. J.) 670pp

REF: (1991)

------------------------------------------------------------------------------------------------------------------------

AUTHOR: NATO Advanced Study Institute on Diamond and Diamond-like Films and Coatings

TITLE: "Diamond and Diamond-like Films and Coatings"

JNL: (Plenum Press, New York)

REF: (1991)

------------------------------------------------------------------------------------------------------------------------

AUTHOR: Gippius A. A., Helbig R. and Sellschop J. P. F.; Editors


JNL: (North-Holland: Amsterdam, Neth.), 379 pp.

REF: (1992)

------------------------------------------------------------------------------------------------------------------------
<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Messier R.; Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>JNL:</td>
<td>(Mater. Res. Soc.: Pittsburgh, PA)</td>
</tr>
<tr>
<td>REF:</td>
<td>(1992)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR:</th>
<th>Davis R.F.; Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>&quot;Diamond Films and Coatings: Development, Properties, and Applications</td>
</tr>
<tr>
<td>JNL:</td>
<td>(Noyes Pub.: Park Ridge, N.J.)</td>
</tr>
<tr>
<td>REF:</td>
<td>(1993)</td>
</tr>
</tbody>
</table>
XI. POPULAR LITERATURE

AUTHOR: Bachmann P.K. and Messler R.
TITLE: "Emerging Technology of Diamond Thin Films"
JNL: Chem. Eng. News
REF: 67(20) (1989) 30

AUTHOR: Feder B.J.
TITLE: "Industry's Growing Romance with Diamonds"
JNL: The New York Times
REF: Wed, Feb 21, 1990

AUTHOR: Koshland, Jr. D.E.
TITLE: "The Molecule of the Year"
JNL: Science
REF: 250 (1990) 1637

AUTHOR: Moffat A.S.
TITLE: "When Diamonds Met Buckyballs"
JNL: Science
REF: 254 (1991) 800