

# RCA TECHNICAL PAPERS

(1962)

---

## INDEX

Volume V(b)

---

Published by  
RCA REVIEW  
RADIO CORPORATION OF AMERICA  
RCA LABORATORIES

Princeton

New Jersey

# RCA TECHNICAL PAPERS

(1962)

---

## INDEX

Volume V(b)

---

This index, together with Volume I (1919-1945), Volume II (1946-1950), Volume III (1951-1955), Volume IV (1956-1960), and Volume V(a) (1961) lists substantially all published technical papers on subjects in radio, electronics and related fields, the authors of which were associated with the Radio Corporation of America (including its various divisions and subsidiary companies) at the time the work described in the paper was performed.

The chronological index is followed by an alphabetical listing of authors and by a subject classification section.

\* \* \*

*Any requests for copies of papers listed in this index should be addressed to the publication to which credited.*

\* \* \*

*Please report all corrections or additions to RCA Review, RCA Laboratories, Princeton, New Jersey.*

*The Manager, RCA Review*

RCA TECHNICAL PAPERS

(1962)

---

INDEX, Volume V(b)

---

CONTENTS

ABBREVIATIONS . . . . .	vi
CHRONOLOGICAL INDEX . . . . .	1
AUTHOR INDEX . . . . .	15
SUBJECT INDEX . . . . .	19

## ABBREVIATIONS

- ARS Jour.*—American Rocket Society Journal  
*Elec. Eng.*—Electrical Engineering  
*Jour. Acous. Soc. Amer.*—Journal of the Acoustical Society of America  
*Jour. Amer. Cer. Soc.*—Journal of the American Ceramic Society  
*Jour. Appl. Phys.*—Journal of Applied Physics  
*Jour. Aud. Eng. Soc.*—Journal of Audio Engineering Society  
*Jour. Chem. Phys.*—Journal of Chemical Physics  
*Jour. Electrochem. Soc.*—Journal of the Electrochemical Society  
*Jour. S.M.P.T.E.*—Journal of the Society of Motion Picture and Television Engineers  
*Phys. Rev.*—Physical Review  
*Proc. I.R.E.*—Proceedings of the Institute of Radio Engineers  
*Rev. Mod. Phys.*—Review of Modern Physics  
*Rev. Sci. Instr.*—Review of Scientific Instruments  
*Trans. ASME*—Transactions of the American Society of Mechanical Engineers  
*Trans. I.R.E.*—Transactions of the Institute of Radio Engineers

The following abbreviations are used with the prefix *PG* for I.R.E. Professional Groups:

- A*—Audio  
*AC*—Automatic Control  
*ANE*—Aeronautical and Navigational Electronics  
*AP*—Antennas and Propagation  
*B*—Broadcasting  
*BTR*—Broadcast and Television Receivers  
*CS*—Communications Systems  
*CT*—Circuit Theory  
*EC*—Electronic Computers  
*ED*—Electron Devices  
*EWS*—Engineering Writing and Speech  
*IE*—Industrial Electronics  
*IT*—Information Theory  
*ME*—Military Electronics  
*MTT*—Microwave Theory and Techniques  
*NS*—Nuclear Science  
*PEP*—Product Engineering and Production  
*RFI*—Radio Frequency Interference  
*SET*—Space Electronics and Telemetry

# RCA TECHNICAL PAPERS

(1962)

## CHRONOLOGICAL INDEX

No.		Year
5530	"Characteristics of High-Conversion-Efficiency Gallium-Arsenide Solar Cells," A. R. Gobat, M. F. Lamorte, and G. W. McIver, <i>Trans. I.R.E. PGME</i> (January) .....	1962
5531	"Functional Approach to Critical Measurements of Organic Dielectrics," J. M. Schiller, <i>Electro-Technology</i> (January) .....	1962
5532	"Information Structures for Processing and Retrieving," R. A. Colilla and B. H. Sams, <i>Communications of the ACM</i> (January) .....	1962
5533	"Measuring the Value of Information Services," J. Hillier, <i>Jour. Chem. Documentation</i> (January) .....	1962
5534	"New Materials for Primary Batteries," G. S. Lozier, <i>Trans. I.R.E. PGME</i> (January) .....	1962
5535	"Recent Developments in Maser Devices and Materials," H. J. Gerritsen, <i>Applied Optics</i> (January) .....	1962
5536	"Relays Versus Solid-State Devices in Switching Circuits," D. B. Dobson and L. L. Wolff, <i>Electro-Technology</i> (January) .....	1962
5537	"Symmetry of Transition Metal Impurity Sites in Crystals as Inferred from Optical Spectra," H. A. Weakliem and D. S. McClure, <i>Jour. Appl. Phys.</i> , Supplement (January) .....	1962
5538	"Use of Semantic Structure in Information Systems," J. D. Sable, <i>Communications of the ACM</i> (January) .....	1962
5539	"Syllable Analyzer, Coder and Synthesizer for the Transmission of Speech," H. F. Olson and H. Belar, <i>Trans. I.R.E. PGA</i> (January-February) .....	1962
5540	"Double Injection in Insulators," M. A. Lampert, <i>Phys. Rev.</i> (January 1) .....	1962
5541	"Thermal Conductivity of Ge-Si Alloys at High Temperatures," B. Abeles, D. S. Beers, G. D. Cody, and J. P. Dismukes, <i>Phys. Rev.</i> (January 1) .....	1962
5542	"Circuits to Control and Protect High-Power Modulator Tubes," T. E. Yingst, <i>Electronics</i> (January 12) .....	1962
5543	"New Ferroelectrics of the Tetramethylammonium-Trihalo-Mercurate Family," E. Fatuzzo, R. Nitsche, H. Roetschi, and S. Zingg, <i>Phys. Rev.</i> (January 15) .....	1962
5544	"Nonlinear Optical Effects," R. Braunstein, <i>Phys. Rev.</i> (January 15) .....	1962
5545	"Theory of Cyclotron Resonance Absorption by Negative-Mass Holes in Germanium," R. C. Duncan, Jr. and B. Rosenblum, <i>Phys. Rev.</i> (January 15) .....	1962
5546	"Tunnel-Diode Tester," L. M. Zappulla, <i>Electronics</i> (January 26) .....	1962
5547	"An All-Transistor Six-Meter Receiver," S. W. Daskam and A. Troiano, <i>QST</i> (February) .....	1962
5548	"Bandwidth of Hybrid-Coupled Tunnel-Diode Amplifier," R. M. Kurzrok, <i>Proc. I.R.E.</i> (February) (Correspondence) ....	1962

No.		Year
5549	"Bibliography on Radio Frequency Interference," R. F. Ficcki, <i>Trans. I.R.E. PGRFI</i> (February) .....	1962
5550	"Circuit Applications of the Field Effect Transistor," T. B. Martin, <i>Semiconductor Products</i> (February) .....	1962
5551	"The Effects of Transformer Parameters on Surge-Voltage Transients in Rectifier Circuits," P. E. Kolk, <i>Electronic Equipment Engineering</i> (February) .....	1962
5552	"Heat Treatment of n-Type GaAs by Radiant Energy," T. S. Kinsel and T. E. Seidel, <i>Jour. Appl. Phys.</i> (February) (Letters to the Editor) .....	1962
5553	"Majority-Logic Synthesis by Geometric Methods," H. S. Miiller and R. O. Winder, <i>Trans. I.R.E. PGEC</i> (February) (Correspondence) .....	1962
5554	"Medical Electronics," V. K. Zworykin, <i>Amer. Technion Soc.</i> (February) .....	1962
5555	"Microwave-Carrier Modulation-Demodulation Amplifiers and Logic Circuits," W. Eckhardt and F. Sterzer, <i>Proc. I.R.E.</i> (February) .....	1962
5556	"Nuvistor Two-Meter Transmitter," R. M. Mendelson, <i>RCA Ham Tips</i> (February) .....	1962
5557	"Printout System for the Automatic Recording of the Spectral Analysis of Spoken Syllables," H. F. Olson and H. Belar, <i>Jour. Acous. Soc. Amer.</i> (February) .....	1962
5558	"The Stabilization of Germanium Surfaces by Ethylation, I. Chemical Treatment, II. Chemical Analysis, III. Electrical Measurements," J. A. Amick, G. W. Cullen, and D. Gerlich, <i>Jour. Electrochem. Soc.</i> (February) .....	1962
5559	"A Tunnel-Diode-Tunnel-Rectifier, 15 Nanosecond Memory," M. M. Kaufman, <i>Solid/State/Design</i> (February) .....	1962
5560	"Zero-Bias Sweep-Tube Modulators," G. D. Hanchett, <i>QST</i> (February) .....	1962
5561	"Dielectric Breakdown in Cadmium Sulfide," R. Williams, <i>Phys. Rev.</i> (February 1) .....	1962
5562	"Excitons at the L Absorption Edge in Zinc Blende-Type Semiconductors," M. Cardona and G. Harbeke, <i>Phys. Rev. Letters</i> (February 1) .....	1962
5563	"Photoemission and Band Structure of the Semiconducting Compound CsAu," W. E. Spicer, <i>Phys. Rev.</i> (February 15) .....	1962
5564	"Reflectivity of Gray Tin Single Crystals in the Fundamental Absorption Region," M. Cardona and D. L. Greenaway, <i>Phys. Rev.</i> (February 15) .....	1962
5565	"Designing Tunnel-Diode Circuits Using Composite Characteristics," B. Rabinovici and J. Klapper, <i>Electronics</i> (February 16) .....	1962
5566	"Absorption Edge in Degenerate p-Type GaAs," I. Kudman and T. Seidel, <i>Jour. Appl. Phys.</i> (March) .....	1962
5567	"Adiabatic Acceleration of Ions by Electrons," H. W. Hendel and T. T. Reboul, <i>Physics of Fluids</i> (March) .....	1962
5568	"Analysis and Synthesis of Dynamic Performance of Industrial Organizations—The Application of Feedback Control Techniques to Organizational Systems," R. B. Wilcox, <i>Trans. I.R.E. PGAC</i> (March) .....	1962
5569	"Base-Layer Design for High-Frequency Transistors," H. S. Veloric, C. Fuselier, and D. Rauscher, <i>RCA Review</i> (March) .....	1962
5570	"Broad-Band Parametric Amplifiers by Simple Experimental Techniques," B. B. Bossard and R. Pettai, <i>Proc. I.R.E.</i> (March) (Correspondence) .....	1962
5571	"Character Recognition by Digital Feature Detection," I. H. Sublette and J. Tufts, <i>RCA Review</i> (March) .....	1962
5572	"A Coherent Digital Amplitude and Phase Modulation Scheme," C. N. Campopiano and B. G. Glazer, <i>Trans. I.R.E. PGCS</i> (March) .....	1962

No.		Year
5573	"Derivation of Ideal Electrode Shapes for Electrostatic Beam Focusing," W. W. Siekanowicz, <i>RCA Review</i> (March) . . . . .	1962
5574	"Design of Interstage Coupling Apertures for Narrow-Band Tunable Coaxial Band-Pass Filters," R. M. Kurzrok, <i>Trans. I.R.E. PGMTT</i> (March) (Correspondence) . . . . .	1962
5575	"Design for Product Improvement," H. E. Paschon, <i>Trans. I.R.E. PGPEP</i> (March) . . . . .	1962
5576	"Digital Computer Simulation of Communication Networks," R. L. Dujack and Coauthor, <i>Trans. I.R.E. PGCS</i> (March) . . . . .	1962
5577	"Effect of Obstacle Profile on Knife-Edge Diffraction," M. P. Bachynski and Coauthor, <i>Trans. I.R.E. PGAP</i> (March) . . . . .	1962
5578	"Effect of Propagation Fading and Antenna Fluctuations on Communication Systems in a Jamming Environment," A. B. Glenn and G. Lieberman, <i>Trans. I.R.E. PGCS</i> (March) . . . . .	1962
5579	"Experimental Evidence of Landau Damping in Electron Beams," M. Caulton, B. Hershenov, and F. Paschke, <i>Jour. Appl. Phys.</i> (March) . . . . .	1962
5580	"A Five-Watt 432-Megacycle Transmitter Using the 6939 Twin Power Pentode," J. M. Filipczak, <i>QST</i> (March) . . . . .	1962
5581	"Flux Reversal in Ferrite Cores Under the Effect of a Transverse Field," K. Li, <i>Jour. Appl. Phys.</i> , Supplement (March) . . . . .	1962
5582	"Heat Transfer in Coaxial Lines in Still Air," Z. M. Slusarek, <i>Trans. I.R.E. PGPEP</i> (March) . . . . .	1962
5583	"High Temperature Susceptibility of Garnets: Exchange Interactions in YIG and LuIG," P. J. Wojtowicz, <i>Jour. Appl. Phys. Supplement</i> (March) . . . . .	1962
5584	"Minimum Size and Maximum Packing Density of Nonredundant Semiconductor Devices," J. T. Wallmark and S. M. Marcus, <i>Proc. I.R.E.</i> (March) . . . . .	1962
5585	"The Nature of One-ion Models of the Ferrimagnetic Anisotropy," P. J. Wojtowicz, <i>Jour. Appl. Phys.</i> , Supplement (March) . . . . .	1962
5586	"Pass-Band VSWR of Maximally Flat Band-Pass Filters," R. M. Kurzrok, <i>Trans. I.R.E. PGMTT</i> (Correspondence) (March) . . . . .	1962
5587	"Permalloy-Sheet Transfluxor-Array Memory," G. R. Briggs and J. W. Tuska, <i>Jour. Appl. Phys.</i> , Supplement (March) . . . . .	1962
5588	"Potential Application of Recent Advances in Communication Technology," E. W. Keller, <i>Electrical Communication</i> (March) . . . . .	1962
5589	"Precipitates in Gallium Arsenide Single Crystals," G. Eckhardt, <i>Jour. Appl. Phys.</i> (Letters to the Editor) (March) . . . . .	1962
5590	"Pulsed Radar Measurement of Backscattering from Spheres," S. B. Adler, <i>RCA Review</i> (March) . . . . .	1962
5591	"Requirements for Satellite Service," G. H. Brown, <i>Signal</i> (March) . . . . .	1962
5592	"Silicon Junction Nuclear Particle Detectors," R. L. Williams and P. P. Webb, <i>RCA Review</i> (March) . . . . .	1962
5593	"Space Communications System Design Nomographs," H. R. Mathwich, <i>Trans. I.R.E. PGCS</i> (Correspondence) (March) . . . . .	1962
5594	"A Spectrophotometric Investigation of Dye-Sensitized Photoconductive Zinc-Oxide-Resin Layers Used in the Electrofax Process," E. C. Giaimo, <i>RCA Review</i> (March) . . . . .	1962
5595	"Stable Low-Noise Tunnel-Diode Frequency Converters," F. Sterzer and A. Presser, <i>RCA Review</i> (March) . . . . .	1962
5596	"Suggested Transistor Types for Amateur Applications," K. M. Aitken, <i>QST</i> (March) . . . . .	1962
5597	"Transistor Cutoff Frequencies," J. B. Fisher and A. Troiano, <i>Solid/State/Design</i> (March) . . . . .	1962
5598	"The Unit Cell Dimensions and Crystal Structure of KBaPO <sub>4</sub> ," C. W. Struck and J. G. White, <i>Acta Crystallographica</i>	

No.		Year
	(March) .....	1962
5599	"Value Engineering," A. D. Zappacosta, <i>Trans. I.R.E. PGPEP</i> (March) .....	1962
5600	"Using Instability Characteristics of Semiconductor Plasmas," M. Glicksman, <i>Electronics</i> (March 9) .....	1962
5601	"Paramagnetic Resonance of Ni <sup>2+</sup> and Ni <sup>3+</sup> in TiO <sub>2</sub> ," H. J. Gerritsen and E. S. Sabisky, <i>Phys. Rev.</i> (March 15) ....	1962
5602	"Bounds on Burst-Error-Correcting Codes," C. N. Campopiano, <i>Trans. I.R.E. PGIT</i> (Correspondence) (April) .....	1962
5603	"Characteristics and Mode of Operation of Image Orthicons," R. G. Neuhauser, <i>Proc. NAB Convention</i> (April) .....	1962
5604	"On the Control of Electroluminescent Cells by Unipolar Transistors," T. N. Chin, <i>Jour. Electronics and Control</i> (April) .....	1962
5605	"Correction to 'Bandwidth of Hybrid-Coupled Tunnel-Diode Amplifier,'" R. M. Kurzrok, <i>Proc. I.R.E.</i> (Correspondence) (April) .....	1962
5606	"Extreme-Value Theory Applied to False-Alarm Probabilities," T. L. Fine and M. J. Levin, <i>Trans. I.R.E. PGIT</i> (Correspondence) (April) .....	1962
5607	"Ferroelectric Parametric Amplifier," E. Fatuzzo and H. Roetschi, <i>Proc. I.R.E.</i> (Correspondence) (April) .....	1962
5608	"Landau Damping of Space-Charge Waves," J. Berghammer, <i>Jour. Appl. Phys.</i> (April) .....	1962
5609	"Measurement of Photomagnetic Susceptibility by Means of a Vibrating Reed Balance," J. O. Kessler and A. R. Moore, <i>Rev. Sci. Instr.</i> (April) .....	1962
5610	"Measurements of the Dielectric Constant of Rutile (TiO <sub>2</sub> ) at Microwave Frequencies between 4.2° and 300°K," E. S. Sabisky and H. J. Gerritsen, <i>Jour. Appl. Phys.</i> (April) ..	1962
5611	"A New Approach to Testing High-Voltage Deflection Tubes," H. A. Wittlinger and J. A. Dean, <i>Trans. I.R.E. PGBTR</i> (April) .....	1962
5612	"Passive Radar Measurements at C-Band Using the Sun as a Noise Source," W. O. Mehuron, <i>Microwave Jour.</i> (April) .....	1962
5613	"Some Characteristics of Tunnel-Diode UHF Mixers," J. Klapper, A. Newton, and B. Rabinovici, <i>Proc. I.R.E.</i> (Correspondence) (April) .....	1962
5614	"Sources of Contamination in GaAs Crystal Growth," L. Ekstrom and L. R. Weisberg, <i>Jour. Electrochem. Soc.</i> (April) .....	1962
5615	"A Transistor Vertical Deflection Circuit Employing Transformer Coupling," L. A. Freedman, <i>Trans. I.R.E. PGBTR</i> (April) .....	1962
5616	"Tunnel-Diode Full Binary Adder," C. A. Renton and B. Rabinovici, <i>Trans. I.R.E. PGEC</i> (April) .....	1962
5617	"Tunnel Diode Shift Register," B. Rabinovici, <i>Proc. I.R.E.</i> (Correspondence) (April) .....	1962
5618	"A UHF Television Transmitter," M. L. Kaiser, <i>CQ</i> (April) .....	1962
5619	"Frequency-Independent Voltage Dividers," C. L. Conner, <i>Electronics</i> (Reference Sheet) (April 6) .....	1962
5620	"Microminiature Crystal Oscillator Using Wafer Modules," M. Lysobey, <i>Electronics</i> (April 13) .....	1962
5621	"Effect of a High Electric Field on the Absorption Light by PbI <sub>2</sub> and HgI <sub>2</sub> ," R. Williams, <i>Phys. Rev.</i> (April 15) .....	1962
5622	"Measurement of the Hall Effect in Metal-Free Phthalocyanine Crystals," S. E. Harrison and Coauthors, <i>Phys. Rev. Letters</i> (April 15) .....	1962
5623	"Optical Spectra of Ni <sup>2+</sup> , Co <sup>2+</sup> , and Cu <sup>2+</sup> in Tetrahedral Sites in Crystals," H. A. Weakliem, <i>Jour. Chem. Phys.</i> (April 15) .....	1962
5624	"Goto Circuit TD's Give Rapid A/D Conversion," J. Asin, <i>Electronic Design</i> (April 26) .....	1962



No.		Year
5625	"An Advanced Input-Output System for a COBOL Compiler," C. A. Bouman, <i>Communications of the ACM</i> (May) . . . . .	1962
5626	"Air Bearing Headwheel Panels for RCA TV Tape Recorders," F. M. Johnson, <i>Broadcast News</i> (May) . . . . .	1962
5627	"Anomalous Mobility Effects in Some Semiconductors and In- sulators," L. R. Weisberg, <i>Jour. Appl. Phys.</i> (May) . . . . .	1962
5628	"Antennas and Transmission Lines," H. H. Beverage, <i>Proc.</i> <i>I.R.E.</i> (May) . . . . .	1962
5629	"Beam-Deflection and Photo Devices," E. G. Ramberg and Coauthor, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5630	"Beat Frequency Bridge for Large Signal Field Effect," D. Gerlich, <i>Jour. Appl. Phys.</i> (May) . . . . .	1962
5631	"COBOL Batching Problems," J. W. Mullen, <i>Communications</i> <i>of the ACM</i> (May) . . . . .	1962
5632	"The COBOL Librarian," C. W. Hicks, <i>Communications of</i> <i>the ACM</i> (May) . . . . .	1962
5633	"Communication: A Responsibility and a Challenge," E. M. McElwee, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5634	"Determination of Dislocation Densities in Silicon Crystals by an Optical Method," G. Eckhardt and S. R. Lederhandler, <i>Solid/State/Design</i> (May) . . . . .	1962
5635	"Direct Coupled Coaxial and Waveguide Band-Pass Filters," R. M. Kurzrok, <i>Trans. I.R.E. PGMTT</i> (Correspondence) (May) . . . . .	1962
5636	"Early History of thee Antennas and Propagation Field Until the End of World War I, Part I—Antennas," P. S. Carter and H. H. Beverage, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5637	"Electronics and Health Care," V. K. Zworykin, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5638	"Electronics Fifty Years Later," J. Hillier, <i>I.R.E. Student</i> <i>Quarterly</i> (May) . . . . .	1962
5639	"Energy Conversion Techniques," K. G. Hernqvist, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5640	"Film Recording and Reproduction," M. C. Batsel and G. L. Dimmick, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5641	"Guides to Teaching COBOL," I. Greene, <i>Communications of</i> <i>the ACM</i> (May) . . . . .	1962
5642	"Investigation of the Electrochemical Characteristics of Or- ganic Compounds—IX. Pyrimidine Componds," R. Glicks- man, <i>Jour. Electrochem. Soc.</i> (May) . . . . .	1962
5643	"Loudspeakers," H. F. Olson, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5644	"Machines with Imagination," G. A. Morton, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5645	"Micromodule Reliability," D. T. Levy, <i>Proc. Electronic Com- ponents Conf.</i> (May) . . . . .	1962
5646	"Nuclear Radiation Detectors," G. A. Morton, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5647	"1-KW AM Transmitter with Space-Age Reliability," L. S. Lappin, <i>Broadcast News</i> (May) . . . . .	1962
5648	"Optimum HF Prediction," S. Krevsky, G. B. Bumiller, and Coauthor, <i>Trans. I.R.E. PGAP</i> (May) . . . . .	1962
5649	"On Percentage," E. A. Laport, <i>Microwave Jour.</i> (Letters to the Editor) (May) . . . . .	1962
5650	"Problems Peculiar to Very Large Systems," J. T. Mark and W. G. Henderson, <i>Vacuum</i> (May) . . . . .	1962
5651	"Processing of Sound," H. F. Olson, <i>Proc. I.R.E.</i> (May) . . . . .	1962
5652	"Proving Long Term Reliability for Alloy Transistors," J. R. Willey and Coauthor, <i>Electronic Industries</i> (May) . . . . .	1962
5653	"Stereophonic Phonograph Records, Phase Relations, and Stereo Broadcasting," H. E. Roys, <i>Broadcast News</i> (May) . . . . .	1962
5654	"The Technology of Television Program Production and Re- cording," J. W. Wentworth, <i>Proc. I.R.E.</i> (May) . . . . .	1962

No.		Year
5655	"TV Broadcasting from Satellites," N. I. Korman, <i>Signal</i> (May) .....	1962
5656	"Trap Density Determination by Space-Charge-Limited Currents," R. H. Bube, <i>Jour. Appl. Phys.</i> (May) .....	1962
5657	"Universal Pickup Cartridge for Broadcast Turntables," J. R. Sank, <i>Broadcast News</i> (May) .....	1962
5658	"The Use of Electronic Computers in the Social Sciences," I. Wolff, <i>Proc. I.R.E.</i> (May) .....	1962
5659	"Optical Absorption of Arsenic-Doped Degenerate Germanium," J. I. Pankove and Coauthor, <i>Phys. Rev.</i> (May 1) ..	1962
5660	"Quantum Mechanical Effects in Stimulated Optical Emission," R. C. Williams, <i>Phys. Rev.</i> (May 1) .....	1962
5661	"Measuring Temperature with Diodes and Transistors," L. E. Barton, <i>Electronics</i> (May 4) .....	1962
5662	"More on Photochemical Retina," A. C. Schroeder, <i>Electronics</i> (Comment) (May 4) .....	1962
5663	"Generating a Worst-Case Noise Pattern in Coincident-Current Memories," Y. L. Yao, <i>Electronic Design</i> (May 10) ..	1962
5664	"Instantaneous Measurement of Tape Flutter," A. Schulbach, <i>Electronics</i> (May 11) .....	1962
5665	"Degenerate Germanium. I. Tunnel, Excess, and Thermal Current in Tunnel Diodes," D. Meyerhofer, G. A. Brown, and H. S. Sommers, Jr., <i>Phys. Rev.</i> (May 15) .....	1962
5666	"Optical Spectra of Transition-Metal Ions in Corundum," D. S. McClure, <i>Jour. Chem. Phys.</i> (May 15) .....	1962
5667	"Photoemission of Holes from Tin into Gallium Arsenide," R. Williams, <i>Phys. Rev. Letters</i> (May 15) .....	1962
5668	"Range of Excited Electrons in Metals," J. J. Quinn, <i>Phys. Rev.</i> (May 15) .....	1962
5669	"Analog-To-Digital Converter Uses Transfluxors," N. Aron and C. Granger, <i>Electronics</i> (May 18) .....	1962
5670	"Design Technique for Lumped-Circuit Hybrid Rings," R. M. Kurzrok, <i>Electronics</i> (May 18) .....	1962
5671	"Correction to 'Average vs RMS Meters for Measuring Noise'," J. J. Davidson, <i>Trans. I.R.E. PGA</i> (Correspondence) (May-June) .....	1962
5672	"Acceleration of Receiving-Tube Life Using Reaction-Rate Principles," E. R. Schrader, <i>Proc. M.I.T. Conf. on Physical Electronics</i> (June) .....	1962
5673	"Behavior of Manganese in GaAs," L. J. Vieland, <i>Jour. Appl. Phys.</i> (June) .....	1962
5674	"Broadband Hybrid-Coupled Tunnel-Diode Amplifier in the UHF Region," H. Bovet, D. Fleri, and R. M. Kurzrok, <i>Proc. I.R.E.</i> (Correspondence) (June) .....	1962
5675	"The Calculation of Accurate Triode Characteristics Using a Modern High-Speed Computer," O. H. Schade, Sr., <i>RCA Review</i> (June) .....	1962
5676	"Computer Memories—Possible Future Developments," J. A. Rajchman, <i>RCA Review</i> (June) .....	1962
5677	"Dynamic of Cathode Sublimation in the Intermediate Pressure Range," V. Raag, <i>Proc. M.I.T. Conf. on Physical Electronics</i> (June) .....	1962
5678	"Environmental Testing," R. H. Kirkland, Jr., <i>Encyclopedia of Electronics</i> (June) .....	1962
5679	"Evaporation of Silicon and Germanium by rf Levitation," E. A. Roth, E. A. Margerum, and J. A. Amick, <i>Rev. Sci. Instr.</i> (Notes) (June) .....	1962
5680	"Flying-Spot Scanning," G. A. Robinson, <i>Encyclopedia of Electronics</i> (June) .....	1962
5681	"High-Speed Logic Circuits Using Tunnel Diodes," R. H. Bergman, M. Cooperman, and H. Ür, <i>RCA Review</i> (June) ....	1962

No.		Year
5682	"The Iconoscope," G. A. Robinson, <i>Encyclopedia of Electronics</i> (June) .....	1962
5683	"The Monoscope," G. A. Robinson, <i>Encyclopedia of Electronics</i> (June) .....	1962
5684	"A New Approach to Simplified Parametric Amplifier Tuning," J. A. Luksch and V. Stachejko (Correspondence), <i>Proc. I.R.E.</i> (June) .....	1962
5685	"Optical Maser Action in $\text{CaF}_2:\text{Tm}^{2+}$ ," Z. J. Kiss and R. C. Duncan, Jr. (Correspondence), <i>Proc. I.R.E.</i> (June) .....	1962
5686	"Optical Maser Action in $\text{CaWO}_4:\text{Er}^{3+}$ ," Z. J. Kiss and R. C. Duncan, Jr. (Correspondence), <i>Proc. I.R.E.</i> (June) .....	1962
5687	"Preparation and Magnetic Properties of Some Hexagonal Magnetic Oxides," I. Gordon, R. L. Harvey, and R. A. Braden, <i>Jour. Amer. Cer. Soc.</i> (June) .....	1962
5688	"Project Relay Digital Command System," S. H. Roth and T. A. Janes, II, <i>Trans. I.R.E. PGANE</i> (June) .....	1962
5689	"Properties of an As-S-Br Glass," A. G. Fischer and A. S. Mason, <i>Jour. Opt. Soc. Amer.</i> (Letters to the Editor) (June) .....	1962
5690	"Pulsed and Continuous Optical Maser Action in $\text{CaF}_2:\text{Dy}^{2+}$ ," Z. J. Kiss and R. C. Duncan, Jr., <i>Proc. I.R.E.</i> (Correspondence) (June) .....	1962
5691	"Retrieval of Ordered Lists from a Content-Addressed Memory," M. H. Lewin, <i>RCA Review</i> (June) .....	1962
5692	"Sample Preparation Methods for X-Ray Fluorescence Emission Spectrometry," E. P. Bertin and R. J. Longobucco, <i>Norelco Reporter</i> (June) .....	1962
5693	"Shadow-Mask Picture Tube," D. D. Van Ormer, <i>Encyclopedia of Electronics</i> (June) .....	1962
5694	"Simple Method of Registering Evaporation Masks," G. W. Leck, <i>Rev. Sci. Instr.</i> , (Notes) (June) .....	1962
5695	"Some Recent Developments in Photomultipliers for Scintillation Counting," R. M. Matheson, <i>Trans. I.R.E. PGNS</i> (June) .....	1962
5696	"The Space-Charge-Neutralized Hollow Cathode," A. L. Eichenbaum, <i>RCA Review</i> (June) .....	1962
5697	"Stability Criteria for Television Camera Tubes," K. Sada-shige, <i>Jour. S.M.P.T.E.</i> (June) .....	1962
5698	"The TFT—A New Thin-Film Transistor," P. K. Weimer, <i>Proc. I.R.E.</i> (June) .....	1962
5699	"Tiros I, II and III—Design and Performance," A. Schnapf, <i>Aerospace Eng.</i> (June) .....	1962
5700	"Transistor Mounting and Application Guide," J. Eimbinder, <i>Electronic Industries</i> (June) .....	1962
5701	"Tunnel-Diode Balanced-Pair Switching Analysis," G. B. Herzog, <i>RCA Review</i> (June) .....	1962
5702	"The Window Thickness of Diffused Junction Detectors," R. L. Williams and P. F. Webb, <i>Trans. I.R.E. PGNS</i> (June) ..	1962
5703	"X-Ray Spectrometric Determination of Plate Metals on Plated Wires," E. P. Bertin and R. J. Longobucco, <i>Analytical Chemistry</i> (June) .....	1962
5704	"Plate Dissipation Nomograph for Damper Diodes," H. A. Whittlinger and M. E. Foss, <i>Electronics</i> (Electronics Reference Sheet) (June 8) .....	1962
5705	"New Way to Measure Diode Recovery Time," D. R. Gipp, <i>Electronics</i> (June 13) .....	1962
5706	"Solid-State Panels: Will They Bring Flat-Display TV?," B. Binggeli and E. Fatuzzo, <i>Electronics</i> (June 29) .....	1962
5707	"Tolerances in Coaxial Low-Pass Filters," R. M. Kurzkrok, <i>Electronics</i> (Research and Development) (June 29) .....	1962
5708	"An Accordion Communication System for Mobile Use," J. Klapper and B. Rabinovici, <i>Conf. Proc. 6th National Con-</i>	

No.		Year
	<i>vention on Military Electronics, June 25-27</i> .....	1962
5709	"Apparatus for Measuring the Temperature Dependence of Photo-Hall Effects in High-Resistivity Photoconductors," H. E. MacDonald and R. H. Bube, <i>Rev. Sci. Instr.</i> (July) ..	1962
5710	"An Application of Inverse Probability to Fault Isolation," F. D. Brown, N. F. McAllister, and R. P. Perry, <i>Trans. I.R.E. PGME</i> (July) .....	1962
5711	"Compact Nuvistor Product Detector," R. M. Mendelson, <i>Electronics World</i> (July) .....	1962
5712	"Composite Characteristics of Negative Resistance Devices and Their Application in Digital Circuits," C. A. Renton and B. Rabinovici, <i>Proc. I.R.E.</i> (July) .....	1962
5713	"Computations of Spherical Aberrations," H. Weinstein, <i>Jour. Opt. Soc. Amer.</i> (Letters to the Editor) (July) .....	1962
5714	"Correlation Function at the Output of a Nonlinear Device," G. E. Roberts and H. Kaufman, <i>Trans. I.R.E. PGIT</i> (Correspondence) (July) .....	1962
5715	"Cross Modulation and Modulation Distortion of RF Transistors," G. E. Theriault, <i>Trans. I.R.E. PGBTR</i> (July) ....	1962
5716	"Design Considerations for Using the RCA 2N828 in High Speed Logic Circuits," B. Zuk, <i>Solid-State Design</i> (July)	1962
5717	"Effects of Elevated Temperatures on the Fluorescence and Optical Maser Action of Ruby," J. P. Wittke, <i>Jour. Appl. Phys.</i> (July) .....	1962
5718	"Experimental Tunnel-Diode Electromechanical Transducer Elements and Their Use in Tunnel-Diode Microphones," E. S. Rogers, <i>Jour. Acous. Soc. Amer.</i> (July) .....	1962
5719	"Frequency Dependence of Plasma Acceleration by Radio-Frequency Field Gradient," G. A. Swartz and T. T. Reboul, <i>The Physics of Fluids</i> (July) .....	1962
5720	"A Light Source Modulated at Microwave Frequencies," J. I. Pankove and J. E. Berkeyheiser, <i>Semiconductor Device Conf.</i> , Durham, N. H. (July) .....	1962
5721	"A Nuvistorized Converter for 220 Mc," J. Filipzak, <i>QST</i> (July) .....	1962
5722	"Rectification and Space-Charge-Limited Currents in CdS Films," J. Dresner and F. V. Shallcross, <i>Solid State Electronics</i> (July-August) .....	1962
5723	"Reliability Considerations in the Application of Power Transistors to Consumer Products," C. F. Wheatley and J. W. Englund, <i>Trans. I.R.E. PGBTR</i> (July) .....	1962
5724	"Reflectivity Measurements on InSb-In <sub>2</sub> Te <sub>3</sub> and InAs-In <sub>2</sub> Te <sub>3</sub> Alloys and on Pure InSb, InAs and In <sub>2</sub> Te <sub>3</sub> ," D. L. Greenaway, <i>Proc. Semiconductor Conf. International</i> , Exeter, England, July 11-12 .....	1962
5725	"Behavior of Germanium in Gallium Arsenide," L. J. Vieland and T. E. Seidel, <i>Jour. Appl. Phys.</i> (August) .....	1962
5726	"The Conduction Cooling of Power Tubes in Vehicular Communication Equipment," J. W. Gaylord, <i>Electronic Equipment Engineering</i> (August) .....	1962
5727	"Design Aspects of the Hot Stage for EMU-3 Series Electron Microscopes," A. J. Cardile and J. W. Coleman, <i>Scientific Instruments</i> (August) .....	1962
5728	"Design Considerations for Automobile AM/FM Receivers," R. A. Santilli and H. Thanos, <i>Semiconductor Products</i> (August) .....	1962
5729	"Direct Observation of Longitudinal Modes in the Output of Optical Masers," R. C. Duncan, Jr., Z. J. Kiss, and J. P. Wittke, <i>Jour. Appl. Phys.</i> (August) .....	1962
5730	"5-KW and 10-KW Transmitters for High-Fidelity AM Programming," N. E. Katz, <i>Broadcast News</i> (August) .....	1962

No.		Year
5731	"High-Efficiency Gallium Arsenide Solar Cells," M. F. Lamorte, <i>Proc. Power-Sources Conf.</i> (August) .....	1962
5732	"Increase in Dielectric Constant during Switching in Barium Titanate and Triglycine Sulfate," E. Fatuzzo, <i>Jour. Appl. Phys.</i> (August) .....	1962
5733	"Injection Currents in Insulators," M. A. Lampert, <i>Proc. I.R.E.</i> (August) .....	1962
5734	"Magnesium Primary Cells," G. Lozier and R. Ryan, <i>Proc. Power-Sources Conf.</i> (August) .....	1962
5735	"Magneto-Ionic Duct Propagation Time (Whistler-Mode) vs. Geomagnetic Latitude at 4 KC," C. V. Greenman, <i>Proc. I.R.E.</i> (Correspondence) (August) .....	1962
5736	"Neutron Activation Analysis of Gallium Arsenide Contamination by Quartz," W. Kern, <i>Jour. Electrochem. Soc.</i> (August) .....	1962
5737	"New Rechargeable Systems," E. F. Uhler and G. S. Lozier, <i>Proc. Power-Sources Conf.</i> (August) .....	1962
5738	"Nonlinear Distortion in Tunnel-Diode Amplifiers," R. M. Kurzrok and A. Newton, <i>Proc. I.R.E.</i> (Correspondence) (August) .....	1962
5739	"100 KW Shortwave Transmitter for International Broadcasting," W. S. Day and J. Q. Lawson, <i>Broadcast News</i> (August) .....	1962
5740	"Preparing Carbon Film Nets," J. J. Byrd, <i>Scientific Instruments</i> (August) .....	1962
5741	"RCA Introduces the New EMU-3G," F. J. Hermann, <i>Scientific Instruments</i> (August) .....	1962
5742	"RCA Video Alignment Tape," <i>Broadcast News</i> (August) ..	1962
5743	"Spectrographic Analysis of Gold Alloys Used in Semiconductor Devices," H. M. Hyman, <i>Applied Spectroscopy</i> (August) .....	1962
5744	"A Technique for Equalizing Parabolic Group Delay," R. M. Kurzrok, <i>Proc. I.R.E.</i> (Correspondence) (August) .....	1962
5745	"A Varidirectional Condenser Microphone," M. Rettinger, <i>Jour. S.M.P.T.E.</i> (August) .....	1962
5746	"X-Ray Methods for Determination of Plate Thickness," E. P. Bertin and R. J. Longobucco, <i>Metal Finishing</i> (August) ..	1962
5747	"Current Saturation in Piezoelectric Semiconductors," R. W. Smith, <i>Phys. Rev. Letters</i> (August 1) .....	1962
5748	"Energy Levels of Divalent Thulium in CaF <sub>2</sub> ," Z. J. Kiss, <i>Phys. Rev.</i> (August 1) .....	1962
5749	"Fundamental Reflectivity of GaAs at Low Temperature," D. L. Greenaway, <i>Phys. Rev. Letters</i> (August 1) .....	1962
5750	"Alpha-Cutoff Test Set Checks VHF Transistors," J. Lempner, <i>Electronic Design</i> (August 2) .....	1962
5751	"Precise Converter Takes Current Analog of Digital Voltage Pulses," N. Aron, <i>Electronics</i> (August 10) .....	1962
5752	"Magnetic-Field Dependence of the Velocity of Sound in Metals," J. J. Quinn and S. Rodriguez, <i>Phys. Rev. Letters</i> (August 15) .....	1962
5753	"Versatile Zener Diode Array Forms High-Speed Quantizer," J. J. Kolarcik, <i>Electronics</i> (August 17) .....	1962
5754	"The Analysis of Major and Minor Constituents in Ceramic Materials by X-Ray Spectrometry," R. J. Longobucco, <i>Analytical Chemistry</i> (September) .....	1962
5755	"Angle Estimation Accuracy with a Monopulse Radar in the Search Mode," S. Sharensen, <i>Trans. I.R.E. PGANE</i> (September) .....	1962
5756	"Couplings in Direct-Coupled Waveguide Band-Pass Filters," R. M. Kurzrok, <i>Trans. I.R.E. PGMTT</i> (Correspondence) (September) .....	1962
5757	"Effects of Fading on Quadrature Reception of Orthogonal Signals," G. Lieberman, <i>RCA Review</i> (September) .....	1962

No.		Year
5758	"Electronic Techniques in a System of Highway Vehicle Control," L. E. Flory, G. W. Gray, R. E. Morey, W. S. Pike, and C. O. Caulton, <i>RCA Review</i> (September) .....	1962
5759	"Emission Spectrographic Method for the Determination of Microgram Quantities of Ba, Sr, Mg, Mn, Si, and Ni in Sublimed Deposits on Micas, Grids, Plates, and Glass Bulbs of Electron Tubes," A. M. Liebman, <i>Analytical Chemistry</i> (September) .....	1962
5760	"Heating of Waveguide Windows as a Limit to the Output Power of Microwave Tubes," F. Paschke, <i>RCA Review</i> (September) .....	1962
5761	"Heterodyne Receivers for RF-Modulated Light Beams," D. J. Blattner and F. Sterzer, <i>RCA Review</i> (September) .....	1962
5762	"A Light Source Modulated at Microwave Frequencies," J. I. Pankove and J. E. Berkeyheiser, <i>Proc. I.R.E.</i> (Correspondence) (September) .....	1962
5763	"Limiting-Current Effects in Low-Noise Traveling-Wave-Tube Guns," A. L. Eichenbaum and J. M. Hammer, <i>RCA Review</i> (September) .....	1962
5764	"Nonlinear Electrodynamics of Superconductors with a Very Small Coherence Distance," R. H. Parmenter, <i>RCA Review</i> (September) .....	1962
5765	"An Organic Photoconductive System," H. G. Greig, <i>RCA Review</i> (September) .....	1962
5766	"The Razor's Edge of Support System Management," J. W. V. Roy, <i>Trans. I.R.E. PGEM</i> (September) .....	1962
5767	"Reverse-Primary-Emission Measurement by Power-Application Techniques," J. M. Forman and D. W. Maile, <i>Electrical Design News</i> (September) .....	1962
5768	"Some Physical Aspects of Electron-Receiving-Tube Operation," M. Natapoff, <i>Amer. Jour. Phys.</i> (September) ....	1962
5769	"Spectral-Line Interference in X-Ray Fluorescence Spectrometry," E. P. Bertin and R. J. Longobucco, <i>Norelco Reporter</i> (September) .....	1962
5770	"The Square-Law Single-Sideband System," C. A. Von Urrf and F. I. Zonis, <i>Trans. I.R.E. PGCS</i> (September) .....	1962
5771	"Stability of Tunnel-Diode Oscillators," F. Sterzer, <i>RCA Review</i> (September) .....	1962
5772	"Studies of the Ion Emitter Beta-Eucryptite," F. M. Johnson, <i>RCA Review</i> (September) .....	1962
5773	"Accuracy Is Improved in Vidicon Bandwidth Tests," J. Pirkle, <i>Electronics</i> (September 14) .....	1962
5774	"How to Design Micromodules," R. DiStefano, Jr., <i>Electronics</i> (September 14) .....	1962
5775	"Dispersion Relations for Electron Scattering from Atomic Helium," E. Gerjuoy and Coauthor, <i>Phys. Rev.</i> (September 15) .....	1962
5776	"Evidence for the Existence of High Concentrations of Lattice Defects in GaAs," J. Blanc, R. H. Bube, and L. R. Weisberg, <i>Phys. Rev. Letters</i> (September 15) .....	1962
5777	"Ferroelectricity in SbSI," E. Fatuzzo, G. Harbeke, W. J. Merz, R. Nitsche, H. Roetschi, and W. Ruppel, <i>Phys. Rev.</i> (September 15) .....	1962
5778	"Theoretical Considerations on the Switching Transient in Ferroelectrics," E. Fatuzzo, <i>Phys. Rev.</i> (September 15) ..	1962
5779	"An X-Band Periodic-Focused Traveling-Wave-Tube Limiter Chain," R. McMurrough, G. Novak, and W. J. Caton, <i>Military Systems Design</i> (September-October) .....	1962
5780	"Cerenkov Radiation as Leaky Surface Waves," L. W. Zelby, <i>Proc. I.R.E.</i> (Correspondence) (October) .....	1962

No.		Year
5781	"Comments on 'Broad-Band Parametric Amplifiers by Simple Experimental Techniques,'" B. B. Bossard and R. M. Kurzrok, <i>Proc. I.R.E.</i> (Correspondence) (October) .....	1962
5782	"Comments on 'Symmetrical RC Distributed Networks,'" J. Pearl, <i>Proc. I.R.E.</i> (Correspondence) (October) .....	1962
5783	"Demonstration of a Speech Processing System Consisting of a Speech Analyzer, Translator, Typer, and Synthesizer," H. F. Olson, H. Belar, and R. D. Sobrino, <i>Jour. Acous. Soc. Amer.</i> (October) .....	1962
5784	"An Electrostatically Focused Vidicon," J. E. Kuehne and R. G. Neuhauser, <i>Jour. S.M.P.T.E.</i> (October) .....	1962
5785	"The Measurement of the Velocity of Light," A. C. Schroeder, <i>Proc. I.R.E.</i> (Correspondence) (October) .....	1962
5786	"Minute Resistivity Variations in Germanium Crystals and Their Effect on Devices," G. Meltzer, <i>Jour. Electrochem. Soc.</i> (October) .....	1962
5787	"Multiple-Target Data Handling with a Monopulse Radar," M. Korff, C. M. Brindley, and M. H. Lowe, <i>Trans. I.R.E. PGME</i> (October) .....	1962
5788	"Non-directional Stereo Effects," C. J. Hirsch, <i>Electronics World</i> (October) .....	1962
5789	"Project Relay—Another Step in Satellite Communications," R. W. Wilmotte, <i>Signal</i> (October) .....	1962
5790	"Super-Power Ultra-High-Frequency Amplifier-Tube Developments," A. C. Tunis and R. E. Reed, <i>Communications and Electronics</i> (October) .....	1962
5791	"The Theory of Cerenkov Effect Based on Lorentz Transformations," L. W. Zelby, <i>Jour. Appl. Phys.</i> (October) .....	1962
5792	"Tree-Like Structure of Block Codes," D. M. Jones and Co-author, <i>Trans. I.R.E. PGIT</i> (Correspondence) (October) ..	1962
5793	"Tunneling-Assisted Photon Emission in Gallium Arsenide p-n Junctions," J. I. Pankove, <i>Phys. Rev. Letters</i> (October 1)	1962
5794	"Properties of Cadmium Sulfide Crystals with High Impurity Concentrations," R. H. Bube, E. L. Lind, and A. B. Dreeben, <i>Phys. Rev.</i> (October 15) .....	1962
5795	"Some Aspects of the Kapitza Resistance," J. I. Gittleman and S. Bozowski, <i>Phys. Rev.</i> (October 15) .....	1962
5796	"Advanced Radar Signal and Data Processing," A. I. Mintzer, <i>Space/Aeronautics</i> (November) .....	1962
5797	"The Design and Operational Philosophy of the Ballistic Camera Systems at the Atlantic Missile Range," A. E. Gleib, <i>Jour. S.M.P.T.E.</i> (November) .....	1962
5798	"The Design and Performance of a High-Resolution Vidicon," R. G. Neuhauser, B. H. Vine, J. E. Kuehne, and G. A. Robinson, <i>Jour. S.M.P.T.E.</i> (November) .....	1962
5799	"Effects of Random Errors on the Performance of a Linear Butler Array," M. J. Kiss, <i>Trans. I.R.E. PGAP</i> (November)	1962
5800	"Fast High-Sensitivity Silicon Photodiodes," R. L. Williams, <i>Jour. Opt. Soc. Amer.</i> (November) .....	1962
5801	"Feed Assembly for Furnaces which Utilize the Verneuil Single-Crystal Growth Technique," M. Kestigian, <i>Rev. Sci. Instr.</i> (Notes) (November) .....	1962
5802	"Frequency Multipliers and Harmonic Generators Using Varactor Diodes," H. C. Lee, <i>Semiconductor Products</i> (November) .....	1962
5803	"A High Performance AM/FM Receiver Using an Autodyne Converter," H. Thanos and L. Plus, <i>Trans. I.R.E. PGBTR</i> (November) .....	1962
5804	"The Increasing Competition for Engineers," E. I. Anderson, <i>Trans. I.R.E. PGBTR</i> (November) .....	1962
5805	"New Modulation and FM Multiplex Monitor," H. J. Shay, <i>Broadcast News</i> (November) .....	1962

No.		Year
5806	"Practical FM Stereo," A. H. Bott, <i>Broadcast News</i> (November) .....	1962
5807	"Radiation-Induced Changes in Silicon Photovoltaic Cells," J. A. Baicker and B. W. Faughnan, <i>Jour. Appl. Phys.</i> (November) .....	1962
5808	"A Transistorized Multiplex Demodulator for FM Stereophonic Reception," J. W. Englund and L. Plus, <i>Trans. I.R.E. PGBTR</i> (November) .....	1962
5809	"Transistorized Video Distribution Amplifiers," <i>Broadcast News</i> (November) .....	1962
5810	"TR-22 All-Transistor TV Tape Recorder," A. C. Luther and R. N. Hurst, <i>Broadcast News</i> (November) .....	1962
5811	"Photoemissive Studies of the Band Structure of Silicon," W. E. Spicer and R. E. Simon, <i>Phy. Rev. Letters</i> (November 1) .....	1962
5812	"Electron Paramagnetic Resonance of Manganese in Gallium Arsenide," N. Almeleh and B. Goldstein, <i>Phys. Rev.</i> (November 15) .....	1962
5813	"Magnetoplasma Resonance in Germanium," R. E. Michel and B. Rosenblum, <i>Phys. Rev.</i> (November 15) .....	1962
5814	"Photoconductivity in Cubic Cadmium Sulfide," E. L. Lind and R. H. Bube, <i>Jour. Chem. Phys.</i> (Notes) (November 15) ..	1962
5815	"An All-Transistor Television Tape Recorder," A. H. Lind, <i>Jour. S.M.P.T.E.</i> (December) .....	1962
5816	"An Analysis of the Effects of Reactances on the Performance of the Tunnel-Diode Balanced-Pair Logic Circuit," J. J. Gibson, <i>RCA Review</i> (December) .....	1962
5817	"Breakdown Voltage of GaAs Diodes Having Nearly Abrupt Junctions," H. Kressel, A. Blicher, and L. H. Gibbons, Jr., <i>Proc. I.R.E.</i> (Correspondence) (December) .....	1962
5818	"The Business Radio Service," G. W. Pettengill, <i>Electronics World</i> (December) .....	1962
5819	"Design Considerations for Double-Diffused Silicon Switching Transistors," H. Kressel, H. S. Veloric, and A. Blicher, <i>RCA Review</i> (December) .....	1962
5820	"An Evaluation of Tunnel-Diode Balanced-Pair Logic Systems," H. S. Miiller and R. A. Powlus, <i>RCA Review</i> (December) .....	1962
5821	"Microaperture High-Speed Ferrite Memory," R. Shahbender, T. Nelson, R. Lochinger, and J. Valentine, <i>RCA Review</i> (December) .....	1962
5822	"Non-Directional Stereo," C. J. Hirsch, <i>Electronics World</i> [Letters from our Readers] (December) .....	1962
5823	"A Nuistor Converter for 432 Megacycles," J. M. Filipczak, <i>RCA Ham Tips</i> (December) .....	1962
5824	"Prediction of Rise Time in Junction Transistors," P. E. Kolk, <i>Proc. I.R.E.</i> (Correspondence) (December) .....	1962
5825	"Rapid Measurement of Transistor Junction-to-Case Thermal Resistance," P. A. Peckover, <i>Semiconductor Products</i> (December) .....	1962
5826	"Reciprocal Ferrite Phase-Shifter Measurements," M. J. Schindler, <i>Proc. I.R.E.</i> (Correspondence) (December) ...	1962
5827	"Tunnel Diode Decade Counter," B. Rabinovici, <i>Rev. Sci. Instr.</i> (December) .....	1962
5828	"Vapor Pressure Data for the Solid and Liquid Elements," R. E. Honig, <i>RCA Review</i> (December) .....	1962
5829	"Temperature Dependence of Photo-Hall Effects in High-Resistivity Gallium Arsenide. I. One-Carrier Effects," R. H. Bube and H. E. MacDonald, <i>Phys. Rev.</i> (December 1) ...	1962
5830	"Temperature Dependence of Photo-Hall Effects in High-Resistivity Gallium Arsenide. II. Two-Carrier Effects," R. H. Bube and H. E. MacDonald, <i>Phys. Rev.</i> (December 1)	1962



No.		Year
5831	"Electrodynamic Properties of a Quantum Plasma in a Uniform Magnetic Field," J. J. Quinn and S. Rodriguez, <i>Phys. Rev.</i> (December 15) .....	1962
5832	"Quantum Effects in Ultrasonic Attenuation in Metals in a Magnetic Field," J. J. Quinn and S. Rodriguez, <i>Phys. Rev.</i> (December 15) .....	1962
5833	"Radiation Defect Introduction Rates in n- and p-Type Silicon in the Vicinity of the Radiation Damage Threshold," H. Flicker, J. J. Loferski, and J. Scott-Monck, <i>Phys. Rev.</i> (December 15) .....	1962
5834	"Image Processing with Optical Panels," H. O. Hook and H. Weinstein, <i>Electronics</i> (December 21) .....	1962
5835	"Attitude Determination—A New Dimension for Radar," A. Reich, <i>National Convention on Military Electronics, Conf. Proc.</i> .....	1962
5836	"Chirp Signals for Communications," M. R. Winkler, <i>I.R.E. Wescon Convention Record, Part 7, Communications</i> .....	1962
5837	"A Comparative Evaluation of Sequential Decoding Algorithms," D. M. Jones, W. R. Wadden, and J. J. Bussgang, <i>I.R.E. Wescon Convention Record, Part 4, Automatic Control; Electronic Computers; Information Theory</i> .....	1962
5838	"Considerations on Communication with Intelligent Life in Outer Space," M. Handelsman, <i>I.R.E. Wescon Convention Record, Part 5, Aeronautical and Navigational Electronics; Military Electronics; Space Electronics and Telemetry</i> .....	1962
5839	"Constant Channel Flow in an A.C. Generator," G. F. Miller, L. J. Kijewski, and J. B. Fanucci, <i>National Aerospace Electronics Conf. Proc.</i> .....	1962
5840	"The Cost of Radio Frequency Interference," F. L. Ankenbrandt, <i>I.R.E. International Convention Record, Part 5, Aerospace and Navigational Electronics; Military Electronics; Radio Frequency Interference; Space Electronics and Telemetry</i> .....	1962
5841	"The DAMP Operational Use of a Satellite Navigation System," L. Farkas, <i>National Winter Convention on Military Electronics, Conf. Proc.</i> .....	1962
5842	"A Design Plan for an Integrated Satellite Tracking and Communications System," L. Farkas, <i>I.R.E. Wescon Convention Record, Part 5, Aeronautical and Navigational Electronics; Military Electronics; Space Electronics and Telemetry</i> .....	1962
5843	"On the Determination of the Position and Velocity Vector of a Navigator Using a Satellite as Reference," I. Kanter, <i>National Winter Convention on Military Electronics, Conf. Proc.</i> .....	1962
5844	"Estimation of Component and System Failure Rates from Test Data," R. Mirsky, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962
5845	"General Principles of Operations in Neuron Nets with Application to Acoustical Pattern Recognition," T. Martin, F. Putzrath, and Coauthor, <i>Proc. Second Annual Bionics Symposium, Biological Prototypes and Synthetic Systems, Vol. 1</i> .....	1962
5846	"Interleaved Sound Transmission Within the Television Picture," J. L. Hathaway, <i>I.R.E. International Convention Record, Part 7, Audio; Broadcasting; Broadcast and Television Receivers</i> .....	1962
5847	"Kinematic Factors in Satellite Detection," N. S. Potter, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962
5848	"Methodology for Performance Degradation Analysis," S. Weisman and B. Tiger, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962

No.		Year
5849	"Microwave Phase Measurement of Dispersed Pulse Transmitter Systems," R. F. Koontz, <i>I.R.E. Wescon Convention Record, Part 1, Antennas; Microwave Theory and Techniques</i> .....	1962
5850	"A 120-Watt 50-Megacycle Transmitter," G. D. Hanchett, <i>Ham Tips</i> (Summer) .....	1962
5851	"Optical-Band Radio Communication," D. G. C. Luck, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962
5852	"Performance of Digital Communications Systems in an Arbitrary Fading Rate and Jamming Environments," A. B. Glenn and G. Lieberman, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962
5853	"Performance of Digital Communications Systems in an Arbitrary Fading Rate and Jamming Environments," A. B. Glenn and G. Lieberman, <i>I.R.E. Wescon Convention Record, Part 5, Aeronautical and Navigational Electronics; Military Electronics; Space Electronics and Telemetry</i> .....	1962
5854	"Placement of Technical Papers for Maximum Effectiveness," C. A. Meyer, <i>I.R.E. International Convention Record, Part 10, Education; Engineering Management; Engineering Writing and Speech</i> .....	1962
5855	"Potential Application of Recent Advances in Communication Technology," E. W. Keller and Coauthor, <i>5th National Symposium on Global Communications</i> .....	1962
5856	"The RCA Multi-Font Reading Machine," W. J. Hannan, <i>Proc. Symposium on Optical Character Recognition</i> (January 15-17) .....	1962
5857	"Reports as a Measure of Competence," W. B. Dennen, <i>Proc. National Electronics Conf.</i> .....	1962
5858	"The Reliability of Recursive Triangular Switching Networks Built of Rectifier Gates," S. Levy, <i>Redundancy Techniques for Computing Systems</i> , p. 129, Spartan Books .....	1962
5859	"Results of Space Tracking and Prediction with Precision Radar," S. Shucker, <i>National Symposium on Space Electronics and Telemetry, PGSET Record</i> .....	1962
5860	"A Simplified Work-Load Evaluation and Cost Control Method for Report Production," P. Alelyunas, <i>I.R.E. Wescon Convention Record, Part 8, Instrumentation; Engineering Management</i> .....	1962
5861	"Some Special Sample-Mounting Devices for the X-Ray Fluorescence Spectrometer," E. P. Bertin and R. J. Longobucco, <i>Advances in X-Ray Analysis</i> , Vol. 5, p. 447, Plenum Press, New York, N. Y. ....	1962
5862	"System Design of Orbital Tracking Instrumentation," S. Shucker and R. Lieber, <i>Conf. Proc. 6th National Convention on Military Electronics, June 25-27</i> .....	1962
5863	"Transmission Programming for Energy Conservation in Space Communications," N. S. Potter, <i>I.R.E. International Convention Record, Part 8, Communications Systems; Vehicular Communications</i> .....	1962

# AUTHORS INDEX

(1962)

Numbers refer to Chronological Index

## A

Abeles, B., 5541  
Adler, S. B., 5590  
Aitken, K. M., 5596  
Alelyunas, P., 5860  
Almeleh, N., 5812  
Amick, J. A., 5558, 5679  
Anderson, E. I., 5804  
Ankenbrandt, F. L., 5840  
Aron, N., 5669, 5751  
Asin, J., 5624

## B

Bachynski, M. P., 5577  
Baicker, J. A., 5807  
Barton, L. E., 5661  
Batsel, M. C., 5640  
Beers, D. S., 5541  
Belar, H., 5539, 5557, 5783  
Berghammer, J., 5608  
Bergman, R. H., 5681  
Berkeyheiser, J. E., 5720, 5762  
Bertin, E. P., 5692, 5703, 5746, 5769,  
5861  
Beverage, H. H., 5628, 5636  
Binggeli, B., 5706  
Blanc, J., 5776  
Blattner, D. J., 5761  
Blicher, A., 5817, 5819  
Bossard, B. B., 5570, 5781  
Bott, A. H., 5806  
Bouman, C. A., 5625  
Boyet, H., 5674  
Bozowski, S., 5795  
Braden, R. A., 5687  
Braunstein, R., 5544  
Briggs, G. R., 5587  
Brindley, C. M., 5787  
Brown, F. D., 5710  
Brown, G. A., 5665  
Brown, G. H., 5591  
Bube, R. H., 5656, 5709, 5776, 5794,  
5814, 5829, 5830  
Bumiller, G. B., 5648  
Bussgang, J. J., 5837  
Byrd, J. J., 5740

## C

Campopiano, C. N., 5572, 5602  
Cardile, A. J., 5727  
Cardona, M., 5562, 5564  
Carter, P. S., 5636  
Caton, W. J., 5779  
Caulton, C. O., 5758  
Caulton, M., 5579  
Chin, T. N., 5604  
Cody, G. D., 5541  
Coleman, J. W., 5727  
Colilla, R. A., 5532  
Conner, C. L., 5619  
Cooperman, M., 5681  
Cullen, G. W., 5558

## D

Daskam, S. W., 5547  
Davidson, J. J., 5671  
Day, W. S., 5739  
Dean, J. A., 5611  
Dennen, W. B., 5857  
De Sobrino, R., 5783  
Dimmick, G. L., 5640  
Dismukes, J. P., 5541  
DiStefano, R., Jr., 5774  
Dobson, D. B., 5536  
Dreeben, A. B., 5794  
Dresner, J., 5722  
Dujack, R. L., 5576  
Duncan, R. C., Jr., 5545, 5685, 5686,  
5690, 5729

## E

Eckhardt, G., 5589, 5634  
Eckhardt, W., 5555  
Eichenbaum, A. L., 5696, 5763  
Eimbinder, J., 5700  
Ekstrom, L., 5614  
Englund, J. W., 5723, 5808

## F

Fanucci, J. B., 5839  
Farkas, L., 5841, 5842  
Fatuzzo, E., 5543, 5607, 5706, 5732,  
5777, 5778  
Faughnan, B. W., 5807  
Ficcki, R. F., 5549

Filipczak, J. M., 5580, 5721, 5823  
 Fine, T. L., 5606  
 Fischer, A. G., 5689  
 Fisher, J. B., 5597  
 Fleri, D., 5674  
 Flicker, H., 5833  
 Flory, L. E., 5758  
 Forman, J. M., 5767  
 Foss, M. E., 5704  
 Freedman, L. A., 5615  
 Fuselier, C., 5669

## G

Gaylord, J. W., 5726  
 Gerjuoy, E., 5775  
 Gerlich, D., 5558, 5630  
 Gerritsen, H. J., 5535, 5601, 5610  
 Giaino, E. C., 5594  
 Gibbons, L. H., Jr., 5817  
 Gibson, J. J., 5816  
 Gipp, D. R., 5705  
 Gittleman, J. I., 5795  
 Glazer, B. G., 5572  
 Gleib, A. E., 5797  
 Glenn, A. B., 5578, 5852, 5853  
 Glicksman, M., 5600  
 Glicksman, R., 5642  
 Gobat, A. R., 5530  
 Goldstein, B., 5812  
 Gordon, I., 5687  
 Granger, C., 5669  
 Gray, G. W., 5758  
 Greenaway, D. L., 5564, 5724, 5749  
 Greene, I., 5641  
 Greenman, C. V., 5735  
 Greig, H. G., 5765

## H

Hammer, J. M., 5763  
 Hanchett, G. D., 5560, 5850  
 Handelsman, M., 5838  
 Hannan, W. J., 5856  
 Harbeke, G., 5562, 5777  
 Harrison, S. E., 5622  
 Harvey, R. L., 5687  
 Hathaway, J. L., 5846  
 Hendel, H. W., 5567  
 Henderson, W. G., 5650  
 Hermann, F. J., 5741  
 Hernqvist, K. G., 5639  
 Hershenov, B., 5579  
 Herzog, G. B., 5701  
 Hicks, C. W., 5632  
 Hillier, J., 5533, 5638  
 Hirsch, C. J., 5788, 5822  
 Honig, R. E., 5828  
 Hook, H. O., 5834  
 Hurst, R. N., 5810  
 Hyman, H. M., 5743

## J

Janes, T. A., 5688

Johnson, F. M., 5626, 5772  
 Jones, D. M., 5792, 5837

## K

Kaiser, M. L., 5618  
 Kanter, I., 5843  
 Katz, N. E., 5730  
 Kaufman, H., 5714  
 Kaufman, M. M., 5559  
 Keller, E. W., 5588, 5855  
 Kern, W., 5736  
 Kessler, J. O., 5609  
 Kestigian, M., 5801  
 Kijewski, L. J., 5839  
 Kinsel, T. S., 5552  
 Kirkland, R. H., Jr., 5678  
 Kiss, M. J., 5799  
 Kiss, Z. J., 5685, 5686, 5690, 5729, 5748  
 Klapper, J., 5565, 5613, 5708  
 Kolarcik, J. J., 5753  
 Kolk, P. E., 5551, 5824  
 Koontz, R. F., 5849  
 Korff, M., 5787  
 Korman, N. I., 5655  
 Kressel, H., 5817, 5819  
 Krevsky, S., 5648  
 Kudman, I., 5566  
 Kuehne, J. E., 5784, 5798  
 Kurzrok, R. M., 5548, 5574, 5586, 5605,  
 5635, 5670, 5674, 5707, 5738, 5744,  
 5756, 5781

## L

Lamorte, M. F., 5530, 5731  
 Lampert, M. A., 5540, 5733  
 Laport, E. A., 5649  
 Lappin, L. S., 5647  
 Lawson, J. Q., 5739  
 Leck, G. W., 5694  
 Lederhandler, S. R., 5634  
 Lee, H. C., 5802  
 Lempner, J., 5750  
 Levin, M. J., 5606  
 Levy, D. T., 5645  
 Levy, S., 5858  
 Lewin, M. H., 5691  
 Li, K., 5581  
 Lieber, R., 5862  
 Lieberman, G., 5578, 5757, 5852, 5853  
 Liebman, A. M., 5759  
 Lind, A. H., 5815  
 Lind, E. L., 5794, 5814  
 Lochinger, R., 5821  
 Loferski, J. J., 5833  
 Longobucco, R. J., 5692, 5703, 5746,  
 5754, 5769, 5861  
 Lowe, M. H., 5787  
 Lozier, G. S., 5534, 5734, 5737  
 Luck, D. G. C., 5851  
 Luksch, J. A., 5684  
 Luther, A. C., 5810  
 Lysobey, M., 5620

## M

MacDonald, H. E., 5709, 5829, 5830  
 Maile, D. W., 5767  
 Marcus, S. M., 5584  
 Margerum, E. A., 5679  
 Mark, J. T., 5650  
 Martin, T., 5845  
 Martin, T. B., 5550  
 Mason, A. S., 5689  
 Matheson, R. M., 5695  
 Mathwich, H. R., 5593  
 McAllister, N. F., 5710  
 McClure, D. S., 5537, 5666  
 McElwee, E. M., 5633  
 McIver, G. W., 5530  
 McMurrough, R., 5779  
 Mehuron, W. O., 5612  
 Meltzer, G., 5786  
 Mendelson, R. M., 5556, 5711  
 Merz, W. J., 5777  
 Meyer, C. A., 5854  
 Meyerhofer, D., 5665  
 Michel, R. E., 5813  
 Miiller, H. S., 5553, 5820  
 Miller, G. F., 5839  
 Mintzer, A. I., 5796  
 Mirsky, R., 5844  
 Moore, A. R., 5609  
 Morey, R. E., 5758  
 Morton, G. A., 5644, 5646  
 Mullen, J. W., 5631

## N

Natapoff, M., 5768  
 Nelson, T., 5821  
 Neuhauser, R. G., 5603, 5784, 5798  
 Newton, A., 5613, 5738  
 Nitsche, R., 5543, 5777  
 Novak, G., 5779

## O

Olson, H. F., 5539, 5557, 5643, 5651,  
 5783

## P

Pankove, J. I., 5659, 5720, 5762, 5793  
 Parmenter, R. H., 5764  
 Paschke, F., 5579, 5760  
 Paschon, H. E., 5575  
 Pearl, J., 5782  
 Peckover, P. A., 5825  
 Perry, R. P., 5710  
 Pettai, R., 5570  
 Pettengill, G. W., 5818  
 Pike, W. S., 5758  
 Pirkle, J., 5773  
 Plus, L., 5803, 5808  
 Potter, N. S., 5847, 5863  
 Powlus, R. A., 5820  
 Presser, A., 5595  
 Putzrath, F., 5845

## Q

Quinn, J. J., 5668, 5752, 5831, 5832

## R

Raag, V., 5677  
 Rabinovici, B., 5565, 5613, 5616, 5617,  
 5708, 5712, 5827  
 Rajchman, J. A., 5676  
 Ramberg, E. G., 5629  
 Rauscher, D., 5569  
 Reboul, T. T., 5567, 5719  
 Reed, R. E., 5790  
 Reich, A., 5835  
 Renton, C. A., 5616, 5712  
 Rettinger, M., 5745  
 Roberts, G. E., 5714  
 Robinson, G. A., 5680, 5682, 5683, 5798  
 Rodriguez, S., 5752, 5831, 5832  
 Roetschi, H., 5543, 5607, 5777  
 Rogers, E. S., 5718  
 Rosenblum, B., 5545, 5813  
 Roth, E. A., 5679  
 Roth, S. H., 5688  
 Roy, J. W. V., 5766  
 Roys, H. E., 5653  
 Ruppel, W., 5777  
 Ryan, R., 5734

## S

Sabisky, E. S., 5601, 5610  
 Sable, J. D., 5538  
 Sadashige, K., 5697  
 Sams, B. H., 5532  
 Sank, J. R., 5657  
 Santilli, R. A., 5728  
 Schade, O. H., Sr., 5675  
 Schiller, J. M., 5531  
 Schindler, M. J., 5826  
 Schnapf, A., 5699  
 Schrader, E. R., 5672  
 Schroeder, A. C., 5662, 5785  
 Schulbach, A., 5664  
 Scott-Monck, J., 5833  
 Seidel, T. E., 5552, 5566, 5725  
 Shahbender, R., 5821  
 Shallcross, F. V., 5722  
 Sharenson, S., 5755  
 Shay, H. L., 5805  
 Shucker, S., 5859, 5862  
 Siekanowicz, W. W., 5573  
 Simon, R. E., 5811  
 Slusarek, Z. M., 5582  
 Smith, R. W., 5747  
 Sommers, H. S., 5665  
 Spicer, W. E., 5563, 5811  
 Stachejko, V., 5684  
 Sterzer, F., 5555, 5595, 5761, 5771  
 Struck, C. W., 5598  
 Sublette, I. H., 5571  
 Swartz, G. A., 5719

## T

Thanos, H., 5728, 5803  
 Theriault, G. E., 5715  
 Tiger, B., 5848  
 Troiano, A., 5547, 5597  
 Tults, J., 5571

Tunis, A. C., 5790  
 Tuska, J. W., 5587

## U

Uhler, E. F., 5737  
 Ur, H., 5681

## V

Van Ormer, D. D., 5693  
 Veloric, H. S., 5569, 5819  
 Vieland, L. J., 5673, 5725  
 Vine, B. H., 5798  
 Von Urff, C. A., 5770

## W

Wadden, W. R., 5837  
 Valentine, J., 5821  
 Wallmark, J. T., 5584  
 Weakliem, H. A., 5537, 5623  
 Webb, P. P., 5592, 5702  
 Weimer, P. K., 5698  
 Weinstein, H., 5713, 5834  
 Weisberg, L. R., 5614, 5627, 5776  
 Weisman, S., 5848  
 Wentworth, J. W., 5654  
 Wheatley, C. F., 5723  
 White, J. G., 5598

Wilcox, R. B., 5568  
 Willey, J. R., 5652  
 Williams, R., 5561, 5621, 5667  
 Williams, R. C., 5660  
 Williams, R. L., 5592, 5702, 5800  
 Wilmotte, R. W., 5789  
 Winder, R. O., 5553  
 Winkler, M. R., 5836  
 Wittke, J. P., 5717, 5729  
 Wittlinger, H. A., 5611, 5704  
 Wojtowicz, P. J., 5583, 5585  
 Wolff, I., 5658  
 Wolff, L. L., 5536

## Y

Yao, Y. L., 5663  
 Yingsst, T. E., 5542

## Z

Zappacosta, A. D., 5599  
 Zappulla, L. M., 5546  
 Zelby, L. W., 5780, 5791  
 Zingg, S., 5543  
 Zonis, F. I., 5770  
 Zuk, B., 5716  
 Zworykin, V. K., 5554, 5637

# SUBJECT INDEX

Numbers refer to Chronological Index

## A

Absorption Edge: 5566  
Accordion Communications System:  
5708  
A-C Generator: 5839  
Acoustical Patterns: 5845  
Adiabatic Acceleration: 5567  
Air Bearing: 5626  
Alloy Transistors: 5652  
Alpha-Cutoff Test: 5750  
Amateur Radio  
  *Converter*: 5721, 5823  
  *50-Mc Transmitter*: 5850  
  *5-Watt Transmitter*: 5580  
  *Six Meters*: 5547  
  *Sweep-Tube Modulators*: 5560  
  *Transistor Types for*: 5596  
  *Two Meters*: 5556  
Amplifier Tubes (UHF): 5790  
Amplifiers  
  *Broad band UHF*: 5674  
  *Parametric*: 5570, 5607, 5684, 5781  
  *Tunnel-Diode*: 5548, 5605, 5674, 5738  
  *UHF Tubes*: 5790  
  *Video Distribution*: 5809  
AM/FM Receivers: 5728, 5803  
AM Transmitter: 5647, 5730  
Analog/Digital Converter: 5624, 5669,  
5751  
Anamolous Mobility: 5627  
Antennas: 5578, 5628, 5636  
SbSI: 5777  
As-Doped Ge: 5659  
As-S-Br Glass: 5689  
Atlantic Missile Range: 5797  
Atomic Helium: 5776  
Attitude Determination: 5835  
Autodyne Converter: 5803  
Automobile Receivers: 5728  
Average vs. RMS Meters: 5671

## B

Backscattering: 5590  
Balanced Pair TD: 5701, 5816, 5820  
Ballistic Camera System: 5797  
Band-Pass Filters: 5574, 5586, 5635,  
5756  
Band Structure: 5563  
Barium Titanate: 5732  
Base-Layer Design: 5569  
Batteries: 5534, 5734  
Beam Deflection: 5629  
Beam Focusing: 5573

Beat Frequency Bridge: 5630  
Beta Eucryptite: 5772  
Binary Adder: 5616  
Block Codes: 5792  
Breakdown Voltage: 5817  
Broadcast (see also TV)  
  *AM Transmitter*: 5647, 5730  
  *Multiplex Monitor*: 5805  
  *Satellite (TV)*: 5655  
  *Shortwave*: 5739  
  *Tape Recorder*: 5626, 5810  
  *Turntables*: 5657  
Burst-Error Correcting: 5602  
Business Radio Service: 5818  
Butler Array: 5799

## C

Cadmium Sulfide  
  *Crystals*: 5794  
  *Dielectric Breakdown*: 5561  
  *Films*: 5722  
  *Photoconductivity*: 5814  
CaF<sub>2</sub>: 5748  
Camera Tubes: 5697  
Carbon Film Nets: 5740  
Cathode, Hollow: 5696  
Cathode Sublimation: 5677  
Ceramic Materials: 5754  
Cerenkov Radiation: 5780, 5794  
CsAu: 5563  
Character Recognition: 5571, 5856  
Chirp Signals: 5836  
Circuits (See type of circuit, also TV,  
  Transistors and Tunnel Diodes)  
Coaxial Lines: 5582  
Co<sup>2+</sup>: 5623  
COBOL: 5625, 5631, 5632, 5641  
Codes: 5602, 5792  
Coincident-Current Memory: 5663  
Communications (Systems)  
  *Business Service*: 5818  
  *Burst Error*: 5602  
  *Chirp Signals*: 5836  
  *Codes*: 5792, 5837  
  *Communication Net*: 5576  
  *Computer Simulation*: 5576  
  *Fading*: 5578, 5757, 5852, 5853  
  *Jamming*: 5578, 5852, 5853  
  *Optical Band*: 5851 (see also Lasers)  
  *Phase Modulation*: 5572  
  *Relay*: 5688, 5789  
  *Space*: 5593, 5838, 5842, 5863  
  *Technology*: 5588, 5855

## Computers

*Balanced Pair*: 5701, 5816, 5820  
*Binary Adders*: 5616  
*COBOL*: 5625, 5631, 5632, 5641  
*Digital Circuits*: 5712  
*Information Processing*: 5532, 5338, 5691, 5837  
*Logic Circuits*: 5681, 5716, 5816, 5820  
*Majority Logic*: 5553  
*Memories*: 5559, 5587, 5663, 5676, 5691, 5821  
*Radar*: 5776  
*Rectifier Gates*: 5858  
*Redundancy*: 5858  
*Shift Registers*: 5617  
*Simulation*: 5576, 5675  
*Social Sciences*: 5658  
*Switching Networks*: 5858

Conduction Cooling: 5726

Constant Channel Flow: 5839

Content-Addressed Memory: 5691

## Converters

*Autodyne*: 5803  
*Digital Pulse*: 5751  
*Nuistor*: 5721, 5823  
*Tunnel-Diode*: 5595

Cu<sup>2+</sup>: 5623

Correlation Function: 5714

Corrundum: 5666

Cost Control: 5860

Cross Modulation: 5715

Crystal Oscillator: 5620

## Crystallography

*CdS*: 5794  
*GaAs*: 5589, 5614  
*Ge*: 5786  
*Grey Tin*: 5564  
*Growth*: 5801  
*Impurity Sites*: 5537  
*KBaPO<sub>4</sub>*: 5598  
*Phthalocyanine*: 5622  
*Silicon*: 5634  
*Tetrahedral Sites*: 5623

CsAu: 5563

Cu<sup>2+</sup>: 5623

Cyclotron Resonance (in Ge): 5545

## D

DAMP: 5841

Damper Diode: 5704

Decade Counter: 5827

Deflection Tubes: 5611

Degenerate Ge: 5659, 5665

Demodulator: 5808

Design Techniques: 5670

Detector: 5711

Dielectrics: 5531, 5561, 5610

Diffused Junction Detectors: 5702

Digital Circuits: 5712

Digital Computer Program: 5576

Digital Feature Detection: 5571

Digital Modulation: 5572

Digital Systems: 5852, 5853

Diode Recovery Time: 5705

Dislocation Densities: 5634

Dispersed Pulse: 5849

Dispersion Relations: 5775

Divalent Thulium: 5748

Dye-Sensitized Layers: 5594

## E

Electrochemistry: 5642

Electrofax\*: 5594

Electroluminescent Cells: 5604

Electron Beams: 5573, 5579

Electronics: 5638

Electron Microscope: 5727, 5741

Electron Scattering: 5775

Electron Tubes

*Beam Deflection*: 5629

*Cathodes*: 5677

*Damper Diodes*: 5704

*Deflection*: 5611

*Microwave*: 5760

*Modulators*: 5542

*Operation*: 5768

*Power*: 5580, 5726

*Receiving*: 5672

*Shadow Mask*: 5693

*Sweep Tube*: 5560

*TWT's*: 5573, 5763, 5779

*UHF Amplifier*: 5790

Electrostatic Focusing: 5573

Elements: 5828

Emission Spectrometry: 5692, 5759

Energy Conversion: 5639

Engineers: 5804, 5857

Environmental Testing: 5678

Ethylation: 5558

Evaporation Masks: 5694

Excited Electrons: 5668

Excitons: 5562

Extreme Value Theory: 5606

## F

Fading: 5757, 5852, 5853

Failure Rates: 5844

Fault Isolation: 5710

Ferrimagnetic Anisotropy: 5585

Ferrite Cores: 5581

Ferrite Memory: 5821

Ferrite Phase Shifter: 5826

## Ferroelectrics

*Parametric Amplifier*: 5607

*SbSI*: 5777

*Switching Transients*: 5778

*Tetramethylammonium*: 5543

Field-Effect Transistors: 5550

Film Recording: 5640

Filters: 5574, 5586, 5635, 5707, 5756

5-Watt Transmitter: 5580

Flat-Display TV: 5706

Fluorescence: 5717

Flux Reversal: 5581

Flying-Spot Scanning: 5680

\* Trade mark



FM Multiplex Monitor: 5805  
 FM Stereo: 5806, 5808  
 432-Mc Transmitter: 5580  
 Frequency Converter: 5595  
 Frequency Multiplier: 5802  
 Furnaces: 5801

## G

Gallium Arsenide  
*Absorption Edge*: 5566  
*Breakdown Voltage*: 5817  
*Contamination*: 5736  
*Crystals*: 5589, 5614, 5776  
*Ge*: 5725  
*Heat Treatment*: 5552  
*Lattice Defects*: 5776  
*Manganese*: 5673, 5812  
*Photo-Hall Effect*: 5829, 5830  
*Photon Emission*: 5793  
*Reflectivity*: 5749  
*Single Crystals*: 5589  
*Solar Cells*: 5530, 5731  
*Tin*: 5667  
 Garnets: 5583  
 Glass (As-S-Br): 5689  
 Gold Alloys: 5743  
 Goto Circuit: 5624  
 Grey Tin: 5564

## H

Hall Effect: 5622  
 Ham (see Amateur Radio)  
 Harmonic Generators: 5802  
 Headwheel Panels: 5626  
 Health Care: 5637  
 Heat Transfer: 5582  
 Heterodyne Receivers (Light): 5761  
 Hexagonal Magnetic Oxides: 5687  
 HF Prediction: 5648  
 Highway Vehicle Control: 5758  
 Hollow Cathode: 5696  
 Hybrid-Coupled Amplifier: 5548, 5605  
 Hybrid Rings: 5670

## I

Iconoscope: 5682  
 Image Orthicon: 5603  
 Image Processing: 5834  
 InSb: 5724  
 InSb-In<sub>2</sub>Te<sub>3</sub>: 5724  
 InAs: 5724  
 InAs-In<sub>2</sub>Te<sub>3</sub>: 5724  
 In<sub>2</sub>Te<sub>3</sub>: 5724  
 Industrial Organizations: 5568  
 Information Processing: 5532, 5538  
 Information Services: 5533  
 Injection Currents: 5733  
 Insulators: 5540, 5627, 5733  
 Interleaved Sound: 5846  
 Interstage Coupling: 5574  
 Ion Emitter: 5772  
 Ion Model: 5585

## J

Jamming: 5578, 5852, 5853

Junction Transistors: 5824

## K

Kapitza Resistance: 5795  
 Knife-Edge Diffraction: 5577  
 KBaPO<sub>4</sub>: 5598

## L

L Absorption Edge: 5562  
 Landau Damping: 5529, 5608  
 Large Signal Field Effect: 5630

## Lasers

*CaF<sub>2</sub>:Dy<sup>2+</sup>*: 5690  
*CaF<sub>2</sub>:Tm<sup>2+</sup>*: 5685  
*CaWO<sub>4</sub>:Er<sup>3+</sup>*: 5686  
*Devices*: 5532  
*Modes*: 5729  
*Modulation*: 5720  
*Quantum Effects*: 5660  
*Receivers*: 5762  
*Ruby*: 5717  
 Lattice Defects: 5776  
 Pb<sub>2</sub>: 5621  
 Light Modulation: 5720, 5762  
 Light Velocity: 5785  
 Limiter Chain (TWT's): 5779  
 Limiting Current Effects: 5763  
 Linear Butler Array: 5799  
 Logic Circuits: 5681, 5716, 5816, 5820  
 Lorentz Transformations: 5791  
 Loudspeakers: 5643  
 Low-Pass Filters: 5707  
 LuIG: 5583

## M

Magnesium Primary Cells: 5734  
 Magnetic Oxide: 5687  
 Magneto-Ionic Duct: 5735  
 Magnetoplasma Resonance: 5813  
 Majority Logic: 5553  
 Management: 5766, 5804, 5857  
 Manganese: 5673  
 Manganese in GaAs: 5812  
 Masers (also see Lasers): 5535  
 Medical Electronics: 5554, 5637  
 Memories: 5559, 5587, 5691  
 HgI<sub>2</sub>: 5621  
 Metals: 5668  
 Microelectronics: 5584  
 Microminiature Oscillators: 5620  
 Micromodules: 5645, 5774  
 Microphones: 5718  
 Microphone, Condenser: 5745  
 Microwave Amplifiers: 5555  
 Microwave Tubes: 5760  
 Missile Range: 5797  
 Mixers: 5613  
 Mobile Communication: 5708  
 Modulation Distortion: 5715  
 Modulated Light Beams: 5761  
 Modulators: 5560  
 Modulator Tubes: 5542  
 Modules: 5620

Monopulse Radar: 5755, 5787  
 Monoscope: 5683  
 Multiplex Demodulator: 5808  
 Multiplex Monitor: 5805

## N

Navigation: 5841, 5843  
 Negative-Resistance Devices: 5712  
 Neuron Nets: 5845  
 Neutron Activation: 5736  
 Ni<sup>2+</sup> and Ni<sup>3+</sup>: 5601, 5623  
 Noise: 5671  
 Noise Patterns: 5663  
 Nomographs: 5593, 5704  
 Nondirectional Stereo: 5822  
 Nonlinear Devices: 5714  
 Nonlinear Distortion: 5738  
 Nonlinear Optical Effects: 5544  
 Nuclear Particle Detector: 5592  
 Nuclear Radiation: 5646  
 Navistor Circuits: 5556, 5711, 5721, 5823

## O

1-Kw AM Transmitter: 5647  
 Optical Band Radio: 5851  
 Optical Effects: 5544  
 Optical Emission: 5660  
 Optical Masers (see Lasers)  
 Optical Panels: 5834  
 Optical Spectra: 5537, 5623, 5666  
 Orbital Tracking: 5862  
 Organic Compounds: 5642  
 Organic Dielectrics: 5531  
 Organic Photoconductor: 5765  
 Organizational Systems: 5568  
 Orthogonal Signals: 5757  
 Oscillators: 5620, 5771

## P

Packing Density: 5584  
 Parabolic Group Delay: 5744  
 Paramagnetic Resonance: 5601, 5812  
 Parametric Amplifiers: 5570, 5607, 5684, 5781  
 Percentage: 5649  
 Performance Degradation: 5848  
 Permalloy Sheet Memory: 5587  
 Phase Modulation: 5572  
 Phase-Shifter Measurement: 5826  
 Photochemical Retina: 5662  
 Photoconductivity in CdS: 5814  
 Photoconductors: 5709, 5765  
 Photo Devices: 5629, 5800  
 Photoemission: 5563  
 Photoemission of Holes: 5667  
 Photoemission, Silicon: 5811  
 Photo-Hall Effects: 5709, 5829, 5830  
 Photomagnetic Susceptibility: 5609  
 Photomultipliers: 5695  
 Photon Emission: 5793  
 Photovoltaic Cells: 5807  
 Phthalocyanine: 5622

Pickup Cartridge: 5657  
 Piezoelectric Semiconductors: 5747  
 Plasma Acceleration: 5719  
 Plasma in Ge: 5813  
 Plasma, Quantum: 5831  
 Plasmas: 5567, 5600  
 Plate Dissipation: 5704  
 Plated Wires: 5703  
 Plate Thickness: 5746  
 KBaPO<sub>4</sub>: 5598  
 Power Pentode: 5580  
 Power Transistors: 5723  
 Power Tubes: 5726  
 Printing: 5594  
 Printout System: 5557  
 Probability: 5606, 5710  
 Processing Sound: 5651  
 Product Detector: 5711  
 Product Improvement: 5575  
 Program Production: 5654  
 Propagation: 5577, 5578, 5636, 5735  
 Pulse Transmitter: 5849  
 Pyrimidine Compounds: 5642

## Q

Quadrature Reception: 5757  
 Quantizer: 5753  
 Quantum Effects: 5832  
 Quantum Mechanics: 5660  
 Quantum Plasma: 5831

## R

Radar: 5835, 5859  
 Radar Accuracy: 5755  
 Radar Data Handling: 5787, 5796  
 Radar Measurement: 5590  
 Radiation Damage: 5833  
 Radiation Defect Rates: 5833  
 Radiation Detectors: 5646  
 Radiation Effect in Si: 5807  
 RC Networks: 5782  
 Reaction Rate: 5672  
 Reading Machine: 5856  
 Receiving Tube Life: 5672  
 Receiving Tube Operation: 5678  
 Rechargeable Systems: 5737  
 Rectification: 5722  
 Rectifier Circuits: 5551  
 Rectifier Gates: 5858  
 Reflectivity: 5564, 5724, 5749  
 Relay Satellite: 5688, 5789  
 Relays: 5536  
 Reliability: 5645, 5652, 5723, 5844, 5858  
 Reports: 5860  
 Retrieval of Ordered Lists: 5691  
 Reverse Primary Emission: 5767  
 RF Field Gradient: 5719  
 RF Interference: 5549, 5840  
 RF Levitation: 5679  
 RF Modulated Light Beams: 5761  
 RF Transistors: 5715  
 Rise Time: 5824

Ruby: 5717  
Rutile: 5601, 5610, 5612

## S

Sample Holder: 5861

## Satellites

*Detection*: 5847  
*Navigation*: 5841, 5843  
*Relay*: 5688, 5789  
*Service*: 5591  
*Television Broadcast*: 5655  
*Tiros*: 5699  
*Tracking*: 5842, 5859, 5862  
SbSI: 5777  
Scintillation Counting: 5695  
Semantic Structure: 5538  
Semiconductor Devices: 5584  
Semiconductor Plasmas: 5600  
Semiconductors: 5627, 5747  
Sequential Decoding: 5837  
Shadow-Mask Tube: 5693  
Shift Registers: 5617  
Shortwave Transmitter: 5739  
Silicon: 5679  
Silicon Band Structure: 5811  
Silicon Crystals: 5634  
Silicon-Germanium: 5541  
Silicon Particle Detector: 5592  
Silicon Photodiodes: 5800  
Silicon Photovoltaic Cells: 5807  
Silicon, Radiation Defect: 5833  
Silicon Transistors: 5819  
Single Crystals: 5589  
SSB System: 5770  
Six-Meter Receiver: 5547  
Social Sciences: 5658  
Solar Cells: 5530, 5731  
Solid-State Panels: 5706  
Sound: 5651  
Sound in Metals: 5752  
Sound (TV): 5846  
Space-Charge Currents: 5656, 5722  
Space-Charge Waves: 5608  
Space Communications: 5593, 5838, 5863  
Spectral-Line Interference: 5769  
Spectrographic Analysis: 5743, 5759, 5769  
Spectrometry: 5594, 5692, 5703, 5861  
Speech: 5539, 5557  
Speech Processing: 5783  
Spherical Aberrations: 5713  
SSB System: 5770  
Stereo Broadcasting: 5653  
Stereo Effects: 5788, 5822  
Stereo, FM: 5806, 5808  
Stereo Records: 5653  
Superconductors: 5764  
Super Power Tubes: 5790  
Surge Voltage Transients: 5551  
Sweep-Tube Modulator: 5560  
Switching Analysis: 5701  
Switching Circuits: 5536

Switching Networks: 5858  
Switching Transient: 5778  
Switching Transistors: 5819

## T

Tape Flutter: 5664  
Tape Recorders (TV): 5626, 5810, 5815  
Teaching: 5641  
Technical Papers: 5854  
Television  
*Camera Tubes*: 5697, 5773, 5784, 5798  
*Deflection Tubes*: 5611  
*Interleaved Sound*: 5846  
*Panel Display*: 5706  
*Program Production*: 5654  
*Satellite Broadcast*: 5655  
*Shadow-Mask Tube*: 5693  
*Tape Recorders*: 5626, 5810, 5815  
*UHF Transmitter*: 5618  
*Vertical Deflection*: 5615  
*Video Tape*: 5742  
*Video Distribution*: 5809  
*Vidicon*: 5773, 5784, 5798  
Temperature Dependence: 5709  
Tetramethylammonium-Trihalo-  
Mercurate: 5543  
Thermoelectrics: 5541  
Thermometer (TD): 5661  
Thin-Film Transistor: 5698  
Thulium: 5748  
Tin: 5667  
Tiros I, II, III: 5699  
TiO<sub>2</sub>: 5601, 5610, 5612  
Tracking Satellites: 5842, 5859, 5862  
Transfluxor Array: 5587  
Transfluxors: 5669  
Transformer Coupling: 5615  
Transformers: 5551  
Transistors  
*Alpha Cutoff*: 5750  
*Base-Layer Design*: 5569  
*Cutoff Frequency*: 5597  
*Field-Effect*: 5550  
*Junction*: 5824  
*Junction-Case*: 5825  
*Mounting*: 5700  
*Power*: 5723  
*RF Distortion*: 5715  
*Reliability*: 5654  
*Switching*: 5819  
*Thin-Film*: 5698  
*TV Tape Recorder*: 5810, 5815  
*2N828*: 5716  
*Unipolar*: 5604  
*Vertical Deflection*: 5615  
*Video Distortion*: 5809  
Transition Metal: 5537  
Transmission Lines: 5628  
Transmission Programming: 5863

## Transmitters

AM: 4647, 5730

50-Mc: 5850

432-Mc: 5580

Pulse: 5849

Shortwave: 5739

Two-Meter: 5556

Trap Density Determination: 5656

Traveling-Wave Tubes: 5573, 5763,  
5779

Triglycine Sulfate: 5732

Triode Characteristics: 5675

## Tunnel Diodes

Amplifier: 5548, 5605, 5674, 5738

Balanced Pair: 5701, 5816, 5820

Binary Adder: 5616

Circuit Design: 5565

Decade Counter: 5827

Frequency Converter: 5595

Germanium: 5665

Goto Circuit: 5624

Logic Circuits: 5681, 5816, 5820

Memory: 5559

Microphone: 5718

Oscillator: 5771

Shift Register: 5617

Tester: 5546

Thermometer: 5661

UHF Mixer: 5613

Tunnel Rectifier: 5559

Turntables, Broadcast: 5657

Two-Meter Transmitter: 5556

2N828: 5716

## U

UHF Mixer: 5613

UHF TV Transmitter: 5618

UHF TD Amplifier: 5674

UHF Tubes: 5790

Ultrasonic Attenuation: 5832

Unipolar Transistors: 5604

## V

Vacuum Systems: 5650

Value Engineering: 5599

Value Theory: 5606

Vapor Pressure Data: 5828

Varactor Diodes: 5802

Varidirectional Microphone: 5745

Vehicle Control: 5758

Vehicular Communication: 5726

Velocity of Light: 5785

Velocity of Sound: 5752

Verneuil Crystal Growth: 5801

Vertical Deflection: 5615

Vibrating Reed Balance: 5609

Video Tape: 5742

Video Distribution Amplifier: 5809

Vidicons: 5773, 5784, 5798

Voltage Dividers: 5619

VSWR: 5586

## W

Wafer Modules: 5620

Waveguides: 5635, 5756, 5760

Whistler-Mode: 5735

Writing and Speech: 5633, 5854, 5860

## X

X-Band TWT Chain: 5779

X-Ray Spectrometry: 5692, 5703,  
5746, 5754, 5861

## Y

YIG: 5583

## Z

Zener Diodes: 5753

Zinc Blende: 5562

Zinc-Oxide-Resin Layers: 5594