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## FOREWORD

Volume 3 of Unclassified Publications of Lincoln Laboratory lists reports published from 15 September 1969 to 15 September 1971, as well as updated information on earlier publications.

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Accepted for the Air Force  
Joseph R. Waterman, Lt. Col., USAF  
Chief, Lincoln Laboratory Project Office

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	<u>DDC No.</u>		<u>DDC No.</u>
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## TECHNICAL REPORTS

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405	On-Line Graphical Specification of Computer Procedures	W. R. Sutherland	23 May 1966	AD-639734
454	Optical Communication Through Multiple-Scattering Media	H. M. Heggstad	22 Nov. 1968	AD-688850
458	Observations of OH Radio Emission Sources	J. A. Ball	23 May 1969	AD-704572
468	Quantization Effects in Digital Filters	C. J. Weinstein	21 Nov. 1969	AD-706862
469	Automatic Orbit Control of the Lincoln Experimental Satellite LES-6	A. A. Braga-Illa	10 July 1969	AD-697955
470	Dynamic Solutions for Single and Coupled Microstrip Lines	E. J. Denlinger	19 Nov. 1969	AD-708720
471	Variable-Coverage Communications Antenna for LES-7	A. R. Dion	17 Oct. 1969	AD-700760
473	Development of UHF Switch for LES-6 Satellite	R. N. Assaly	4 Dec. 1969	AD-710612
474	Millstone Hill Thomson Scatter Results for 1965	J. V. Evans	8 Dec. 1969	AD-707501
475	A Technique for Synthesizing Signals and Their Matched Filters	B. Loesch E. M. Hofstetter J. P. Perry	29 Dec. 1969	AD-704574
476	Balloon-Flight Instrumentation for Solar-Cell Measurements	F. W. Sarles, Jr. W. C. Haase P. F. McKenzie	23 Jan. 1970	AD-707134
477	Incoherent Scatter Measurements of F-Region Density, Temperatures, and Vertical Velocity at Millstone Hill	J. V. Evans R. F. Julian W. A. Reid	6 Feb. 1970	AD-706863
478	Very Long Baseline Interferometry as a Means of Worldwide Time Synchronization	A. E. E. Rogers J. M. Moran, Jr.	17 Feb. 1970	AD-704134
480	Magnetic Moment Versus Temperature Curves of Ferrimagnetic Garnet Materials	G. F. Dionne	9 Sept. 1970	AD-715284
481	Millstone Hill Thomson Scatter Results for 1966	J. V. Evans	19 Jan. 1971	AD-725742
482	Millstone Hill Thomson Scatter Results for 1967	J. V. Evans	22 July 1971	
483	Description of the Avon-to-Westford Experiment	R. K. Crane	29 Apr. 1971	

## TECHNICAL NOTES

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1965-32	A Generalization of Newtonian Aerodynamic Theory to Include Viscous Effects	H. Schneider A. Freed	26 July 1965	AD-468972
1967-2	Three Fortran Programs that Perform the Cooley-Tukey Fourier Transform	N. M. Brenner	28 July 1967	AD-657019
1969-29	Selected Materials for Use in Microsound Circuits and Components: Their Elastic, Piezoelectric, and Dielectric Parameters	D. H. Chung	8 May 1969	AD-692111
1969-34	Automatic Microwave Circuit Analysis with GCP-MOD2	W. J. Getsinger T. E. Maggiamomo	10 July 1969	AD-697954
1969-40	LASA Decision Probabilities for $M_S - m_b$ and Modified Spectral Ratio	R. T. Lacoss	23 July 1969	AD-692451
1969-41	Estimation of Seismicity and Network Detection Capability	E. J. Kelly R. T. Lacoss	16 Sept. 1969	AD-695044
1969-42	Some FORTRAN Subprograms Used in Astronomy	J. A. Ball	16 July 1969	AD-691816
1969-44	Continuous Coverage of the North Polar Region with Only Two Communications Satellites	J. U. Beusch	4 Sept. 1969	AD-698751
1969-45	M-ary Channel Quantization for Sequential Decoding	R. Teoste	20 Aug. 1969	AD-693196
1969-47	Probability Density Function Estimation (with Applications to Receiver Design for Reception in Non-Gaussian Noise)	J. E. Evans	29 Aug. 1969	AD-694552
1969-48	Efficient Realization of Boolean Functions by Pruning NAND (NOR) Trees	B. E. White	2 Sept. 1969	AD-693565
1969-49	A New Method of Generating Gaussian Random Variables by Computer	C. M. Rader	18 Sept. 1969	AD-695042
1969-51	The Millstone Hill Propagation Study	J. V. Evans, Editor	26 Sept. 1969	AD-701939
1969-53	Predictions of Transhorizon Field Strengths Using Modeling Techniques	R. K. Crane	17 Oct. 1969	AD-698335

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1969-54	Principles of Wideband Unidirectional Piezoelectric Transducers	R. A. Waldron	4 Nov. 1969	AD-698750
1969-55	Computer Generated Speech Spectrograms	A. V. Oppenheim	28 Nov. 1969	AD-701020
1969-58	A Multi-Level Phase Continuous FSK Modulator	M. P. Mullo	10 Nov. 1969	AD-702099
1969-59	Negative Conductivity in Solid State Avalanche Diodes	H. Berger	16 Dec. 1969	AD-701395
1969-60	Dispersion Relations for IMPATT Diodes	H. Berger	16 Dec. 1969	AD-701021
1969-61	Moderate Cost UHF Satellite Communications Without Exclusive Frequency Allocations	I. L. Lebow C. W. Niessen T. S. Seay	3 Dec. 1969	AD-702100
1969-62	Frequency Domain Analysis of a Class of Nonlinear Networks	J. Gorski-Popiel	26 Nov. 1969	AD-710200
1970-1	Water-Wave Effects on Radio Wave Propagation in the Ocean	M. L. Burrows	2 Jan. 1970	AD-700323
1970-3	The Results of the LES-5 and LES-6 RFI Experiments	W. W. Ward R. L. Sicotte K. H. Hurlbut C. J. Zamites, Jr.	6 Feb. 1970	AD-703738
1970-3 (Supp. 1)	The Results of the LES-5 and LES-6 RFI Experiments	W. W. Ward R. L. Sicotte K. H. Hurlbut C. J. Zamites, Jr.	2 July 1970	AD-709766
1970-5	Report on a Weather Radar Study	J. W. Meyer, Editor	5 Feb. 1970	AD-701742
1970-6	DEANE: A Computer Aid for Ballistic Missile Defense Analysis	D. L. McCraith	4 Nov. 1970	AD-727045
1970-7	Transcutaneous Spectral Blood-Flowmeter	M. P. Fraser	26 Mar. 1970	AD-707136
1970-8	VHF Antenna System for Aircraft	M. L. Rosenthal	12 Mar. 1970	AD-705170
1970-9	On Estimating Explosive Source Parameters at Teleseismic Distances	J. R. Filson	8 July 1970	AD-709767
1970-10	Design of Stable, High Efficiency, High Power Upper Sideband Upconverters	R. L. Sicotte	17 June 1970	AD-709362

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1970-11	Simple Estimates of Wake Velocity Parameters	E. M. Hofstetter	23 Apr. 1970	AD-705590
1970-12	Optimal Mismatched Filter Design for Radar Ranging, Detection and Resolution	R. J. McAulay J. R. Johnson	23 Apr. 1970	AD-706397
1970-15	Signal Processing Results for Continental Aperture Seismic Array	J. Capon	15 May 1970	AD-707863
1970-17	A Theory of Multiple Modes in Avalanche Diodes	H. Berger	9 June 1970	AD-711923
1970-18	Error Performance Bounds for Two Receivers for Optical Communication and Detection	E. A. Bucher	10 Nov. 1970	AD-718099
1970-19	High-Efficiency Modes in Avalanche Diodes	H. Berger R. J. Sasiela	3 Aug. 1970	AD-710201
1970-20	The Millstone Hill Propagation Study: Progress in FY 1970	J. V. Evans, Editor	2 Dec. 1970	AD-717156
1970-21	A Gridded Thick Film Metalization Structure Employed in Multichip Circuit Fabrication	H. H. Pichler	4 Aug. 1970	AD-710614
1970-27	On the Theory of Localized One-Electron States in Perfect Crystals	T. A. Kaplan P. N. Argyres	1 Sept. 1970	AD-711372
1970-29	A Comparison Between Monostatic and Bistatic Scattering from Rain and Thin Turbulent Layers	R. K. Crane	6 Oct. 1970	AD-N71-12395
1970-30	Processing a Partially Coherent Large Seismic Array for Discrimination	R. T. Lacoss G. T. Kuster	27 Nov. 1970	AD-715917
1970-31	Fabrication of Flexible Loop Antenna	M. L. Burrows A. H. Levasseur E. B. Murphy O. G. Nackoney C. B. Swanton	5 Oct. 1970	AD-717718
1970-32	Velocity Requirements for Rapid Intercept with Mid-course Corrections	M. E. Ash	23 Oct. 1970	AD-718421
1970-33	Degradation of CdS Thin Film Solar Cells in Different Environments	A. G. Stanley	6 Nov. 1970	AD-715285

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1970-37	Wind Pressure Distributions on Radomes in Gradient Flows During and After Construction	F. H. Durgin W. R. Fanning	10 Dec. 1970	
1970-38	An Improved Method for the Design of Wind Tunnel Velocity Profile Grids	F. H. Durgin	30 Dec. 1970	
1970-39	A Cockpit Situation Display of Selected NAS/ARTS Data	R. W. Bush H. Blatt F. X. Brady	15 Dec. 1970	AD-716425
1970-41	Two-Dimensional Windows	T. S. Huang	31 Dec. 1970	AD-717159
1970-42	A New Technique for the Design of Non-Recursive Digital Filters	E. M. Hofstetter	15 Dec. 1970	AD-717163
1970-43	Airborne Severe Storm Surveillance, Volume I: Summary and Recommendations	J. W. Meyer, Editor	17 Dec. 1970	AD-717719
1970-45	Ray Tracing in Arbitrarily Heterogeneous Media	B. R. Julian	31 Dec. 1970	AD-720795
1971-2	An Analysis of Finite Rise and Fall Time Current Excitation of TRAPATT Diodes	T. G. Bryant J. D. Welch	7 Jan. 1971	AD-717720
1971-3	ELF Propagation Study (Phase 1 - Summer 1970)	D. P. White D. K. Willim	11 Jan. 1971	AD-718100
1971-5	Design of Multi-Region Pressure Vessels Using Maximum Shear Theory	A. R. Leyenaar T. E. Stack	27 Jan. 1971	AD-718970
1971-6	Orbit Averaged Variation of Earth Satellite Orbital Elements	M. E. Ash	22 Feb. 1971	AD-720823
1971-7	Earth Coverage ("Footprint") of a Satellite-Borne Antenna	S. L. Zolnay	5 Feb. 1971	AD-719763
1971-8	The Graded-Gap Semiconductor Photoemitter	I. Melngailis	22 Jan. 1971	AD-720796
1971-10	LES-8/9 Attitude Control System Numerical Simulation	C. H. Much N. P. Smith F. W. Floyd E. H. Swenson	5 Feb. 1971	AD-726096
1971-11	Seismic Scaling of Explosive Source Functions Using Teleseismic P Waves	C. W. Frasier	14 Apr. 1971	AD-723638

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1971-12	Optimal Measurement Strategies for Linear Stochastic Systems	M. Athans	26 Feb. 1971	AD-724073
1971-13	Analysis of Differential Line Length Diplexers and Long-Stub Filters	J. C. Lee	18 Feb. 1971	AD-721231
1971-15	Final Report: Development of a $10^7$ Bit Magnetic Film Memory	J. I. Raffel A. H. Anderson R. Berger T. S. Crowther T. O. Herndon M. L. Naiman C. E. Woodward	10 June 1971	AD-727768
1971-19	An Airborne Traffic Situation Display System	R. W. Bush H. Blatt F. X. Brady	23 June 1971	AD-727769
1971-20	Stability of Two-Dimensional Recursive Filters	T. S. Huang	2 June 1971	AD-728213
1971-21	A Theory of Multiple Antenna AMTI Radar	E. M. Hofstetter C. J. Weinstein C. E. Muehe	8 Apr. 1971	AD-724076
1971-22	General Purpose Digital Signal Processing Architectures for Radar	B. Gold	16 Apr. 1971	AD-724685
1971-25	Performance of a 110-Wavelength EHF Waveguide Lens	A. R. Dion	23 Apr. 1971	AD-724686
1971-29	An Acquisition and Tracking Receiver for Satellite-to-Satellite Relaying at 55 GHz	S. L. Zolnay	11 May 1971	AD-728626
1971-31	Error Rates for Square-Law Combining Receivers	S. L. Bernstein	14 May 1971	AD-725040
1971-32	A New Geometrical Theorem Discovered with the Aid of a Computer	W. L. Black H. C. Howland B. Howland	21 June 1971	AD-726095
1971-34	Clutter Returns from Vegetated Areas	S. Rosenbaum L. W. Bowles	10 Sept. 1971	
1971-35	Combinatorial Ordering and the Geometric Embedding of Graphs	L. F. Mondschein	5 Aug. 1971	AD-730602
1971-39	Response of Structural Systems to Nonstationary Random Excitation	D. C. Hyland	7 Sept. 1971	AD-731159



## JOURNAL ARTICLES

<u>JA No.</u>			
171	Simulation of Self-Organizing Systems by Digital Computer	B. G. Farley W. A. Clark	Trans. IRE, PGIT <u>IT-4</u> , 76 (1954)
2114	Radar	J. Freedman	Chap. 14 in <u>System Engineering Handbook</u> , R. E. Machal, editor (McGraw-Hill, New York, 1965)
2196	A Conservation Law for a Wide Class of Queueing Disciplines	L. Kleinrock	Naval Res. Log. Quart. <u>12</u> , 181 (1965), DDC AD-631082
2263	Quantum Oscillations of the Ultrasonic Absorption in Lead Telluride	Y. Shapira B. Lax	Physics Letters <u>7</u> , 133 (1963)
2289	Transition Correlations for Hypersonic Wakes	S. L. Zeiberg	AIAA J. <u>2</u> , 564 (1964)
2340-1	Radar Measurements of Target Scattering Properties	P. E. Green, Jr.	Chap. 1 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-2	Radio Wave Propagation through the Earth's Neutral Atmosphere and Ionosphere	T. F. Rogers J. V. Evans	Chap. 2 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-3	Spin and Orbital Motions of Planets	I. I. Shapiro	Chap. 3 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-4	Relations Between Rough Surfaces and Their Scattering Properties as Applied to Radar Astronomy	T. Hagfors	Chap. 4 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-5	Radar Studies of the Moon	T. Hagfors J. V. Evans	Chap. 5 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-6	Radar Studies of the Planets	G. H. Pettengill	Chap. 6 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-7	Radar Astronomy Systems: Equipment	J. V. Evans J. Ruze H. G. Weiss R. H. Kingston C. Blake	Chap. 8 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-8	Modulation, Demodulation, and Data Processing Applied to Radar Astronomy	J. V. Evans	Chap. 9 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2425	On the Schwartz Inequality	M. J. Levin	Proc. IEEE (Correspondence) <u>53</u> , 107 (1965), DDC AD-615350

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2482	X-Band Modulation of GaAs Lasers	B. S. Goldstein R. M. Weigand	Proc. IEEE (Correspondence) <u>53</u> , 195 (1965), DDC AD-614870
2548B	Concluding Remarks on Ionospheric F-Region Temperatures	J. V. Evans	<u>Electron Density Profiles in Ionosphere and Exosphere</u> (North-Holland, Amsterdam, 1966), DDC AD-640996
2548C	Ionospheric Backscatter Observations at Millstone Hill	J. V. Evans	<u>Electron Density Profiles in Ionosphere and Exosphere</u> (North-Holland, Amsterdam, 1966), DDC AD-640997
2591	Properties of InAs Lasers	I. Melngailis R. H. Rediker	J. Appl. Phys. <u>37</u> , 899 (1966), DDC AD-642173
2736	The Augmented Plane Wave Method and the Electronic Properties of Rare-Earth Metals	A. J. Freeman J. O. Dimmock R. E. Watson	<u>Quantum Theory of Atoms, Molecules, and the Solid State</u> (Academic Press, New York, 1966)
2872	First-Order Localized Electron $\leftrightarrow$ Collective-Electron Transition in LaCoO <sub>3</sub>	P. M. Raccach J. B. Goodenough	Phys. Rev. <u>155</u> , 932 (1967), DDC AD-658906
2908A	Lincoln Experimental Satellite Program (LES-1, -2, -3, -4)	H. Sherman D. C. MacLellan R. M. Lerner P. Waldron	J. Spacecraft <u>4</u> , 1448 (1967), DDC AD-663685
2916	Heat Flow in High-Temperature Crystal Growth	T. B. Reed	<u>Crystal Growth</u> (Pergamon, New York, 1967)
2922A	A Theoretical Analysis and Experimental Confirmation of the Optimally Loaded and Overdriven RF Power Amplifier	D. M. Snider	IEEE Trans. Electron Devices <u>ED-14</u> , 851 (1967), DDC AD-670765
2937	Sulfur Donor Level Associated with (100) Conduction Band of GaSb	B. B. Kosicki W. Paul A. J. Strauss G. W. Iseler	Phys. Rev. Letters <u>17</u> , 1175 (1966)
2941	Retrograde Solubility of Lead in n-Type PbS	A. J. Strauss	Trans. Met. Soc. AIME <u>239</u> , 794 (1967), DDC AD-661148
2949	The Overdriven Varactor Upper Sideband Upconverter	A. I. Grayzel	IEEE Trans. Microwave Theory Tech. <u>MTT-15</u> , 561 (1967)
2965	Identification of the Fundamental Vibrational Modes of Trigonal, $\alpha$ -Monoclinic and Amorphous Selenium	G. Lucovsky A. Mooradian W. Taylor G. B. Wright R. C. Keezer	Solid State Commun. <u>5</u> , 113 (1967), DDC AD-698574

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| 2977 | Interband Magnetoreflexion and Band Structure of HgTe  | S. H. Groves<br>R. N. Brown<br>C. R. Pidgeon   | Phys. Rev. <u>161</u> , 779 (1967),<br>DDC AD-663308  |
| 2989 | A Thermodynamic Investigation of the Compounds $\text{In}_3\text{SbTe}_2$ , InSb, and InTe               | A. K. Jena<br>M. B. Bever<br>M. D. Banus       | Trans. Met. Soc. AIME <u>239</u> , 1232 (1967), DDC AD-701240                                 |
| 3000 | Phasers and Time Delay Elements  | W. J. Ince<br>D. H. Temme                      | <u>Advances in Microwaves</u> , Vol. 4, L. Young, editor (Academic Press, New York, 1969)     |
| 3002 | Redistribution of Electrons in Secondary Emission Devices  | A. A. Braga-Illa                               | Alta Frequenza <u>36</u> , 464 (1967),<br>DDC AD-698575                                       |
| 3010 | What is the Fast Fourier Transform?  | C. M. Rader,<br><u>et al.</u>                  | IEEE Trans. Audio Electroacoust. <u>AU-15</u> , 45 (1967); Proc. IEEE <u>55</u> , 1664 (1967) |
| 3012 | A General Model of a Single-Channel Queue: Discrete and Continuous Time Cases                            | J. U. Beusch                                   | Operations Res. <u>15</u> , 1131 (1967)   |
| 3013 | Iterative Sequential Decoding  | I. G. Stiglitz                                 | IEEE Trans. Inform. Theory <u>IT-15</u> , 715 (1969), DDC AD-703488                           |
| 3076 | Spark-Source Mass Spectrometry   | E. B. Owens                                    | <u>McGraw-Hill Yearbook of Science and Technology</u> (1968)                                  |
| 3083 | Changes in the Work Function of Aluminum During and Following Low Pressure Oxidation at Room Temperature | E. E. Huber, Jr.<br>C. T. Kirk, Jr.            | Surface Sci. <u>8</u> , 458 (1967),<br>DDC AD-698576  |
| 3094 | Beam Steering Increments for a Phased Array  | J. Frank<br>J. Ruze                            | IEEE Trans. Antennas Propag. <u>AP-15</u> , 820 (1967)  |
| 3101 | The Combined Use of Digital Computers and Coherent Optics in Image Processing                            | T. S. Huang<br>H. L. Kasnitz                   | Proc. Computerized Imaging Techniques Seminar, Washington, D. C., June 1967                   |
| 3154 | Magnetic Ordering and the Electronic Properties of the Heavy Rare-Earth Metals                           | R. E. Watson<br>A. J. Freeman<br>J. O. Dimmock | Phys. Rev. <u>167</u> , 497 (1968),<br>DDC AD-697226  |
| 3157 | Mutual Coupling in Infinite Planar Arrays of Rectangular Waveguide Horns                                 | G. F. Farrell<br>D. H. Kuhn                    | IEEE Trans. Antennas Propag. <u>AP-16</u> , 405 (1968)  |
| 3158 | Automatic Satellite Station-Keeping  | A. A. Braga-Illa                               | J. Spacecraft <u>6</u> , 430 (1969),<br>DDC AD-696238   |
| 3171 | Adaptive Equalizer for Pulse Transmission  | C. W. Niessen<br>D. K. Willim                  | IEEE Trans. Commun. Tech. <u>COM-18</u> , 377 (1970),<br>DDC AD-714737                        |

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|-------|---|---|---|
| 3173A | Statistical Thermodynamics of Nonstoichiometry in Non-metallic Binary Compounds       | R. F. Brebrick  | J. Solid State Chem. <u>1</u> , 88 (1969), DDC AD-694904  |
| 3174  | Quartz Laser Operates Via Stimulated Raman Scattering                                 | P. E. Tannenwald<br>F. H. Perry                         | Laser Focus <u>3</u> , 23 (1967)  |
| 3182  | Microseisms: Mode Structure and Sources   | M. N. Toksöz<br>R. T. Lacoss                            | Science <u>159</u> , 872 (1968), DDC AD-698577  |
| 3183  | Radar Astronomy   | G. H. Pettengill  | Chap. 33 in <u>Radar Handbook</u> (McGraw-Hill, New York, 1970)                                     |
| 3193  | Long-Period Signal Processing Results for the Large Aperture Seismic Array            | J. Capon<br>R. J. Greenfield<br>R. T. Lacoss            | Geophysics <u>34</u> , 305 (1969), DDC AD-694326  |
| 3194  | Ferromagnetic Properties of Films   | M. S. Cohen   | Chap. 17 in <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York, 1970)                   |
| 3204  | Radar Studies of the Moon   | J. V. Evans<br>T. Hagfors                               | <u>Advances in Astronomy and Astrophysics</u> , Vol. 8 (Academic Press, New York, 1971), pp. 29-105 |
| 3205  | Orbit Determination from the Satellite  | A. A. Braga-Illa  | J. Spacecraft <u>6</u> , 232 (1969), DDC AD-699266  |
| 3228  | Isotope Shift and Hyperfine Structure of the Neutron-Deficient Thallium Isotopes      | D. Goorvitch<br>S. P. Davis<br>H. Kleiman               | Phys. Rev. <u>188</u> , 1897 (1969), DDC AD-707570  |
| 3233  | The Feasibility of Locating Waveguide Arcs by Sound Ranging                           | A. Browne   | IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 894 (1968), DDC AD-698578                        |
| 3238  | Magnetic Devices  | J. I. Raffel  | Chap. 21 in <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York, 1970)                   |
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| 3281  | Crystallographic and Magnetic Properties of Perovskite and Perovskite-Related Compounds                       | J. B. Goodenough<br>J. M. Longo  | <u>Landolt-Bornstein Tables</u> , Group III, Part A (Springer-Verlag, Berlin, 1970), p. 126       |
| 3282A | Signal Processing by the Bat <u>Myotis lucifugus</u>  | J. J. G. McCue   | J. Auditory Res. <u>9</u> , 100 (1969), DDC AD-704619   |
| 3285  | Excitation of a Grounded Dielectric Slab by a Horizontal Dipole   | G. N. Tsandoulas   | IEEE Trans. Antennas Propag. <u>AP-17</u> , 156 (1969), DDC AD-693898                             |
| 3289  | Determination of Magnetic Anisotropy and Porosity from the Approach to Saturation of Polycrystalline Ferrites | G. F. Dionne   | J. Appl. Phys. <u>40</u> , 1839 (1969), DDC AD-694193   |
| 3295  | Low-Level Coherent and Incoherent Detection in the Infrared   | R. J. Keyes<br>T. M. Quist   | Chap. 8 in <u>Semiconductors and Semimetals</u> , Vol. 5 (Academic Press, New York, 1970), p. 321 |
| 3298  | Space-Filling Curves: Their Generation and Their Application to Bandwidth Reduction                           | T. Bially  | IEEE Trans. Inform. Theory <u>IT-15</u> , 658 (1969), DDC AD-703413                               |
| 3301  | Effective-Mass Theory for Polarons in External Fields   | D. M. Larsen   | Phys. Rev. <u>180</u> , 919 (1969), DDC AD-694896   |
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| 3351  | Magnetic-Anisotropy and Magnetostriction Constants of Substituted Lithium Ferrites at 300°K                   | G. F. Dionne   | J. Appl. Phys. <u>40</u> , 4486 (1969), DDC AD-703756   |
| 3358  | Boltzmann-Equation Study of Hot-Electron Relaxation in Metals   | R. W. Davies   | Phys. Rev. <u>181</u> , 1118 (1969), DDC AD-692904  |
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| 3367 | Tropical Air Density Below 80 km from Hypersonic Sphere Measurements                                   | J. E. Salah  | J. Appl. Meteorol. <u>8</u> , 711 (1969),<br>DDC AD-699262                   |
| 3368 | Hypersonic Sphere Drag from Radar Measurements   | J. E. Salah  | AIAA J. <u>7</u> , 1361 (1969),<br>DDC AD-699460                             |
| 3369 | Inversion-Asymmetry and Warping-Induced Interband Magneto-Optical Transitions in InSb                  | C. R. Pidgeon<br>S. H. Groves                            | Phys. Rev. <u>186</u> , 824 (1969),<br>DDC AD-707249                         |
| 3376 | A Radio Study of the H II Region Orion B   | M. A. Gordon   | Astrophys. J. <u>158</u> , 479 (1969),<br>DDC AD-699263                      |
| 3378 | Radar Studies of Planetary Surfaces  | J. V. Evans  | Ann. Rev. Astron. Astrophys. <u>7</u> ,<br>201 (1969)                        |
| 3380 | Partial Pressures of Zn and Te <sub>2</sub> over ZnTe up to 917 °C                                     | R. F. Brebriek   | J. Electrochem. Soc. <u>116</u> , 1274<br>(1969), DDC AD-696239              |
| 3383 | Comparison of the Independent Grain and Dipole Narrowing Theories of Ferrimagnetic Resonance Linewidth | G. F. Dionne   | J. Appl. Phys. <u>40</u> , 3061 (1969),<br>DDC AD-695753                     |
| 3386 | Transient and Steady State Thermal Self-Focusing   | R. L. Carman<br>A. Mooradian<br>P. L. Kelley<br>A. Tufts | Appl. Phys. Letters <u>14</u> , 136 (1969),<br>DDC AD-714469                 |
| 3388 | A Bound on the Output of a Circular Convolution with Application to Digital Filtering                  | A. V. Oppenheim<br>C. Weinstein                          | IEEE Trans. Audio Electroacoust.<br><u>AU-17</u> , 120 (1969), DDC AD-696240 |
| 3389 | Gain Saturation and Diffusion in CO <sub>2</sub> Lasers  | C. P. Christensen<br>C. Freed<br>H. A. Haus              | IEEE J. Quantum Electron. <u>QE-5</u> ,<br>276 (1969), DDC AD-693669         |
| 3391 | High Power Varactor Package for Multichip Application  | D. D. Tang   | Proc. IEEE (Letters) <u>57</u> , 799<br>(1969), DDC AD-693895                |
| 3392 | High-Resolution Frequency-Wavenumber Spectrum Analysis   | J. Capon   | Proc. IEEE <u>57</u> , 1408 (1969),<br>DDC AD-696880                         |
| 3394 | Far Infrared and Submillimeter Impact Ionization Modulator   | I. Melngailis<br>P. E. Tannenwald                        | Proc. IEEE (Letters) <u>57</u> , 806<br>(1969), DDC AD-693896                |
| 3395 | Interpretation of Radar and Radio Observations of Venus  | M. A. Slade<br>I. I. Shapiro                             | J. Geophys. Res. <u>75</u> , 3301 (1970),<br>DDC AD-714320                   |



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3399	A Deployable Cross LPD Array on a Conducting Cone	P-R. Wu	IEEE Trans. Antennas Propag. <u>AP-17</u> , 428 (1969), DDC AD-696882
3400	Magnetoreflection Studies in Arsenic	M. Maltz M. S. Dresselhaus	Phys. Rev. <u>182</u> , 741 (1969), DDC AD-696242
3401	VHF Antenna Systems for Spin-Stabilized Satellites	M. L. Rosenthal M. E. Devane B. F. LaPage	IEEE Trans. Antennas Propag. <u>AP-17</u> , 443 (1969), DDC AD-696883
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3406	Method for Fabricating High Frequency Surface Wave Transducers	H. I. Smith	Rev. Sci. Instr. <u>40</u> , 729 (1969), DDC AD-693812
3412A	Experimental Comparison of Hartree-Fock and Slater Exchange Potentials in Aluminum from the Charge Density Point of View	P. M. Raccah V. E. Henrich	Intl. J. Quantum Chem. <u>3S</u> , Pt. 2, 797 (1970), DDC AD-706145
3417	Space-Time Symmetry Restrictions on Transport Coefficients. III. Thermogalvanomagnetic Coefficients	W. H. Kleiner	Phys. Rev. <u>182</u> , 705 (1969), DDC AD-695895
3418	Domain Wall Profiles in Magnetic Films	M. S. Cohen K. J. Harte	J. Appl. Phys. <u>40</u> , 3597 (1969), DDC AD-699461
3419	Radar Observations of Icarus	G. H. Pettengill I. I. Shapiro M. E. Ash R. P. Ingalls L. P. Rainville W. B. Smith M. L. Stone	Icarus <u>10</u> , 432 (1969), DDC AD-699267
3420	Negative-Magnetoresistance Effects in $Ti_2O_3$	J. M. Honig L. L. Van Zandt T. B. Reed J. Sohn	Phys. Rev. <u>182</u> , 863 (1969), DDC AD-696245

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| 3423  | Brillouin Scattering Study of Acoustic Attenuation in Fused Quartz  | A. S. Pinc  | Phys. Rev. <u>185</u> , 1187 (1969), DDC AD-703759                           |
| 3426  | GaAs Schottky Barrier Avalanche Photodiodes   | W. T. Lindley<br>R. J. Phelan, Jr.<br>C. M. Wolfe<br>A. G. Foyt               | Appl. Phys. Letters <u>14</u> , 197 (1969), DDC AD-694323                    |
| 3427  | Homodyne Detection of Infrared Radiation from a Moving Diffuse Target   | M. C. Teich   | Proc. IEEE <u>57</u> , 786 (1969), DDC AD-693905                             |
| 3428  | A Comparison of Roundoff Noise in Floating Point and Fixed Point Digital Filter Realizations                                  | C. Weinstein<br>A. V. Oppenheim   | Proc. IEEE (Letters) <u>57</u> , 1181 (1969), DDC AD-693897                  |
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| 3430  | Low-Frequency Diffraction by Moving Conducting Strips   | G. N. Tsandoulas  | J. Opt. Soc. Am. <u>59</u> , 1357 (1969), DDC AD-699268                      |
| 3431  | Some Problems in the Theory of Guided Microsonic Waves  | R. A. Waldron   | IEEE Trans. Microwave Theory Tech. <u>MTT-17</u> , 893 (1969), DDC AD-704460 |
| 3435  | Sequential Decoding of Systematic and Nonsystematic Convolutional Codes with Arbitrary Decoder Bias                           | E. A. Bucher  | IEEE Trans. Inform. Theory <u>IT-16</u> , 611 (1970)                         |
| 3437  | The Effect of Pressure and B-Cation Size on the Crystal Structure of CsBF <sub>3</sub> Compounds (B = Mn, Fe, Co, Ni, Zn, Mg) | J. M. Longo<br>J. A. Kafalas  | J. Solid State Chem. <u>1</u> , 103 (1969), DDC AD-693900                    |
| 3440  | Search for an Effect of the Sun on the Frequency of 18-Centimeter Radiation   | J. A. Ball<br>D. F. Dickinson<br>A. E. Lilley<br>H. Penfield<br>I. I. Shapiro | Science <u>167</u> , 1755 (1970)   |
| 3442  | Effects of Light on the Charge State of InSb-MOS Devices  | W. E. Krag<br>R. J. Phelan, Jr.<br>J. O. Dimmock                              | J. Appl. Phys. <u>40</u> , 3661 (1969), DDC AD-699462                        |
| 3444  | Derivation of a Quasiparticle Transport Equation for an Impure Fermi Liquid at Low Temperatures                               | J. L. Sigel   | Phys. Rev. <u>186</u> , 182 (1969), DDC AD-703491                            |
| 3446  | Envelope Fluctuations in the Output of a Bandpass Limiter   | J. Max  | IEEE Trans. Commun. Tech. <u>COM-18</u> , 597 (1970), DDC AD-722937          |

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| 3447  | Polymorphism in Selenospinel -<br>A High Pressure Phase of<br>$\text{CdCr}_2\text{Se}_4$                            | M. D. Banus<br>M. C. Lavine  | J. Solid State Chem. <u>1</u> , 109 (1969),<br>DDC AD-693901   |
| 3448  | Roundoff Noise in Floating<br>Point Fast Fourier Transform<br>Computation   | C. J. Weinstein  | IEEE Trans. Audio Electroacoust.<br><u>AU-17</u> , 209 (1969), DDC AD-703354                                   |
| 3449  | Magnetoemission Experiments<br>in $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$   | J. F. Butler   | Solid State Commun. <u>7</u> , 909 (1969),<br>DDC AD-708599  |
| 3453  | A Comparison of Three Non-<br>Linear Filters  | R. P. Wishner<br>J. A. Tabaczynski<br>M. Athans  | Automatica <u>5</u> , 487 (1969),<br>DDC AD-699427   |
| 3456  | Equivalence of the Rayleigh<br>Solution and the Extended-<br>Boundary-Condition Solution<br>for Scattering Problems | M. L. Burrows  | Electron. Letters <u>5</u> , 277 (1969),<br>DDC AD-699269  |
| 3460  | Metallic Oxides   | J. B. Goodenough   | Chap. 4 in <u>Progress in Solid State<br/>Chemistry</u> , Vol. 5, H. Reiss,<br>editor (Pergamon, Oxford, 1971) |
| 3462  | Optimum Radar Signal-Filter<br>Pairs in a Cluttered<br>Environment  | D. F. DeLong, Jr.<br>E. M. Hofstetter  | IEEE Trans. Inform: Theory <u>IT-16</u> ,<br>89 (1970), DDC AD-704622  |
| 3465  | Interstellar Hydroxyl Clouds  | J. M. Moran, Jr.   | Science J. <u>5A</u> , 60 (1969),<br>DDC AD-699463   |
| 3467  | Absolute Experimental X-Ray<br>Form Factor of Aluminum  | P. M. Raccach<br>V. E. Henrich   | Phys. Rev. <u>184</u> , 607 (1969),<br>DDC AD-699467   |
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| 3469A | Parameters of Microstrip  | J. A. Weiss<br>T. G. Bryant  | Electron. Letters <u>5</u> , 517 (1969),<br>DDC AD-703489  |
| 3470  | Spin-Polarized Splittings in the<br>Temperature-Dependent Reflec-<br>tance of EuO                                   | J. Feinleib<br>W. J. Scouler<br>J. O. Dimmock<br>J. Hanus<br>T. B. Reed<br>C. R. Pidgeon | Phys. Rev. Letters <u>22</u> , 1385 (1969),<br>DDC AD-693899   |
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| 3473  | Error Probability Bounds for<br>Systematic Convolutional Codes  | E. A. Bucher<br>J. A. Heller   | IEEE Trans. Inform. Theory <u>IT-16</u> ,<br>219 (1970)  |
| 3475  | Efficient Doping of GaAs by<br>$\text{Se}^+$ Ion Implantation   | A. G. Foyt<br>J. P. Donnelly<br>W. T. Lindley  | Appl. Phys. Letters <u>14</u> , 372 (1969),<br>DDC AD-699465   |

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| 3485 | Velocity and Attenuation of Hypersonic Waves in Liquid Nitrogen   | A. S. Pine   | J. Chem. Phys. <u>51</u> , 5171 (1969),<br>DDC AD-704624                 |
| 3486 | A Beam-Lead Substrate Package for a Six-Stage TTL Shift Register  | F. Bachner<br>R. A. Cohen<br>R. Mountain<br>R. E. McMahon  | Microelectronics and Reliability <u>8</u> ,<br>307 (1969), DDC AD-704422 |
| 3489 | Venus: Mapping the Surface Reflectivity by Radar Interferometry   | A. E. E. Rogers<br>R. P. Ingalls   | Science <u>165</u> , 797 (1969),<br>DDC AD-696246                        |
| 3490 | Hydroxyl and Water Masers in Protostars   | M. M. Litvak   | Science <u>165</u> , 855 (1969),<br>DDC AD-696247                        |
| 3491 | Perturbation of the Refractive Index of Absorbing Media by a Pulsed Laser Beam  | P. R. Longaker<br>M. M. Litvak   | J. Appl. Phys. <u>40</u> , 4033 (1969),<br>DDC AD-699270                 |
| 3492 | A State-Space Bandwidth Constraint for Problems in Waveform Design  | R. J. McAulay  | IEEE Trans. Inform. Theory <u>IT-16</u> ,<br>83 (1970), DDC AD-704625    |
| 3493 | Water Vapor: Observations of Galactic Sources   | M. L. Meeks<br>J. C. Carter<br>A. H. Barrett<br>P. R. Schwartz<br>J. W. Waters<br>W. E. Brown, III | Science <u>165</u> , 180 (1969),<br>DDC AD-694188                        |
| 3495 | Mode Spectrum of a Microsound Waveguide Consisting of an Isotropic Rectangular Overlay on a Perfectly Rigid Substrate | R. A. Waldron  | IEEE Trans. Sonics Ultrason.<br><u>SU-18</u> , 8 (1971), DDC AD-720639   |
| 3496 | Barankin Bounds on Parameter Estimation   | R. J. McAulay<br>E. M. Hofstetter  | IEEE Trans. Inform. Theory <u>IT-17</u> ,<br>669 (1971)                  |
| 3498 | Polarons Bound in a Coulomb Potential. I. Ground State  | D. M. Larsen   | Phys. Rev. <u>187</u> , 1147 (1969),<br>DDC AD-707818                    |
| 3499 | Infrared Cyclotron Resonance and Related Experiments in the Conduction Band of InSb                                   | E. J. Johnson<br>D. H. Dickey  | Phys. Rev. B <u>1</u> , 2676 (1970),<br>DDC AD-710445                    |
| 3500 | Absolute Specular Reflectance Measurements of Highly Reflecting Optical Coatings at $10.6\mu$                         | D. Kelsall   | Appl. Opt. <u>9</u> , 85 (1970),<br>DDC AD-707577                        |

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3501	Evidence for a Native Donor in ZnSe from High Temperature Electrical Measurements	F. T. J. Smith	Solid State Commun. <u>7</u> , 1757 (1969), DDC AD-722912
3502	Seasonal Variation of the F <sub>1</sub> -Region Ion Composition	J. V. Evans L. P. Cox	J. Geophys. Res. <u>75</u> , 159 (1970), DDC AD-703492
3503A	Millimetre Wave Emission by Interstellar Dust	M. M. Litvak	Nature <u>223</u> , 1143 (1969), DDC AD-699264
3504	An Interdigital-Line Radiator	P. R. Wu	IEEE Trans. Antennas Propag. <u>AP-17</u> , 796 (1969)
3507	Magnetic Field Dependence of Laser Emission in Pb <sub>1-x</sub> Sn <sub>x</sub> Se Diodes	A. R. Calawa J. O. Dimmock T. C. Harman I. Melngailis	Phys. Rev. Letters <u>23</u> , 7 (1969), DDC AD-694137
3511	Fast Fourier Transform of Externally Stored Data	N. M. Brenner	IEEE Trans. Audio Electroacoust. <u>AU-17</u> , 128 (1969), DDC AD-696248
3512	Magnetic Anisotropy and Magnetostriction Constants of MgMn Ferrites at 300°K	G. F. Dionne	J. Appl. Phys. <u>41</u> , 831 (1970), DDC AD-707583
3517	Resonant Raman Scattering from LO Phonons in Polar Semiconductors	D. C. Hamilton	Phys. Rev. <u>188</u> , 1221 (1969), DDC AD-707571
3519	Detection of Conjugate Photoelectrons at Millstone Hill	J. V. Evans I. J. Gastman	J. Geophys. Res. <u>75</u> , 807 (1970), DDC AD-704626
3520	An On-Line Data Recording System	W. Krag N. Daggett R. N. Davis F. Perkins	Rev. Sci. Instr. <u>40</u> , 1606 (1969), DDC AD-703490
3521	Ionized Impurity Density in n-Type GaAs	C. M. Wolfe G. E. Stillman J. O. Dimmock	J. Appl. Phys. <u>41</u> , 504 (1970), DDC AD-707572
3523	Comment on "Chemistry of Electrons in Pure-Air Hypersonic Wakes"	P. W. Langhoff	AIAA J. <u>8</u> , 382 (1970), DDC AD-714738
3524	Inelastic Light Scattering from Semiconductor Plasmas in a Magnetic Field	F. A. Blum	Phys. Rev. B <u>1</u> , 1125 (1970), DDC AD-708590
3525	Magnetic Ordering Effects in the Ultra-violet Reflectance of EuS and EuSe	W. J. Scouler J. Feinleib J. O. Dimmock C. R. Pidgeon	Solid State Commun. <u>7</u> , 1685 (1969)
3526	Transmission of Step Functions by Loop Antennas	A. R. Dion	IEEE Trans. Antennas Propag. <u>AP-18</u> , 389 (1970), DDC AD-714310



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| 3530 | Ferrimagnetic Resonance Measurement of the $\lambda_{111}$ Magnetostriction Constant with the Magnetic Field Along a $\langle 111 \rangle$ Axis                            | G. F. Dionne   | J. Appl. Phys. <u>41</u> , 2264 (1970),<br>DDC AD-710464   |
| 3531 | The Role of Solid State in Phased-Array Radars   | H. T. MacFarland<br>C. Blake   | Microwave J. <u>12</u> , 63 (1969)   |
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| 3537 | A Digital Channel Vocoder  | T. Bially<br>W. M. Anderson  | IEEE Trans. Commun. Tech. <u>COM-18</u> , 435 (1970),<br>DDC AD-714743   |
| 3538 | The Calculation of Electronic Energy Bands by the Augmented Plane Wave Method  | J. O. Dimmock  | <u>Solid State Physics</u> , Vol. 26,<br>F. Seitz and D. Turnbull, editors<br>(Academic Press, New York, 1971), p. 103 |
| 3539 | Positron Annihilation in Copper – Comparisons of Different Results   | J. Melngailis  | Phys. Rev. B <u>2</u> , 563 (1970),<br>DDC AD-714448   |
| 3541 | Magnetic Ordering Effects on the Reflectivity of EuS and EuSe  | C. R. Pidgeon<br>J. Feinleib<br>W. J. Scouler<br>J. Hanus<br>J. O. Dimmock<br>T. B. Reed | Solid State Commun. <u>7</u> , 1323 (1969)   |
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| 3543 | Realization of Digital Filters Using Block-Floating-Point Arithmetic   | A. V. Oppenheim  | IEEE Trans. Audio Electroacoust. <u>AU-18</u> , 130 (1970), DDC AD-714052  |
| 3544 | Example of the Generalised-Function Validity of the Rayleigh Hypothesis  | M. L. Burrows  | Electron. Letters <u>5</u> , 694 (1969),<br>DDC AD-707574  |
| 3545 | Cadmium Rhenium(V) Oxide, $\text{Cd}_2\text{Re}_2\text{O}_7$   | J. M. Longo<br>P. C. Donohue<br>D. A. Batson   | Accepted Inorg. Synth.   |
| 3546 | Transport Equation for a Fermi System in Random Scattering Centers. II. Independent Electrons in an Arbitrarily Varying Electric Field and Strong Single-Center Potentials | J. L. Sigcl<br>P. N. Argyres   | Phys. Rev. B <u>1</u> , 1845 (1970),<br>DDC AD-709758  |



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3547	Polaron Cyclotron Resonance in CdTe	J. Waldman D. M. Larsen P. E. Tannenwald C. C. Bradley D. R. Cohn B. Lax	Phys. Rev. Letters <u>23</u> , 1033 (1969), DDC AD-704529
3548	A Conceptual Phase Diagram for Outer Electrons in Solids	J. B. Goodenough	Accepted <u>Current Topics in Magnetism</u> (Gordon & Breach, New York)
3549	Analysis and Evaluation of a Method of Measuring the Complex Permittivity and Permeability of Microwave Insulators	W. E. Courtney	IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 476 (1970), DDC AD-714470
3551	Niobium Monoxide $3 \text{ Nb} + \text{Nb}_2\text{O}_5 \rightarrow 5 \text{ NbO}$	T. B. Reed E. R. Pollard L. E. Lonney R. E. Loehman J. M. Honig	Accepted Inorg. Synth.
3552	Resistivity, Magnetoresistance, and Hall Effect Studies in $\text{VO}_x$ ( $0.82 \leq x \leq 1.0$ )	J. M. Honig W. E. Wahnsiedler M. D. Banus T. B. Reed	J. Solid State Chem. <u>2</u> , 74 (1970), DDC AD-716064
3553	MIS Electroluminescent Diodes in ZnTe	J. P. Donnelly A. G. Foyt W. T. Lindley G. W. Iseler	Solid-State Electron. <u>13</u> , 755 (1970), DDC AD-714318
3556	Design of Surface Wave Delay Lines with Interdigital Transducers	W. R. Smith H. M. Gerard J. H. Collins T. M. Reeder H. J. Shaw	IEEE Trans. Microwave Theory Tech. <u>MTT-17</u> , 865 (1969)
3557	Hall Coefficient Factor for Polar Mode Scattering in n-Type GaAs	G. E. Stillman C. M. Wolfe J. O. Dimmock	J. Phys. Chem. Solids <u>31</u> , 1199 (1970), DDC AD-714321
3558	Intensities of Spin-Wave Resonance Modes in Thin Films	R. Weber P. E. Tannenwald C. H. Bajorek	Appl. Phys. Letters <u>16</u> , 35 (1970), DDC AD-707568
3560	Determination of F-Region Vertical Drifts at Millstone Hill	J. V. Evans R. A. Brockelman R. F. Julian W. A. Reid L. A. Carpenter	Radio Sci. <u>5</u> , 27 (1970), DDC AD-704531
3562	Microsound Components, Circuits, and Applications	E. Stern	IEEE Trans. Microwave Theory Tech. <u>MTT-17</u> , 835 (1969), DDC AD-704632

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| 3563 | Interdiffusion in Lead Selenide  | R. W. Brodersen<br>J. N. Walpole<br>A. R. Calawa                | J. Appl. Phys. <u>41</u> , 1484 (1970),<br>DDC AD-710449               |
| 3564 | Hard X-Rays from the Crab Pulsar   | F. W. Floyd<br>I. S. Glass<br>H. W. Schnopper                   | Nature <u>224</u> , 50 (1969)  |
| 3565 | Design of Radar Signals and Receivers Subject to Implementation Errors                 | D. F. DeLong  | IEEE Trans. Inform. Theory<br><u>IT-16</u> , 707 (1970), DDC AD-716071 |
| 3571 | Apparatus for the Accurate Determination of Flange Focal Distance                      | B. Howland<br>A. F. Proll                                       | Appl. Opt. <u>9</u> , 1247 (1970),<br>DDC AD-716072                    |
| 3574 | Traffic Control in Space   | A. A. Braga-Illa  | Nature <u>226</u> , 503 (1970),<br>DDC AD-714051                       |
| 3575 | S Velocities at Near Distances in Western Central California                           | J. Filson   | Bull. Seismol. Soc. Am. <u>60</u> , 901<br>(1970), DDC AD-710446       |
| 3577 | Reinterpretation of $^4A_2 \rightarrow ^2E$ Exciton Spectra in $YCrO_3$                | J. W. Allen   | Solid State Commun. <u>8</u> , 53 (1970),<br>DDC AD-707566             |
| 3578 | Search for $^{18}OH$ in Emission   | J. A. Ball<br>H. Penfield                                       | Astrophys. J. <u>160</u> , 349 (1970)                                  |
| 3579 | Photoluminescence Due to Isoelectronic Oxygen and Tellurium Traps in II-VI Alloys      | G. W. Isler<br>A. J. Strauss                                    | J. Luminescence <u>3</u> , 1 (1970),<br>DDC AD-710448                  |
| 3580 | Electrically Active Point Defects in Cadmium Telluride                                 | F. T. J. Smith  | Met. Trans. <u>1</u> , 617 (1970),<br>DDC AD-707569                    |
| 3581 | Power Flow and Energy Storage in Piezoelectric Semiconductor Devices                   | H. Berger<br>R. I. Harrison<br>S. P. Denker                     | IEEE Trans. Microwave Theory<br>Tech. <u>MTT-18</u> , 105 (1970)       |
| 3582 | Interpretation of $M_xV_2O_5-\beta$ and $M_xV_2-yTyO_5-\beta$ Phases                   | J. B. Goodenough  | J. Solid State Chem. <u>1</u> , 349 (1970)                             |
| 3583 | Far-Infrared Recombination Radiation from Impact-Ionized Shallow Donors in GaAs        | I. Melngailis<br>G. E. Stillman<br>J. O. Dimmock<br>C. M. Wolfe | Phys. Rev. Letters <u>23</u> , 1111 (1969),<br>DDC AD-704633           |
| 3585 | Residual Impurities in High-Purity Epitaxial GaAs                                      | C. M. Wolfe<br>G. E. Stillman<br>E. B. Owens                    | J. Electrochem. Soc. <u>117</u> , 129<br>(1970), DDC AD-703487         |
| 3586 | Optical Observation of Magnetic-Field-Induced Spin Alignment in Antiferromagnetic EuTe | J. Feinleib<br>C. R. Pidgeon                                    | Phys. Rev. Letters <u>23</u> , 1391 (1969),<br>DDC AD-704634           |

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3587	Split-Off Valence Band Parameters for GaAs from Stress-Modulated Magnetorelectivity	M. Reine R. L. Aggarwal B. Lax C. M. Wolfe	Phys. Rev. B <u>2</u> , 458 (1970)
3589	Natural Mode of Oscillation in a p-n Avalanche Diode	D. Parker A. I. Grayzel	Proc. IEEE (Letters) <u>58</u> , 266 (1970)
3590	Thermodynamics and Calculation of the Liquidus-Solidus Gap in Homogeneous, Monotonic Alloy Systems	J. Steininger	J. Appl. Phys. <u>41</u> , 2713 (1970), DDC AD-714312
3591	Comparison of Theoretical and Experimental Charge Densities for C, Si, Ge, and ZnSe	P. M. Raccah R. N. Euwema D. J. Stukel T. C. Collins	Phys. Rev. B <u>1</u> , 756 (1970)
3592	Structure and Magnetic Properties of VOSO <sub>4</sub>	J. M. Longo R. J. Arnott	J. Solid State Chem. <u>1</u> , 394 (1970), DDC AD-710461
3595	OH Radio Emission Associated with Infrared Stars	W. J. Wilson A. H. Barrett J. M. Moran	Astrophys. J. <u>160</u> , 545 (1970), DDC AD-710451
3596	Application of Detection and Estimation Theory to Large Array Seismology	J. Capon	Proc. IEEE <u>58</u> , 760 (1970), DDC AD-714323
3597	The Hubbard Model: Insulator or Conductor for Narrow Band Regime?	R. A. Bari R. V. Lange	Phys. Letters <u>30A</u> , 418 (1969)
3599	Surface-Height Variations on Venus and Mercury	W. B. Smith R. P. Ingalls I. I. Shapiro M. E. Ash	Radio Sci. <u>5</u> , 411 (1970), DDC AD-709750
3601	Structure of the M <sub>x</sub> V <sub>2</sub> O <sub>5</sub> -β and M <sub>x</sub> V <sub>2-y</sub> T <sub>y</sub> O <sub>5</sub> -β Phases	J. Galy J. Darriet A. Casalot J. B. Goodenough	J. Solid State Chem. <u>1</u> , 339 (1970)
3602	Laser Raman Spectroscopy	A. Mooradian	Science <u>169</u> , 20 (1970), DDC AD-714316
3603A	Simple Model Potential Approach to the X-Ray Form Factor in Aluminium	P. Ascarelli P. M. Raccah	Phys. Letters <u>31A</u> , 549 (1970)
3604	A Stable Frequency Doubler Using a Series-Parallel Array of Eight Diodes	D. Parker A. I. Grayzel	Proc. IEEE (Letters) <u>58</u> , 481 (1970), DDC AD-709754
3605	Stepped-Sweep Generator	E. J. Aho	Electron. Instr. Dig. <u>6</u> , 51 (1970)

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| 3607 | Numerical Determination of Potential in Inhomogeneous Dielectrics by Earnshaw's Theorem                            | J. A. Weiss<br>T. G. Bryant                                  | IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 595 (1970),<br>DDC AD-716073 |
| 3608 | Vapor-Crystal Equilibrium and Electrical Properties of HgTe  | A. J. Strauss<br>R. F. Brebrick                              | J. Phys. Chem. Solids <u>31</u> , 2293 (1970), DDC AD-716074                    |
| 3609 | Remote Probing of the Moon by Infrared and Microwave Emissions and by Radar  | T. Hagfors   | Radio Sci. <u>5</u> , 189 (1970),<br>DDC AD-709760                              |
| 3610 | Localized One-Electron States in Perfect Crystals as a Consequence of the Thermal Single-Determinant Approximation | T. A. Kaplan<br>P. N. Argyles                                | Phys. Rev. B <u>1</u> , 2457 (1970),<br>DDC AD-710465                           |
| 3611 | Magnetic Susceptibility of Europium Trifluoride  | S. Kern<br>P. M. Raccach<br>A. Tveten                        | J. Phys. Chem. Solids <u>31</u> , 2639 (1970)                                   |
| 3612 | Theory of Surface Plasmon Excitation in Low-Energy Electron Diffraction and in Photoemission                       | K. L. Ngai<br>E. N. Economou<br>M. H. Cohen                  | Phys. Rev. Letters <u>24</u> , 61 (1970),<br>DDC AD-704636                      |
| 3613 | Perturbation Formulas for Elastic Resonators and Waveguides  | R. A. Waldron  | IEEE Trans. Sonics Ultrason. <u>SU-18</u> , 16 (1971), DDC AD-720640            |
| 3615 | Long Period SH <sub>n</sub>  | J. R. Filson   | Bull. Seismol. Soc. Am. <u>60</u> , 1297 (1970), DDC AD-714317                  |
| 3617 | Comments on "A Simple Adaptive Algorithm for Real-Time Processing in Antenna Arrays"                               | R. T. Lacoss   | Proc. IEEE (Letters) <u>58</u> , 797 (1970)                                     |
| 3618 | Phase Diagram of the Zn-Cd-Te Ternary System   | J. Steininger<br>A. J. Strauss<br>R. F. Brebrick             | J. Electrochem. Soc. <u>117</u> , 1305 (1970), DDC AD-714744                    |
| 3620 | Interband Magnetoreflexion of $\alpha$ -Sn   | S. H. Groves<br>C. R. Pidgeon<br>A. W. Ewald<br>R. J. Wagner | J. Phys. Chem. Solids <u>31</u> , 2031 (1970), DDC AD-723794                    |
| 3623 | "Backward Masking" of Simple Detection Latencies   | M. Grossberg   | Perception and Psychophysics <u>8</u> , 308 (1970), DDC AD-714322               |
| 3624 | Interstellar Masers  | D. F. Dickinson<br>M. M. Litvak<br>B. M. Zuckerman           | Sky and Telescope <u>39</u> , 4 (1970)  |

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3626	Simple Versatile Techniques for Qualitative and Quantitative Evaluation of Spark Source Mass Spectrographic Plates	E. B. Owens	Rev. Sci. Instr. <u>41</u> , 636 (1970), DDC AD-710459
3627	Polarons Bound in a Coulomb Potential. II. 2P-State Zeeman Effect	D. M. Larsen	Phys. Rev. B <u>2</u> , 4209 (1970)
3628	Electronic Structure of Palladium	F. M. Mueller A. J. Freeman J. O. Dimmock A. M. Furdyna	Phys. Rev. B <u>1</u> , 4617 (1970), DDC AD-714311
3630	Detection and Estimation Practices in Radio and Radar Astronomy	T. Hagfors J. M. Moran	Proc. IEEE <u>58</u> , 743 (1970)
3631	Electrical Conductivity in Narrow Energy Bands	R. A. Bari D. Adler R. V. Lange	Phys. Rev. B <u>2</u> , 2898 (1970), DDC AD-723772
3632	Radar Measurements of the Surface Topography and Roughness of Mars	A. E. E. Rogers M. E. Ash C. C. Counselman I. I. Shapiro G. H. Pettengill	Radio Sci. <u>5</u> , 465 (1970)
3633	Electron Mobility in High-Purity GaAs	C. M. Wolfe G. E. Stillman W. T. Lindley	J. Appl. Phys. <u>41</u> , 3088 (1970), DDC AD-714449
3634	High-Resolution Infrared Spectroscopy with a Tunable Diode Laser	E. D. Hinkley	Appl. Phys. Letters <u>16</u> , 351 (1970), DDC AD-709752
3635	Millstone Hill Thomson Scatter Results for 1965	J. V. Evans	Planet. Space Sci. <u>18</u> , 1225 (1970), DDC AD-716056
3636	Spinwave Linewidth Measurements with Low-Power RF Sources	W. E. Courtney D. H. Temme	IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 510 (1970), DDC AD-714734
3637	Midlatitude Ionospheric Temperatures during Three Magnetic Storms in 1965	J. V. Evans	J. Geophys. Res. <u>75</u> , 4803 (1970), DDC AD-714447
3638	Frequency Dependence of a Coupled Pair of Microstrip Lines	E. J. Denlinger	IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 731 (1970)
3639	A Frequency Dependent Solution for Microstrip Transmission Lines	E. J. Denlinger	IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 30 (1971)
3643	Pulsed Plasma Microthruster Propulsion System for Synchronous Orbit Satellite	W. J. Guman D. M. Nathanson	J. Spacecraft <u>7</u> , 409 (1970)



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| 3646  | Quantitative Analysis of<br>Ternary and Quaternary Semi-<br>conducting Alloys with Elec-<br>tron Microprobe                      | M. C. Finn   | Anal. Chem. <u>42</u> , 1084 (1970),<br>DDC AD-714314                    |
| 3647  | Deflection of a CO <sub>2</sub> -Laser Beam<br>in an Absorbing Gas   | H. Kleiman<br>R. W. O'Neil                                   | J. Opt. Soc. Am. <u>61</u> , 12 (1971),<br>DDC AD-722899                 |
| 3648  | n-p Junction Photodetectors in<br>InSb Fabricated by Proton<br>Bombardment   | A. G. Foyt<br>W. T. Lindley<br>J. P. Donnelly                | Appl. Phys. Letters <u>16</u> , 335 (1970),<br>DDC AD-709748             |
| 3650  | Pressure-Induced Pyrochlore<br>to Perovskite Transformations<br>in the Sr <sub>1-x</sub> Pb <sub>x</sub> RuO <sub>3</sub> System | J. A. Kafalas<br>J. M. Longo                                 | Mater. Res. Bull. <u>5</u> , 193 (1970),<br>DDC AD-707582                |
| 3651A | Anomalous Absorption of Micro-<br>waves by Interstellar H <sub>2</sub> CO  | M. M. Litvak   | Astrophys. J. (Letters) <u>160</u> , L-133<br>(1970), DDC AD-710447      |
| 3652  | Resonant Amplification and Cou-<br>pling of Acoustic Surface Waves<br>with Electrons Drifting Across<br>a Magnetic Field         | A. Bers<br>B. E. Burke                                       | Appl. Phys. Letters <u>16</u> , 300 (1970),<br>DDC AD-708592             |
| 3654  | The Integration of Functions<br>Which Are Solutions of Dif-<br>ferential Equations of a Cer-<br>tain Type                        | R. A. Waldron  | Quart. J. Mech. Appl. Math.<br>(London) <u>XXIV</u> , Part 2, 251 (1971) |
| 3655  | High Resolution Millimeter Re-<br>flector Antennas   | J. R. Cogdell<br>J. J. G. McCue<br><i>et al.</i>             | IEEE Trans. Antennas Propag.<br><u>AP-18</u> , 515 (1970), DDC AD-714735 |
| 3657  | X-Ray Diffraction at High Pres-<br>sures (A Review)  | M. D. Banus  | High Temperatures-High Pres-<br>sures <u>1</u> , 483 (1969)              |
| 3658  | The LX-1 Microprocessor and<br>Its Application to Real-Time<br>Signal Processing   | G. D. Hornbuckle<br>E. I. Ancona                             | IEEE Trans. Computers <u>C-19</u> , 710<br>(1970), DDC AD-714053         |
| 3659A | Direct Observation of Acoustical<br>Activity in $\alpha$ Quartz  | A. S. Pine   | Phys. Rev. B <u>2</u> , 2049 (1970),<br>DDC AD-716075                    |
| 3660  | Pressure Dependence of the<br>Electrical Resistivity of EuO  | M. R. Oliver<br>J. A. Kafalas<br>J. O. Dimmock<br>T. B. Reed | Phys. Rev. Letters <u>24</u> , 1064 (1970),<br>DDC AD-710463             |
| 3661  | Collective Oscillations in a<br>Simple Metal. I. Spin Waves  | A. Wilson<br>D. R. Fredkin                                   | Phys. Rev. B <u>2</u> , 4656 (1970),<br>DDC AD-723769                    |
| 3663  | The Crystal Structure of<br>Hexagonal RbNiF <sub>3</sub> (6H)  | R. J. Arnett<br>J. M. Longo                                  | J. Solid State Chem. <u>2</u> , 416 (1970),<br>DDC AD-720641             |

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3664	Magnetoreflexion Studies in Bismuth	M. Maltz M. S. Dresselhaus	Phys. Rev. B <u>2</u> , 2877 (1970), DDC AD-720645
3668	Optical Heterodyne Mixing Efficiency Invariance	A. H. M. Ross	Proc. IEEE <u>58</u> , 1766 (1970), DDC AD-723770
3669	Diffraction of Electromagnetic Waves by a Moving Impedance Wedge	K. C. Lang	Radio Sci. <u>6</u> , 655 (1971)
3670	RFI Measurements on a LES-7 Prototype Pulsed Plasma Thruster	R. E. Dolbec	J. Spacecraft <u>7</u> , 889 (1970), DDC AD-714736
3671	The Venus Radius Controversy	W. B. Smith	Science <u>169</u> , 1001 (1970), DDC AD-714746
3672	Laser Emission from Metal-Semiconductor Barriers on PbTe and $\text{Pb}_{0.8}\text{Sn}_{0.2}\text{Te}$	K. W. Nill A. R. Calawa T. C. Harman J. N. Walpole	Appl. Phys. Letters <u>16</u> , 375 (1970), DDC AD-706308
3674	Thermally Self-Induced Phase Modulation of Laser Beams	F. W. Dabby T. K. Gustafson J. R. Whinnery Y. Kohanzadeh P. L. Kelley	Appl. Phys. Letters <u>16</u> , 362 (1970), DDC AD-723771
3678A	Rigid and Non-Rigid Beam-Lead Substrates	F. J. Bachner R. A. Cohen R. E. McMahon	Solid State Tech. <u>13</u> , 62 (1970), DDC AD-716079
3679	Standing-Wave Saturation Resonances in the $\text{CO}_2$ 10.6- $\mu$ Transitions Observed in a Low-Pressure Room-Temperature Absorber Gas	C. Freed A. Javan	Appl. Phys. Letters <u>17</u> , 53 (1970), DDC AD-714750
3681	Ultrasonic Attenuation Near the Spin-Alignment Transition of EuTe	Y. Shapira T. B. Reed	Phys. Letters <u>31A</u> , 381 (1970)
3682	Narrow-Band Expansions in the Hubbard Model: A Comment	R. A. Bari	Phys. Rev. B <u>2</u> , 2260 (1970), DDC AD-716080
3684	Growth of EuO, EuS, EuSe and EuTe Single Crystals	T. B. Reed R. E. Fahey	J. Crystal Growth <u>8</u> , 337 (1971), DDC AD-729595
3685	Conductivity of a Weakly Ionized Plasma as Related to Particle Diffusion in $\mu$ Space	T. Hagfors	Phys. Fluids <u>13</u> , 2790 (1970), DDC AD-716081
3686	Polarized Maser Emission from Interstellar OH and $\text{H}_2\text{O}$	M. M. Litvak	Phys. Rev. A <u>2</u> , 937 (1970), DDC AD-714054
3687	Phase Diagram of the CdTe-CdSe Pseudobinary System	A. J. Strauss J. Steininger	J. Electrochem. Soc. <u>117</u> , 1420 (1970), DDC AD-716082

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| 3691  | Phase Transitions in Perovskitelike Compounds of the Rare Earths                        | S. Geller<br>P. M. Raccah  | Phys. Rev. B <u>2</u> , 1167 (1970)   |
| 3692  | UHF Avalanche Diode Oscillator Providing 400 Watts Peak Power and 75 Percent Efficiency | D. F. Kostishack   | Proc. IEEE <u>58</u> , 1282 (1970),<br>DDC AD-716083                            |
| 3693  | Balloon Flight Instrumentation for Solar Cell Measurements                              | F. W. Sarles, Jr.<br>W. C. Haase<br>P. F. McKenzie   | Rev. Sci. Instr. <u>42</u> , 346 (1971),<br>DDC AD-728182                       |
| 3694  | Studies of H <sub>2</sub> O Sources by Means of a Very-Long-Baseline Interferometer     | B. F. Burke<br>D. C. Papa<br>G. D. Papadopoulos<br>P. R. Schwartz<br>S. H. Knowles<br>W. T. Sullivan<br>M. L. Meeks<br>J. M. Moran | Astrophys. J. (Letters) <u>160</u> , L63<br>(1970), DDC AD-709030               |
| 3695  | F-Region Heating Observed during the Main Phase of Magnetic Storms                      | J. V. Evans  | J. Geophys. Res. <u>75</u> , 4815 (1970),<br>DDC AD-714446                      |
| 3697  | Analysis of Rayleigh-Wave Multipath Propagation at LASA                                 | J. Capon   | Bull. Seismol. Soc. Am. <u>60</u> , 1701<br>(1970), DDC AD-716084               |
| 3698  | Synthesis of the Fields of a Transverse Feed for a Spherical Reflector                  | L. J. Ricardi  | IEEE Trans. Antennas Propag. <u>AP-19</u> , 310 (1971)                          |
| 3699A | A One-Watt CW High-Efficiency X-Band Avalanche-Diode Amplifier                          | D. M. Snider   | IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 963 (1970),<br>DDC AD-723757 |
| 3701  | Analysis of Frozen Aqueous Solutions by Spark Source Mass Spectroscopy                  | E. B. Owens  | Anal. Letters <u>3</u> , 223 (1970),<br>DDC AD-710462                           |
| 3702  | Impedance Matching to Self-Resonant Diodes  | R. J. Sasiela<br>H. Berger   | IEEE Trans. Electron Devices <u>ED-17</u> , 942 (1970)                          |
| 3704  | Angular Size of the High Energy X-ray Source in the Crab Nebula                         | F. W. Floyd, Jr.   | Nature <u>226</u> , 733 (1970)  |
| 3705  | Realization of the Gauss-in-Gauss Detector Using Minimum-Mean-Squared-Error Filters     | R. J. McAulay<br>R. D. Yates   | IEEE Trans. Inform. Theory <u>IT-17</u> , 207 (1971), DDC AD-729596             |
| 3709  | Speech Spectrograms Using the Fast Fourier Transform                                    | A. V. Oppenheim  | IEEE Spectrum <u>7</u> , 57 (1970),<br>DDC AD-713751                            |

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3710	Seasonal Variation of the O/N <sub>2</sub> Ratio in the F <sub>1</sub> Region	L. P. Cox J. V. Evans	J. Geophys. Res. <u>75</u> , 6271 (1970), DDC AD-722911
3711	Probability Distributions for Estimators of the Frequency-Wavenumber Spectrum	J. Capon N. R. Goodman	Proc. IEEE <u>58</u> , 1785 (1970), DDC AD-723788
3712	Translational Symmetry of Optical Excitons and Magnons in Cr <sub>2</sub> O <sub>3</sub>	J. W. Allen	Phys. Rev. Letters <u>25</u> , 934 (1970), DDC AD-716085
3714A	Observation of F Region Vertical Velocities at Millstone Hill, I, Evidence for Drifts Due to Expansion, Contraction, and Winds	J. V. Evans	Radio Sci. <u>6</u> , 609 (1971)
3714B	Observation of F Region Vertical Velocities at Millstone Hill, II, Variation of Velocity with Altitude	J. V. Evans	Accepted Radio Sci.
3714C	Observation of F Region Vertical Velocities at Millstone Hill, III, Determination of Altitude Distribution of H <sup>+</sup>	J. V. Evans J. M. Holt	Accepted Radio Sci.
3715	Audio Frequency Spectrum Analysis Using MOS Memory Elements	T. Bially	IEEE Trans. Audio Electroacoust. <u>AU-18</u> , 201 (1970), DDC AD-714055
3716	Phase Diagram of the PbTe-PbSe Pseudobinary System	J. Steininger	Met. Trans. <u>1</u> , 2939 (1970), DDC AD-714468
3717	A Comparison of Two Non-reciprocal Latching Phaser Configurations	W. J. Ince J. DiBartolo D. H. Temme F. G. Willwerth	IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 105 (1971), DDC AD-729597
3720	The June 1965 Magnetic Storm: Millstone Hill Observations	J. V. Evans	J. Atmos. Terr. Phys. <u>32</u> , 1629 (1970), DDC AD-716057
3721	Seebeck Coefficients in Vanadium Spinels	J. B. Goodenough	Mater. Res. Bull. <u>5</u> , 621 (1970), DDC AD-714315
3722	Very Long Baseline Interferometry with Large Effective Bandwidth for Phase-Delay Measurements	A. E. E. Rogers	Radio Sci. <u>5</u> , 1239 (1970), DDC AD-716088
3725	Harmonic Generation in Cold Nonuniform Plasma in a Magnetic Field	F. A. Blum	Phys. Fluids <u>14</u> , 196 (1971), DDC AD-721057
3726	Some Experiments on the Propagation of Light Pulses Through Clouds	E. A. Bucher R. M. Lerner C. W. Niessen	Proc. IEEE <u>58</u> , 1564 (1970), DDC AD-721062

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| 3727 | Linewidths of a Gaussian Broadband Signal in a Saturated Two-Level System   | M. M. Litvak  | Phys. Rev. A <u>2</u> , 2107 (1970),<br>DDC AD-720644   |
| 3728 | Very Long Baseline Interferometry of Galactic OH Sources  | B. O. Ronnang<br>O. E. H. Rydbeck<br>J. M. Moran            | Radio Sci. <u>5</u> , 1227 (1970),<br>DDC AD-716092   |
| 3729 | Beam Lead Tunnel Diode Amplifiers on Microstrip   | J. D. Welch   | IEEE Trans. Microwave Theory Tech. <u>MTT-18</u> , 1077 (1970),<br>DDC AD-728083                      |
| 3730 | Si <sub>3</sub> N <sub>4</sub> -Masked Thermally Oxidized Post-Diffused Mesa Process (SIMTOP)   | R. A. Cohen<br>R. W. Mountain                               | IEEE Trans. Electron Devices <u>ED-18</u> , 54 (1971), DDC AD-723787                                  |
| 3731 | A Fast Method of Generating Digital Random Numbers  | C. M. Rader<br>L. R. Rabiner<br>R. W. Schafer               | Bell System Tech. J. <u>49</u> , 2303 (1970)  |
| 3733 | Modal Inversion in Circular Waveguides -<br>Part I: Theory and Phenomenology  | G. N. Tsandoulas<br>W. J. Ince                              | IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 386 (1971),<br>DDC AD-729625                       |
|      | Part II: Application to Latching Nonreciprocal Phasers  | W. J. Ince<br>G. N. Tsandoulas                              | IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 393 (1971),<br>DDC AD-729626                       |
| 3734 | Microsound Waveguides and Waveguide Components  | R. A. Waldron   | Accepted IEEE Trans. Sonics Ultrason.   |
| 3735 | High Pressure Synthesis   | J. B. Goodenough<br>J. A. Kafalas<br>J. M. Longo            | Accepted as chapter in <u>Preparative Methods in Solid State Chemistry</u> (Academic Press, New York) |
| 3736 | Dielectric Green's Function for Parameters of Microstrip  | J. A. Weiss<br>T. G. Bryant                                 | Electron. Letters <u>6</u> , 462 (1970),<br>DDC AD-714752   |
| 3737 | Study of the Spin-Reordering Transition in Cr <sub>5</sub> S <sub>6</sub>   | K. Dwight<br>N. Menyuk<br>J. A. Kafalas                     | Phys. Rev. B <u>2</u> , 3630 (1970),<br>DDC AD-720642   |
| 3738 | Effects of Hydrostatic Pressure and of Jahn-Teller Distortions on the Magnetic Properties of RbFeF <sub>3</sub>   | J. B. Goodenough<br>N. Menyuk<br>K. Dwight<br>J. A. Kafalas | Phys. Rev. B <u>2</u> , 4640 (1970)   |
| 3739 | The Optical Scatter Channel   | R. M. Lerner<br>A. E. Holland                               | Proc. IEEE <u>58</u> , 1547 (1970),<br>DDC AD-721061  |
| 3740 | Resonant Coupling of Landau Levels via LO Phonons in Polar Semiconductors and its Effects on the Landau-Level Raman Scattering from Semiconductor Plasmas | K. L. Ngai  | Phys. Rev. B <u>3</u> , 1303 (1971),<br>DDC AD-723745   |



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| 3741  | Partial and Total Vapor Pressures over Molten $\text{Bi}_2\text{Te}_3$  | R. F. Brebrick<br>F. T. J. Smith                                       | J. Electrochem. Soc. <u>118</u> , 991 (1971), DDC AD-729627                 |
| 3742  | The FDP, A Fast Programmable Signal Processor   | B. Gold<br>I. L. Lebow<br>P. G. McIlugh<br>C. M. Rader                 | IEEE Trans. Computers <u>C-20</u> , 33 (1971), DDC AD-728092                |
| 3743  | An Improved Algorithm for High Speed Autocorrelation with Applications to Spectral Estimation   | C. M. Rader  | IEEE Trans. Audio Electroacoust. <u>AU-18</u> , 439 (1970), DDC AD-723768   |
| 3746  | A 40-ns 17-Bit by 17-Bit Array Multiplier   | S. D. Pezaris  | IEEE Trans. Computers <u>C-20</u> , 442 (1971), DDC AD-729628               |
| 3747  | Electron Spin Waves in Nonmagnetic Conductors: Self-Consistent-Field Theory   | F. A. Blum   | Phys. Rev. B <u>3</u> , 2258 (1971), DDC AD-728094                          |
| 3748  | Shubnikov-de Haas Measurements in $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$   | J. Melngailis<br>T. C. Harman<br>J. G. Mavroides<br>J. O. Dimmock      | Phys. Rev. B <u>3</u> , 370 (1971), DDC AD-721065                           |
| 3749  | Acoustic Surface Wave Amplification Using an Accumulation Layer on Silicon  | B. E. Burke<br>A. Bers<br>H. I. Smith<br>R. A. Cohen<br>R. W. Mountain | Proc. IEEE <u>58</u> , 1775 (1970), DDC AD-722925                           |
| 3751  | Composition Stability Limits for the Rocksalt-Structure Phase $(\text{Pb}_{1-y}\text{Sn}_y)_{1-x}\text{Te}_x$ from Lattice Parameter Measurements | R. F. Brebrick   | J. Phys. Chem. Solids <u>32</u> , 551 (1971)                                |
| 3752A | Raman Study of the Semiconductor-Metal Transition in $\text{Ti}_2\text{O}_3$  | A. Mooradian<br>P. M. Raveah   | Phys. Rev. B <u>3</u> , 4253 (1971), DDC AD-729630                          |
| 3753  | Mean-Square Response of a Second-Order System to Nonstationary, Random Excitation   | L. L. Bucciarelli<br>C. Kuo  | Trans. ASME, J. Appl. Mech., Series E <u>37</u> , 612 (1970), DDC AD-716093 |
| 3755  | A Digital Frequency Synthesizer   | J. Tierney<br>C. M. Rader<br>B. Gold                                   | IEEE Trans. Audio Electroacoust. <u>AU-19</u> , 48 (1971), DDC AD-729598    |
| 3757  | General Relativity and the Orbit of Icarus  | I. I. Shapiro<br>W. B. Smith<br>M. E. Ash<br>S. Herriek                | Astron. J. <u>76</u> , 588 (1971)   |
| 3758  | Critical Magnetic Properties and Exchange Interactions in $\text{EuO}$  | N. Menyuk<br>K. Dwight<br>T. B. Reed                                   | Phys. Rev. B <u>3</u> , 1689 (1971), DDC AD-723746                          |

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| 3759  | Realization of Filter-Squarer Receivers   | D. L. Snyder<br>L. D. Collins                | IEEE Trans. Inform. Theory <u>17</u> , 97 (1971), DDC AD-728184 |
| 3760A | The Liquidus Line and Gibbs Free Energy of Formation of a Crystalline Compound $A_mB_n(c)$ - The Linear Temperature Approximation | R. F. Brebrick                               | Met. Trans. <u>2</u> , 1657 (1971), DDC AD-729631               |
| 3761  | Conceptual Phase Diagram and Its Application to the Spontaneous Magnetism of Several Pyrites                                      | J. B. Goodenough                             | J. Solid State Chem. <u>3</u> , 26 (1971), DDC AD-728185        |
| 3762  | Angular Accuracy of Amplitude Monopulse Off-Boresight Radar   | H. Berger                                    | Proc. IEEE <u>59</u> , 411 (1971), DDC AD-729566                |
| 3765  | Raman Scattering in $CsMnF_3$   | S. R. Chinn                                  | Phys. Rev. B <u>3</u> , 121 (1971), DDC AD-722903               |
| 3766  | Self-Induced Thermal Lens Effect in $CCl_4$ in the Presence of Beam Motion  | R. J. Hull<br>P. L. Kelley<br>R. L. Carman   | Appl. Phys. Letters <u>17</u> , 539 (1970), DDC AD-720653       |
| 3767  | Structure and Properties of the High and Low Pressure Forms of $SrIrO_3$  | J. M. Longo<br>J. A. Kafalas<br>R. J. Arnett | J. Solid State Chem. <u>3</u> , 174 (1971), DDC AD-729572       |
| 3768  | Analysis of Solid Teflon Pulsed Plasma Thruster   | R. J. Vondra<br>K. Thomassen<br>A. Solbes    | J. Spacecraft <u>7</u> , 1402 (1970), DDC AD-721054             |
| 3770  | A Theory of Collision Dominated Electron Density Fluctuations in a Plasma with Applications to Incoherent Scattering              | T. Hagfors<br>R. A. Brockelman               | Phys. Fluids <u>14</u> , 1143 (1971), DDC AD-729567             |
| 3771  | Effect of Porosity on the Ferromagnetic Resonance Linewidth   | G. F. Dionne                                 | Mater. Res. Bull. <u>5</u> , 939 (1970), DDC AD-716094          |
| 3772  | Polaron Zeeman Effect of Shallow Donors in CdTe   | D. R. Cohn<br>D. M. Larsen<br>B. Lax         | Solid State Commun. <u>8</u> , 1707 (1970)                      |
| 3773  | Even-Parity Levels of Donors in Si  | W. H. Kleiner<br>W. E. Krag                  | Phys. Rev. Letters <u>25</u> , 1490 (1970), DDC AD-720647       |
| 3774  | Comment on "Tunable Spin-Flip Laser and Infrared Spectroscopy"  | E. D. Hinkley                                | Phys. Rev. A <u>3</u> , 833 (1971), DDC AD-721055               |
| 3777  | Perturbation Theory for the Bound Polaron   | D. M. Larsen                                 | J. Phys. C <u>3</u> , L185 (1970)                               |
| 3779  | Comparison of Low-Energy Proton Damage in Ion-Implanted and Diffused Silicon Solar Cells  | A. G. Stanley                                | Proc. IEEE (Letters) <u>59</u> , 321 (1971), DDC AD-728186      |

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3782	Type Conversion and n-p Junction Formation in $\text{Hg}_{1-x}\text{Cd}_x\text{Te}$ Produced by Proton Bombardment	A. G. Foyt T. C. Harman J. P. Donnelly	Appl. Phys. Letters <u>18</u> , 321 (1971), DDC AD-729605
3784	Data Adaptive Spectral Analysis Methods	R. T. Lacoss	Geophysics <u>36</u> , 661 (1971)
3785	Rapid Scanning Microscope for Light Probing and Infrared Mapping	R. J. Phelan, Jr. N. L. DeMeo, Jr.	Appl. Opt. <u>10</u> , 858 (1971), DDC AD-729606
3787	Polarization Modulated Magnetorelectance in EuSe and EuTe	C. R. Pidgeon J. Feinleib T. B. Reed	Solid State Commun. <u>8</u> , 1711 (1970)
3788	Field-Dependent Central-Cell Corrections in GaAs by Laser Spectroscopy	H. R. Fetterman D. M. Larsen G. E. Stillman P. E. Tannenwald J. Waldman	Phys. Rev. Letters <u>26</u> , 975 (1971), DDC AD-729607
3789	Identification of Exciton-Neutral Donor Complexes in the Photoluminescence of High Purity GaAs	J. A. Rossi C. M. Wolfe G. E. Stillman J. O. Dimmock	Solid State Commun. <u>8</u> , 2021 (1970), DDC AD-722904
3790	User Program Measurement in a Time-Shared Environment	A. G. Nemeth P. D. Rovner	Commun. ACM <u>14</u> , 661 (1971)
3791	Theory of Electron-Surface-Plasmons Interactions in Tunneling, Low-Energy-Electron Diffraction, and Photoemission	K. L. Ngai E. N. Economou	Phys. Rev. B <u>4</u> , 2132 (1971)
3794	Propagation Phenomena Affecting Satellite Communication Systems Operating in the Centimeter and Millimeter Wavelength Bands	R. K. Crane	Proc. IEEE <u>59</u> , 173 (1971), DDC AD-728187
3795	The Fermi Surface and Optical Properties of Potassium	G. Dresselhaus A. R. Wilson C-Y. Young	Solid State Commun. <u>8</u> , 2125 (1970), DDC AD-728188
3796	Acceptor Luminescence in High-Purity n-Type GaAs	J. A. Rossi C. M. Wolfe J. O. Dimmock	Phys. Rev. Letters <u>25</u> , 1614 (1970), DDC AD-720646
3797	Conductivity Studies in Europium Oxide	M. R. Oliver J. O. Dimmock A. L. McWhorter T. B. Reed	Accepted Phys. Rev. B
3798	A Pulsed Electric Thruster for Satellite Control	R. Vondra K. Thomassen A. Solbes	Proc. IEEE <u>59</u> , 271 (1971), DDC AD-728189

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| 3799 | Continuous Stimulated Spin-Flip Raman Scattering in InSb   | A. Mooradian<br>S. R. J. Brueck<br>F. A. Blum            | Appl. Phys. Letters <u>17</u> , 481 (1970),<br>DDC AD-722924 |
| 3800 | Interband Magnetoreflexion of $\text{Hg}_{1-x}\text{Cd}_x\text{Te}$  | S. H. Groves<br>T. C. Harman<br>C. R. Pidgeon            | Solid State Commun. <u>9</u> , 451 (1971),<br>DDC AD-729574  |
| 3801 | A Variable-Coverage Satellite Antenna System   | A. R. Dion<br>L. J. Ricardi                              | Proc. IEEE <u>59</u> , 252 (1971),<br>DDC AD-728190          |
| 3802 | Molecular Field and Exchange Constants of $\text{Gd}^{3+}$ -Substituted Ferrimagnetic Garnets  | G. F. Dionne   | J. Appl. Phys. <u>42</u> , 2142 (1971),<br>DDC AD-729608     |
| 3804 | Effects of Short-Range Interactions on Electron-Charge Ordering and Lattice Distortions in the Localized State   | R. A. Bari   | Phys. Rev. B <u>3</u> , 2662 (1971),<br>DDC AD-728191        |
| 3805 | Temperature Field and Geophysical Effects of a Downgoing Slab  | M. N. Toksöz<br>J. W. Minear<br>B. R. Julian             | J. Geophys. Res. <u>76</u> , 1113 (1971)                     |
| 3806 | Temporal and Spatial Gain in Stimulated Light Scattering   | N. M. Kroll<br>P. L. Kelley                              | Phys. Rev. A <u>4</u> , 763 (1971)                           |
| 3810 | Satellite Communications to Mobile Platforms   | I. L. Lebow<br>K. L. Jordan, Jr.<br>P. R. Drouilhet, Jr. | Proc. IEEE <u>59</u> , 139 (1971),<br>DDC AD-728192          |
| 3811 | A Wide Dynamic Range Photometer for Film Densitometry  | D. G. Kocher   | J. SMPTE <u>80</u> , 481 (1971)                              |
| 3812 | Two-Magnon Raman Scattering and Exchange Interactions in Antiferromagnetic $\text{KNiF}_3$ and $\text{K}_2\text{NiF}_4$ and Ferrimagnetic $\text{RbNiF}_3$ | S. R. Chinn<br>H. J. Zeiger<br>J. R. O'Connor            | Phys. Rev. B <u>3</u> , 1709 (1971),<br>DDC AD-723795        |
| 3813 | n-p Junction Photovoltaic Detectors in PbTe Produced by Proton Bombardment   | J. P. Donnelly<br>T. C. Harman<br>A. G. Foyt             | Appl. Phys. Letters <u>18</u> , 259 (1971),<br>DDC AD-728193 |
| 3814 | Absence of Hartree-Fock Behavior in Hubbard's Simple Decoupling Solution of Correlated Narrow-Energy-Band-Model  | R. A. Bari<br>T. A. Kaplan                               | Phys. Letters A <u>33A</u> , 400 (1970),<br>DDC AD-721051    |
| 3816 | Semiconductor-Metal Transition in $\text{Ti}_2\text{O}_3$  | H. J. Zeiger<br>T. A. Kaplan<br>P. M. Raecah             | Phys. Rev. Letters <u>26</u> , 1328 (1971),<br>DDC AD-729576 |
| 3818 | A High Temperature Study of Native Defects in ZnTe   | F. T. J. Smith   | J. Phys. Chem. Solids <u>32</u> , 2201 (1971)                |

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3819	Toroid Corner Chamfering as a Method of Improving the Figure of Merit of Latching Ferrite Phasers	W. J. Ince D. H. Temme F. G. Willwerth	IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 563 (1971), DDC AD-729577
3821	Detection of Interfering Rayleigh Waves at LASA	J. Capon J. F. Evernden	Bull. Seismol. Soc. Am. <u>61</u> , 807 (1971)
3823	A High-Yield Photolithographic Technique for Surface Wave Devices	H. I. Smith F. J. Bachner N. Efremow	J. Electrochem. Soc. <u>118</u> , 821 (1971), DDC AD-729609
3824	Predictive Coding in a Homomorphic Vocoder	C. J. Weinstein A. V. Oppenheim	IEEE Trans. Audio Electroacoust. <u>AU-19</u> , 243 (1971)
3827	MSTRIP (Parameters of Microstrip)	T. G. Bryant J. A. Weiss	IEEE Trans. Microwave Theory Tech. <u>MTT-19</u> , 418 (1971), DDC AD-729578
3830	Simultaneous Observation of Proton Precipitation and Auroral Radar Echoes	T. Hagfors R. G. Johnson R. A. Power	J. Geophys. Res. <u>76</u> , 6093 (1971)
3831	Anomalously High "Mobility" in Semiconductors	C. M. Wolfe G. E. Stillman	Appl. Phys. Letters <u>18</u> , 205 (1971), DDC AD-723764
3834	Detection of Air Pollutants with Tunable Diode Lasers	E. D. Hinkley P. L. Kelley	Science <u>171</u> , 635 (1971), DDC AD-723786
3835	Structural Failures in Lightweight Solar Cell Arrays Under Thermal Cycling	A. G. Stanley	IEEE Trans. Aerospace Electron. Systems <u>AES-7</u> , 606 (1971)
3838	Far-Infrared Mixing in High-Purity GaAs	B. Y. Lao M. M. Litvak	J. Appl. Phys. <u>42</u> , 3357 (1971)
3840	Anomalous Properties of the Vanadium Oxides	J. B. Goodenough	Accepted <u>Annual Review of Materials Science</u> , Vol. I
3842	Light Scattering from Acoustic Plasma Waves and Single-Particle Excitations in Semiconductor Magnetoplasmas	F. A. Blum R. W. Davies	Phys. Rev. B <u>3</u> , 3270 (1971), DDC AD-729579
3843	Transmission Diffraction Grating Attenuator for Analysis of High Power Laser Beam Quality	L. C. Marquet	Appl. Opt. <u>10</u> , 960 (1971), DDC AD-729610
3846	Relaxation-Time Ansatz for Quantum Transport Theory: Spin Effects	R. W. Davies F. A. Blum	Phys. Rev. B <u>3</u> , 3321 (1971), DDC AD-729580
3847	Carrier Concentration and Mobility in n- and p-Type ZnTe-Al	F. T. J. Smith	Solid State Commun. <u>9</u> , 957 (1971)



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| 3848 | Limitations in the Use of Dielectric Interference Filters in Wide Angle Optical Receivers  | R. M. Lerner  | Appl. Opt. <u>10</u> , 1914 (1971)                           |
| 3849 | Gravitational Constant: Experimental Bound on Its Time Variation                           | I. I. Shapiro<br>W. B. Smith<br>M. E. Ash<br>R. P. Ingalls<br>G. H. Pettengill  | Phys. Rev. Letters <u>26</u> , 27 (1971),<br>DDC AD-723763   |
| 3850 | Efficient, Single-Mode, cw, Tunable Spin-Flip Raman Laser                                  | S. R. J. Brueck<br>A. Mooradian   | Appl. Phys. Letters <u>18</u> , 229 (1971),<br>DDC AD-729614 |
| 3854 | Laser Tests ICs with Light Touch   | R. E. McMahon   | Electronics <u>44</u> , 92 (1971)                            |
| 3856 | Conditions for Stress-Induced Uniaxial Anisotropy in Magnetic Materials of Cubic Symmetry  | G. F. Dionne  | Mater. Res. Bull. <u>6</u> , 805 (1971)                      |
| 3857 | Observation of Nonextremal Fermi-Surface Orbits in Bulk Bismuth                            | V. E. Henrich   | Phys. Rev. Letters <u>26</u> , 891 (1971),<br>DDC AD-729612  |
| 3859 | Fourth Test of General Relativity: New Radar Result  | I. I. Shapiro<br>M. E. Ash<br>R. P. Ingalls<br>W. B. Smith<br>D. B. Campbell<br>R. B. Dyce<br>R. F. Jurgens<br>G. H. Pettengill | Phys. Rev. Letters <u>26</u> , 1132 (1971),<br>DDC AD-729581 |
| 3860 | Multiple-Scattering Model for Light Transmission through Optically Thick Clouds            | H. M. Heggstad  | J. Opt. Soc. Am. <u>61</u> , 1293 (1971)                     |
| 3861 | Effect of Pressure on the Crystal Structure of CsMnCl <sub>3</sub> and RbMnCl <sub>3</sub> | J. M. Longo<br>J. A. Kafalas  | J. Solid State Chem. <u>3</u> , 429 (1971)                   |
| 3863 | Raman Spectra and Lattice Dynamics of Tellurium  | A. S. Pine<br>G. Dresselhaus  | Phys. Rev. B <u>4</u> , 356 (1971),<br>DDC AD-729583         |
| 3865 | Stable Equilibria of Satellites Containing a Momentum Wheel in a Controlled Gimbal         | J. U. Beusch<br>N. P. Smith   | J. Spacecraft <u>8</u> , 736 (1971)                          |
| 3866 | Optimal Mismatched Filter Design for Radar Ranging, Detection, and Resolution              | R. J. McAulay<br>J. R. Johnson  | IEEE Trans. Inform. Theory <u>IT-17</u> ,<br>696 (1971)      |
| 3867 | Spin-Wave Approach to Two-Magnon Raman Scattering in a Simple Antiferromagnet              | R. W. Davies<br>S. R. Chinn<br>H. J. Zeiger   | Phys. Rev. B <u>4</u> , 992 (1971)                           |

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3868	The Two Components of the Crystallographic Transition in VO <sub>2</sub>	J. B. Goodenough	J. Solid State Chem. <u>3</u> , 490 (1971)
3869	Microwave Studies of Thermal Emission from the Moon	T. Hagfors	<u>Advances in Astronomy and Astrophysics</u> , Vol. 8 (Academic Press, New York, 1971), pp. 1-28
3873	Comparison of Love and Rayleigh-Wave Multipath Propagation at LASA	J. Capon	Accepted Bull. Seismol. Soc. Am.
3875	Sealed-Off Operation of Stable CO Lasers	C. Freed	Appl. Phys. Letters <u>18</u> , 458 (1971), DDC AD-729613
3876	Elimination of Stress Effects on Remanence Ratios of Cubic Magnetic Materials	G. F. Dionne	Accepted IEEE Trans. Magnetics
3885	Accurate X-ray Diffraction Measurements at High Pressures: Volumic Compression of TiO <sub>x</sub>	M. D. Banus M. C. Lavine	Accepted High Temperatures-High Pressures
3887	High Pressure Synthesis of (ABX <sub>3</sub> ) (AX) <sub>n</sub> Compounds	J. A. Kafalas J. M. Longo	Accepted J. Solid State Chem.
3888	Vespa Process for the Analysis of Seismic Signals	D. Davies E. J. Kelly J. R. Filson	Nature <u>232</u> , 8 (1971)
3890	Infrared Spectroscopy of CO Using a Tunable PbSSc Diode Laser	K. W. Nill F. A. Blum A. R. Calawa T. C. Harman	Appl. Phys. Letters <u>19</u> , 79 (1971)
3895	Solar Cell Degradation Experiments on the Lincoln Laboratory LES-4 and LES-5 Satellites	F. W. Sarles, Jr. L. P. Cox	IEEE Trans. Electron Devices <u>ED-18</u> , 507 (1971)
3897	Performance of a Transversely Excited Pulsed HF Laser	S. Marcus R. J. Carbone	IEEE J. Quantum Electron. <u>QE-7</u> , 493 (1971)
3908	Spin Wave Theory of Two-Magnon Raman Scattering in a Two-Dimensional Antiferromagnet	S. R. Chinn R. W. Davies H. J. Zeiger	Accepted Phys. Rev. B
3915	The Tetragonal High-Pressure Form of TaOPO <sub>4</sub>	J. M. Longo J. W. Pierce J. A. Kafalas	Accepted Mater. Res. Bull.
3916	"Mass Anomaly" in the Zeeman Effect of GaAs Donor 2p Levels	G. E. Stillman D. M. Larsen C. M. Wolfe	Phys. Rev. Letters <u>27</u> , 989 (1971)

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3917	Comment on the Magnetic Properties of Several Indium Thiospinels	J. B. Goodenough	Accepted J. Solid State Chem.
3928	Coexistence of Localized and Itinerant d Electrons	J. B. Goodenough	Mater. Res. Bull. <u>6</u> , 967 (1971)
3944	Measurements of D and E Region Electron Densities by the Incoherent Scatter Technique at Millstone Hill	G. W. Armistead J. V. Evans W. A. Reid	Accepted Radio Sci.

## MEETING SPEECHES

MS No.

337	Pulsed-Field Resonance Measurements	S. Foner	<u>High Magnetic Fields, Proc. Int'l. Conf. High Magnetic Fields</u> (Wiley, New York, 1962)
358	Flux Concentration by Stationary Conductors	B. Howland S. Foner	<u>High Magnetic Fields, Proc. Int'l. Conf. High Magnetic Fields</u> (Wiley, New York, 1962)
367	Superconducting Magnets	S. H. Autler	<u>High Magnetic Fields, Proc. Int'l. Conf. High Magnetic Fields</u> (Wiley, New York, 1962)
401	Digital Computers in Communications Engineering	R. M. Fano	<u>Computer Applications, Proc. 1961 Computer Applications Symp.</u> (Macmillan, New York, 1962)
598	ELF Signals from the Earth-Ionosphere Cavity	C. A. Wagner M. Balsler	NEREM Record (1962)
606	Some Practical and Theoretical Aspects of Power Spectrum Measurements	M. J. Levin	NEREM Record (1962)
624	Automatic Speech Recognition	F. C. Frick	NEREM Record (1962)
701	Telling a Computer How to Evaluate Alternatives as One Would Evaluate Them Himself	D. B. Yntema L. Klem	Proc. First Cong. Inform. System Sciences, Hot Springs, Nov. 1962
843A	Magnetic Ordering in Heisenberg Magnets	T. A. Kaplan	Chap. 5 in <u>The Molecular Designing of Materials and Devices</u> , A. R. von Hippel, Ed. (M.I.T. Press, Cambridge, 1965)
900	Properties Imparted by d Electrons	J. B. Goodenough	Chap. 4 in <u>The Molecular Designing of Materials and Devices</u> , A. R. von Hippel, Ed. (M.I.T. Press, Cambridge, 1965)
912	Phase Centers and Phase Patterns	J. Ruze	NEREM Record (1963)
920A	Machine Perception of Three-Dimensional Solids	L. G. Roberts	Chap. 9 in <u>Optical and Electro-Optical Information Processing</u> (M.I.T. Press, Cambridge, 1965)
932	Electrons and Holes in Semiconductors	H. J. Zeiger	Chap. 15 in <u>The Molecular Designing of Materials and Devices</u> , A. R. von Hippel, Ed. (M.I.T. Press, Cambridge, 1965)

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973	Evaluation of Loss Characteristics of High-Quality Varactor Diodes	C. Blake L. Bowles F. Dominick W. Getsinger E. McCurley	Proc. Int'l. Solid-State Circuits Conf., Univ. of Pennsylvania, Feb. 1964
1003	Circulator Synthesis	J. A. Weiss	IEEE Int'l. Microwave Symp. Digest, Long Island, May 1964
1006	Phonon Generation at 70kMcps	J. B. Thaxter P. E. Tannenwald	IEEE Int'l. Microwave Symp. Digest, Long Island, May 1964
1043	A Method of Measuring Small Radar Cross Sections by Digital Vector-Field Subtraction	F. E. Heart P. C. Fritsch	Proc. Radar Reflectivity Measurements Symp., Vol. 1, M.I.T. Lincoln Laboratory, June 1964, DDC AD-601364
1044	The Spin-Drop Method of Measuring Model Radar Cross Section	P. C. Fritsch	Proc. Radar Reflectivity Measurements Symp., Vol. 1, M.I.T. Lincoln Laboratory, June 1964, DDC AD-601364
1052	The Lincoln Laboratory Model Backscatter Range	P. C. Fritsch D. F. Sedivec A. J. Yakutis	Proc. Radar Reflectivity Measurements Symp., Vol. 2, M.I.T. Lincoln Laboratory, June 1964, DDC AD-601365
1124	Engineering Design Factors in Tetrahedral-Anvil-Hinge High Pressure Equipment	A. R. Leyenaar M. D. Banus	Proc. ASME Symp. High Pressure Measurement, New York, Nov. 1964
1134	Chemical Uses of Induction Plasmas	T. B. Reed	<u>The Applications of Plasmas to Chemical Processing</u> , R. F. Baddour and R. S. Timmins, Eds. (M.I.T. Press, Cambridge, 1967)
1149	Reflector Tolerance Determination by Gain Measurement	J. Ruze	NEREM Record (1964)
1150	Input Current Compensation for Transistor Operational Amplifiers	J. N. Harris R. S. Orr	NEREM Record (1964)
1152	Progress and Problems in High Power Phasers for Array Radar	D. H. Temme	NEREM Record (1964)
1156A	Radar Determinations of Planetary Motions	I. I. Shapiro	Radio Sci. <u>69D</u> , 1632 (1965); Trans. Int'l. Astron. Union <u>12B</u> , 615 (1966), DDC AD-638225
1157	Some Observations on Vacuum Voltage Breakdown at About 50 kV	G. E. Vibrans	Proc. Int'l. Symp. Insulation of High Voltages in Vacuum, Cambridge, Oct. 1964



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1193	Design and Construction of a Multimode Circularly Polarized Monopulse Tracking Feed for High-Power Application in a Cassegrain Reflector System	K. J. Keeping	IEEE Int'l. Conv. Record, Pt. 5 (1965)
1206	Content-Addressed Memory Using Magnetoresistive Readout of Magnetic Thin Films	M. Naiman	Proc. Intermag. Conf., Washington, Apr. 1965
1212	A Planar Germanium 3Gc Ultra-fast Switching Transistor	D. S. Granberry R. S. Lewis, Jr.	<u>Computer Seminar</u> (Texas Instruments, Inc., Dallas, 1965)
1217A	Design of a Broadband 60 to 914 Mc/s Stripline Upconverter	A. I. Grayzel R. S. Berg	Conf. Record, First IEEE Annual Commun. Conv., Boulder, June 1965
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1234	The Effect of Cu Diffusion on the Magnetic Properties of Ni-Fe Films	T. S. Crowther	Proc. Intermag. Conf., Washington, Apr. 1965
1268A	The Influence of Shell Behavior on the Design of Large Antennas	J. W. Mar F. Y. M. Wan	<u>Supporting Equipment for Space Vehicles</u> (Gordon & Breach, New York, 1966)
1299	Sequential Decoding for Efficient Channel Utilization	I. Lebow	Conf. Record, First IEEE Annual Commun. Conv., Boulder, June 1965
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1312	The Lincoln Experimental Terminal Signal Processing System	P. R. Drouilhet	Conf. Record, First IEEE Annual Commun. Conv., Boulder, June 1965
1317	Waveguide Non-Reciprocal Remanence Phase Shifters	W. J. Ince E. Stern	Addendum to IEE Conf. Publication No. 13, Int'l. Conf. Microwave Behavior of Ferrimagnetics and Plasmas, London, Sept. 1965
1327	The Lincoln Experimental Terminal	P. Rosen R. V. Wood	Conf. Record, First IEEE Annual Commun. Conv., Boulder, June 1965

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1355	Review of Radar Observations of the Moon	T. Hagfors	<u>The Nature of the Lunar Surface: Proc. of the 1965 IAU-NASA Symposium</u> (Johns Hopkins Press, Baltimore, 1966)
1356	Digital Communication Over Fixed Time Dispersive Channels	J. L. Holsinger	Conf. Record, First IEEE Annual Commun. Conv., Boulder, June 1965
1364	Mutual Coupling Effects in Hybrid-Fed, Crossed-Dipole-Pair Arrays	B. L. Diamond	IEEE Int'l. Antennas Propag. Symp. Digest, Washington, Aug. 1965
1369	The Effect of Roughness on the Polarization of Thermal Emission From a Surface	T. Hagfors J. Morriello	Radio Sci. <u>69D</u> , 1614 (1965)
1372	A Formal Semantics for Programming Languages	J. A. Feldman	Proc. IFIP Cong., New York, May 1965
1386	500-Mc Micrologic Circuits and an Experimental Digital System	Y. Cho J. B. Connolly E. P. Edelson J. Liu E. Tammaru N. S. Zembel	Proc. IFIP Cong., New York, May 1965
1392	Radar Ground-Clutter Shields	J. Ruze F. I. Sheftman D. A. Cahlander	IEEE Int'l. Antennas Propag. Symp. Digest, Washington, Aug. 1965
1393	Radar Astronomy at Lincoln Laboratory	J. V. Evans	IEEE Int'l. Antennas Propag. Symp. Digest, Washington, Aug. 1965
1394	Magneto-Optical Effects in Solids	G. F. Dresselhaus M. S. Dresselhaus	Rend. E. Fermi School <u>34</u> , 198 (1966)
1401	Graphical Communication in a Time-Sharing Environment	L. G. Roberts	Proc. IFIP Cong., New York, May 1965
1424	Mutual Coupling - Why Worry About It?	J. L. Allen	IEEE Int'l. Antennas Propag. Symp. Digest, Washington, Aug. 1965
1426	Early Test Results with the Circularly Polarized Tracking Feed in the Haystack Antenna	K. J. Keeping	NEREM Record (1965)
1427	A Time- and Memory-Sharing Executive Program for Quick-Response On-Line Applications	J. W. Forgie	Proc. Fall Joint Computer Conf., Las Vegas, Nov. 1965

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1432	Parametric Amplifiers in the Lincoln Experimental Terminal	L. W. Bowles	NEREM Record (1965)
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1436	Results of Experiments with the Lincoln Experimental Terminal (LET) Using a Variety of Channel Types	P. Rosen B. E. Nichols	NEREM Record (1965)
1445	An Overview of Satellite Communications, both Past and in the Future	W. E. Morrow, Jr.	<u>Meteorological and Communication Satellites</u> , Michal Lunc, Ed. (Gordon & Breach, New York, 1966)
1457	Dynamics of Orbiting Dust Particles	I. I. Shapiro D. A. Lautman G. Colombo	Proc. Meteor Orbits and Dust Symp., Cambridge, Massachusetts, Aug. 1965; NASA Sp-135, SCA Vol. 11 (1967)
1465A	Antenna Tolerance Theory – A Review	J. Ruze	Proc. Design and Construction of Large Steerable Aerials, IEE Conf. Publication No. 21, London, June 1966
1487	The Design of High Performance NPN Silicon Transistors for Microcircuit Application	R. L. Luce	NEREM Record (1965)
1502	Design Considerations for a Large, Fully Steerable Radio Telescope	H. G. Weiss	Proc. Design and Construction of Large Steerable Aerials, IEE Conf. Publication No. 21, London, June 1966
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1541A	Seeing Solid	R. N. Davis H. E. Meily	Proc. Computerized Imaging Techniques Seminar, Washington, June 1967
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1584	Low-Noise Receivers for Transportable Systems	L. W. Bowles	<u>Low-Temperature Refrigeration for Microwave Systems</u> , W. H. Hogan and G. Klipping, Eds. (Boston Technical Publishers, Cambridge, 1967), DDC AD-706139
1586	Computer Analysis of Ferrite Digital Phase Shifters	W. J. Ince E. Stern	IEEE Int'l. Conv. Record, Pt. 5 (1966)
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1596	Computer Optimization of the Baseband Design of a Unified Carrier Space-Ground Communications Link	W. F. Higgins H. C. Peterson	Proc. Nat. Telemetering Conf., Boston, May 1966
1599	The Use of Sandwich Shells in Large Steerable Aerials	J. W. Mar F. Y. M. Wan	Proc. Design and Construction of Large Steerable Aerials, IEE Conf. Publication No. 21, London, June 1966
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1627	Semiconductor Lasers	R. H. Rediker	IEEE Int'l. Commun. Conf. Digest, Philadelphia, June 1966
1630	The Luminescence in a Magnetic Field of Excitons with a Screened Coulomb Potential	G. B. Wright	Proc. Int'l. Conf. Luminescence, Vol. 2, Budapest, Aug. 1966
1635	Injection Luminescence and Laser Action in Semiconductors	R. H. Rediker	Proc. Int'l. Conf. Luminescence, Vol. 2, Budapest, Aug. 1966
1652	On Optimal Waveform Design Via Control Theoretic Concepts	M. Athans F. C. Schweppe	Proc. Joint Automatic Control Conf., Seattle, Aug. 1966
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1678	The Lincoln Reckoner: An Operation-Oriented, On-Line Facility with Distributed Control	A. N. Stowe R. A. Wiesen D. B. Yntema J. W. Forgie	Proc. Fall Joint Computer Conf., San Francisco, Nov. 1966
1687	Toward a Cooperative Network of Time-Shared Computers	T. Marill L. G. Roberts	Proc. Fall Joint Computer Conf., San Francisco, Nov. 1966
1689	Subnanosecond Micrologic Circuits and Their Applications in a High-Speed Digital System	Y. Cho	<u>Mikroelektronik 2</u> , L. von Steipe, Ed. (Oldenbourg Verlag, Munich, 1967)
1690	Vapor Growth of Iodine Single Crystals	S. Fischler	Extended Abstracts Electrochem. Soc., Fall Mtg., Philadelphia, Oct. 1966
1691	Radiation Effects in Silicon Nitride Insulated Gate Field-Effect Transistors	A. G. Stanley	Extended Abstracts Electrochem. Soc., Fall Mtg., Philadelphia, Oct. 1966
1708	Thin Magnetic Films and Optics in Computer Memories	D. O. Smith	NEREM Record (1966)
1729	Some Recent Lunar Radar Observations and Their Interpretation	T. Hagfors	NEREM Record (1966)
1735	Progress Report on the CAMROC Antenna and Radome Studies	H. G. Weiss	NEREM Record (1966)
1739	Random Sampling of Random Processes: Mean-Square Comparison of Various Interpolators	O. A. Z. Leneman J. B. Lewis	IEEE Trans. Automat. Control <u>AC-11</u> , 396 (1966), DDC AD-646488; Proc. Joint Automatic Control Conf., Seattle, Aug. 1966
1754	THE HAYSTACK ANTENNA - Mechanical Concept, Design and Testing	W. R. Fanning	<u>Deep Space and Missile Tracking Antennas</u> (ASME, New York, 1966)
1756	Correlation Between Dipole Array Calculations and Waveguide Array Measurements	B. L. Diamond D. M. Bernella	IEEE Int'l. Antennas Propag. Symp. Digest, Palo Alto, Dec. 1966
1802A	Maser Dewar for System Operation	A. M. Rich W. A. Peterson	<u>Advances in Cryogenic Engineering</u> , Vol. 13 (Plenum, New York, 1968)
1937	Adaptive Equalizer for Pulse Transmission	C. W. Niessen P. R. Drouilhet	IEEE Int'l. Conf. Commun. Digest, Minneapolis, June 1967
1943	Analysis of Distant-Neighbor Interactions in Cubic Spinels	K. Dwight N. Menyuk	J. Appl. Phys. <u>39</u> , 660 (1968), DDC AD-670772



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1996	High Power and Efficiency in CdS and CdSe Electron Beam Pumped Lasers	C. E. Hurwitz	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2009	Homogeneity Range and Concentration-Pressure Isotherms for HgSe	R. F. Brebrick A. J. Strauss	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
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2014	Low-Temperature Reflection and Electrorreflection Study of Interband Magneto-Optical Transitions in HgTe	C. R. Pidgeon S. H. Groves	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2024	The Raman Spectrum of Trigonal, $\alpha$ -Monoclinic and Amorphous Selenium	A. Mooradian G. B. Wright	<u>The Physics of Selenium and Tellurium</u> (Pergamon, New York, 1969), DDC AD-694135
2038	Resonance Phenomena in Waveguide Arrays	B. L. Diamond	IEEE Int'l. Antennas Propag. Symp. Digest, Ann Arbor, Oct. 1967
2042	A High Speed Arithmetic Unit for Digital Filter Implementation	Y. Cho F. G. Popp	NEREM Record (1967), DDC AD-698569
2043	Varactor Arrays	D. Parker A. I. Grayzel	NEREM Record (1967), DDC AD-698683
2047	Coherent Programming in the Lincoln Reckoner	R. A. Wiesen D. B. Yntema J. W. Forgie A. N. Stowe	<u>Interactive Systems for Experimental Applied Mathematics</u> (Academic Press, New York, 1968)
2050	8 GHz Emission Lines from the Orion Nebula	M. A. Gordon	NEREM Record (1967), DDC AD-697223
2062	Transhorizon Propagation Effects on Siting Satellite Stations	R. K. Crane	NEREM Record (1967), DDC AD-698570
2071	An Autotracking CO <sub>2</sub> Laser Radar	H. A. Bostick A. H. M. Ross	NEREM Record (1967), DDC AD-697224
2075	Band and Transport Parameters of Hg-Chalcogenides	T. C. Harman	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2076	Metal Space Frame Radome Design	R. D'Amato	<u>Structures Technology for Large Radio and Radar Telescope Systems</u> , J. W. Mar and H. Liebowitz, Eds. (M.I.T. Press, Cambridge, 1969)

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2077	A Multi-Diode Power Combiner	W. J. Getsinger	NEREM Record (1967), DDC AD-697225
2079	Optical Absorption and Band Edge Parameters of Group II-VI Semiconductors	J. O. Dimmock	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2092-1	Design Studies for a 440-ft-Diameter Radio and Radar Telescope	H. G. Weiss	<u>Structures Technology for Large Radio and Radar Telescope Systems</u> (M.I.T. Press, Cambridge, 1969)
2092-2	Design of the Haystack Antenna and Radome	H. G. Weiss W. R. Fanning F. A. Folino A. Muldoon	<u>Structures Technology for Large Radio and Radar Telescope Systems</u> (M.I.T. Press, Cambridge, 1969)
2112	Arc Techniques for Material Preparation and Czochralski Crystal Growth	T. B. Reed	<u>High Temperature Technology</u> (Butterworths, London, 1969)
2135	The Status of On-Line Circuit Design	H. B. Lee	NEREM Record (1967)
2150	The Reckoner and the Mediator: A Consumer-Oriented On-Line System	W. P. Harris P. B. Hill	<u>Information Processing 68</u> , A. J. H. Morrell, Ed. (North-Holland, Amsterdam, 1969), DDC AD-707573
2160	Theory of Non-Thermal Emission from Interstellar OH	A. E. E. Rogers	<u>Interstellar Ionized Hydrogen</u> , Y. Terzian, Ed. (W. A. Benjamin, New York, 1968)
2163	Ultraviolet and Infrared Pumping of OH Molecules	M. M. Litvak	<u>Interstellar Ionized Hydrogen</u> , Y. Terzian, Ed. (W. A. Benjamin, New York, 1968)
2166A	Electronic Raman Scattering from Impurities in Semiconductors	G. B. Wright A. Mooradian	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968
2170	Rain Attenuation at Millimeter Wavelengths	R. K. Crane	IEEE Int'l. Conv. Digest (1968), DDC AD-707813
2182	Fourier Expansion for the Deformation Potential in the Diamond Lattice	G. F. Dresselhaus M. S. Dresselhaus	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968
2183	Interband Magnetoreflexion of Gray Tin	S. H. Groves C. R. Pidgeon A. W. Ewald R. J. Wagner	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968
2188	Electroreflection Study of Inversion Asymmetry and Warping Induced Interband Magneto-Optical Transitions in InSb	C. R. Pidgeon S. H. Groves	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968

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2195	An Exciton in a High Magnetic Field – Germanium	E. J. Johnson	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968
2225	Normal Mode Impedances of a Coupled Pair of Microstrip Transmission Lines	T. G. Bryant J. A. Weiss	IEEE Int'l. Microwave Symp. Digest, Detroit, May 1968, DDC AD-706146
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2237	Computer Assistance in the Layout of Integrated Circuit Masks	W. R. Sutherland	IEEE Int'l. Conv. Digest (1968), DDC AD-707817
2291	Fourier Expansions for Dispersion Relations in Semiconductors	G. Dresselhaus	Proc. Ninth Int'l. Conf. Physics of Semiconductors, Moscow, July 1968
2304	Laser Action and Photodetection in Lead-Tin Chalcogenides	I. Melngailis	J. de Physique 29, C4-84 (1968), DDC AD-699265
2325	Thermal Brillouin Scattering Study of the Attenuation of Hypersound in Quartz	A. S. Pine	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695133
2331	Raman Scattering from Spin-Density Fluctuations in n-GaAs	D. C. Hamilton A. L. McWhorter	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695754
2332	Light Scattering from Single-Particle Electron and Hole Excitations in Semiconductors	A. Mooradian	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695887
2333	Raman Scattering from Lattice Vibrations of GaAs <sub>x</sub> P <sub>1-x</sub>	N. D. Strahm A. L. McWhorter	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695131
2334	Landau Level Raman Scattering	G. B. Wright P. L. Kelley S. H. Groves	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695751

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2336	Light Scattering from Plasmons in Semiconductors	A. L. McWhorter	<u>Electronic Structures in Solids</u> (Plenum, New York, 1969), DDC AD-693902
2338	Meaning of an Anomaly in the X-ray Scattering of ZnSe	P. M. Raccach	<u>Electronic Structures in Solids</u> (Plenum, New York, 1969), DDC AD-694134
2339	Band Approach to the Transition Metal Oxides	J. Feinleib	<u>Electronic Structures in Solids</u> (Plenum, New York, 1969), DDC AD-694133
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2346	The Radiation Pattern of a Biconical Antenna with a Finite Source Region	D. Parker	IEEE Int'l. Antennas Propag. Symp. Digest, Boston, Sept. 1968
2350	Experiments with a CO <sub>2</sub> Laser Radar System	H. A. Bostick	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707810
2351	A 48-Inch Telescope/Spectrograph for Reentry Measurements	R. R. Billups	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707811
2352	Optical Measurements and Information on the PRESS KC-135 Aircraft	H. O. Curtis	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707812
2353	The Use of Image Intensifiers in Radiometric Measurements	J. Rotstein F. W. Cramer	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-708596
2357	A New Fabrication Technique Using Beam Leaded Substrates	R. E. McMahon R. Cohen	NEREM Record (1968), DDC AD-698574
2358	IM and Switching Noise of a Pin Diode Switch in the UHF Band	R. N. Assaly R. L. Sicotte	NEREM Record (1968), DDC AD-698572
2360	Quantization Effects in Frequency Sampling Filters	C. Weinstein	NEREM Record (1968), DDC AD-698573
2376	Radar Meteorological Applications of Automatic Film Reading	R. K. Crane A. R. Whitney	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968; SPIE J. <u>9</u> , 46 (1971), DDC AD-708593



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2387A	Some Applications of the Thermal Single-Determinant Approximation	T. A. Kaplan P. N. Argyres	Int'l. J. Quant. Chem. <u>3S</u> , Pt. 2, 851 (1970), DDC AD-707578
2427	Solar Cell Degradation Experiments on LES-4 and -5	F. W. Sarles, Jr. L. P. Cox	Conf. Record Seventh Photovoltaic Specialists Conf., Pasadena, Nov. 1968, DDC AD-708603
2428	Solar Cell Calibration Experiments on LES-6	F. W. Sarles, Jr. A. G. Stanley C. Burrowes	Conf. Record Seventh Photovoltaic Specialists Conf., Pasadena, Nov. 1968, DDC AD-708598
2434	Effect of External Stress on Remanence Ratios and Anisotropy Fields of Magnetic Materials	G. F. Dionne	IEEE Trans. Magnetics <u>MAG-5</u> , 596 (1969), DDC AD-703524
2435	Lithium Ferrite for Microwave Latching Ferrite Devices	D. H. Temme	IEEE Trans. Magnetics <u>MAG-5</u> , 632 (1969)
2449	Band-Pass Time-Domain Reflectometry	C. E. Muehe	IEEE Int'l. Conv. Digest (1969), DDC AD-708601
2457	The Fabrication of Microsound Components	H. I. Smith	IEEE Int'l. Conv. Digest (1969), DDC AD-707816
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2466	The Role of Oxygen Pressure in the Control and Measurement of Composition in 3d Metal Oxides	T. B. Reed	<u>The Chemistry of Extended Defects in Non-Metallic Solids</u> (North-Holland, Amsterdam, 1970), DDC AD-707567
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