

PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

Summer Course, University of Gent, Gent, Belgium

August 28-September 9, 1967

M. W. P. Strandberg, Paramagnetic Defects in Crystals (invited)

International Symposium on Beam-Plasma Interactions, Czechoslovak Academy of Sciences, Institute of Plasma Physics, Prague, Czechoslovakia

September 4-6, 1967

A. Bers, Theory of Beam-Plasma Interactions

Molecular Spectroscopy Symposium, The Ohio State University, Columbus, Ohio

September 5-9, 1967

T. G. Davis, N. E. Tornberg, and C. H. Perry, Infrared and Raman Spectra of Some Mixed Tantalate Perovskites

Jeanne H. Fertel, E. M. Immerman, and C. H. Perry, Phonons in the Mixed-Crystal System KCl-KBr

D. H. Muehler and C. H. Perry, Far Infrared Impurity-Induced Absorption in  $ABF_3$  Single Crystal

J. F. Parrish and C. H. Perry, Lattice Vibrations in  $CdS_xSe_{1-x}$  Mixed Crystals

American Physical Society Meeting on II-VI Semiconducting Compounds, Providence, Rhode Island

September 6-8, 1967

J. F. Parrish, C. H. Perry, O. Brafman, and S. S. Mitra, Phonons in Mixed Crystal System  $CdS_xSe_{1-x}$

International Conference on Future Goals for Engineering, Biology and Medicine, Washington, D.C.

September 8-9, 1967

W. S. McCulloch, Neurophysiology (invited)

Instrument Society of America, 22nd Annual International Conference and Exhibit, Chicago, Illinois

September 11-14, 1967

W. A. Rosenblith, Biomedical Instrumentation-Advances to Safeguard Man's Health (invited)

Summer Course, Istituto Superiore di Sanità, Rome, Italy

September 11-15, 1967

M. W. P. Strandberg, Introduction to Paramagnetic Resonance

IEEE International Symposium on Information Theory, San Remo, Italy

September 11-15, 1967

P. Elias, Bounds on Quantizer Performance

R. G. Gallager, A Coding Theorem for Discrete Time Channels with Memory

R. S. Kennedy and E. V. Hoversten, On the Reliability of the Atmosphere as an Optical Communication Channel

MEETING PAPERS PRESENTED (continued)

Second Materials Research Symposium, "Molecular Dynamics and Structure of Solids,"  
National Bureau of Standards, Gaithersburg, Maryland

October 16-19, 1967

T. G. Davis, N. E. Tornberg, C. H. Perry, and N. Knable, Optical Phonons  
in Mixed Sodium Potassium Tantalates

20th Annual Gaseous Electronics Conference, San Francisco, California

October 18-20, 1967

W. P. Allis, Exact Nonlinear Waves in a Collisionless Plasma

Association for Research in Ophthalmology, National Meeting, Chicago, Illinois

October 26-28, 1967

G. D. Bernard and W. H. Miller, Interference Filters in the Corneas of  
Diptera

The Psychonomic Society, Eighth Annual Scientific Meeting, Chicago, Illinois

October 26-28, 1967

P. A. Kolers, Visual Transformations as Base-Dependent Operations

1967 Thermionic Conversion Specialist Conference, NASA Ames Research Center,  
Palo Alto, California

October 30-November 2, 1967

R. E. Stickney, W. Greaves, and D. L. Fehrs, Experimental Measurements  
of the Work Functions and Desorption Energies of the Systems O-W, O-Mo,  
O-Re, O-Ta, and Cs-O-Ta

Physics Colloquium, Northeastern University, Boston, Massachusetts

November 2, 1967

C. H. Perry, Optical Phonons in Ferroelectric Materials (invited)

20th Annual Northeast Electronics Research and Engineering Meeting of the IEEE,  
Boston, Massachusetts

November 3-5, 1967

A. H. Barrett, Advances in Spectral Line Radio Astronomy

R. W. Schafer, Echo Removal by Generalized Linear Filtering

H-m. D. Toong, Interpretation of Atmospheric Emission Spectra near 1-cm  
Wavelength

Conference on Speech Processing (sponsored by Air Force Cambridge Research  
Laboratories and IEEE), Cambridge, Massachusetts

November 6-9, 1967

K. N. Stevens, Acoustic Correlates of Certain Consonantal Features

Division of Plasma Physics, American Physical Society, Ninth Annual Meeting,  
Austin, Texas

November 8-11, 1967

A. Bers and S. L. Chou, Instabilities in Plasmas with Thin Electron Beams

MEETING PAPERS PRESENTED (continued)

J. A. Davis, Computer Simulation of Nonlinear Oscillations in a Beam-Plasma System

T. H. Dupree, Nonlinear Theory of Collisional Drift Waves

R. W. Flynn and T. H. Dupree, Nonlinear Diffusion Effects in Turbulent Plasmas

P. W. Jameson, Ion Cyclotron Resonance Experiment with an  $m=1$  Coil

R. R. Levin and N. L. Oleson, Ion Acoustic Wave Dispersion in a Highly Ionized Argon Plasma in a Magnetic Field

W. Manheimer, Bremsstrahlung at Harmonics of the Electron Plasma Frequency

R. R. Parker and J. A. Mangano, Propagation of Ion Cyclotron Waves in a Beam-Generated Plasma

D. Ross, K. Chung, and D. J. Rose, Decay Process in the Afterglow of Hollow Cathode Discharge Arc Plasma

Department of Engineering and Applied Science Seminar, Yale University, New Haven, Connecticut

November 13, 1967

R. J. Briggs, Critical Lengths for Absolute Instabilities (invited)

74th Meeting, Acoustical Society of America, Miami Beach, Florida

November 13-17, 1967

R. H. Katyl and U. Ingard, Light Scattering from Thermally Excited Surface Waves

N. Y. S. Kiang, E. M. Marr, and D. Demont, Sensitivity of Auditory-Nerve Fibers to Tonal Stimuli

D. H. Klatt, Psychophysical Reality of the Distinctive Features of Phonology

E. C. Moxon and N. Y. S. Kiang, Discharge Rates of Auditory-Nerve Fibers in Response to Electric and Acoustic Stimuli

G. von Bismarck and R. R. Pfeiffer, On the Sound-Pressure Transformation from Free Field to Eardrum of Chinchilla

Physics Colloquium, Tufts University, Medford, Massachusetts

November 17, 1967

C. H. Perry, Optical Phonons in Some Mixed Crystals (invited)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION

(Reprints, if available, may be obtained from the Document Room, 26-327, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139)

- R. J. Allen, A. H. Barrett, and P. P. Crowther, Observations of the Radio Sources 3C84, 3C273, 3C274, and 3C297 at Short Centimeter Wavelengths (Astrophys. J.)
- J. S. Barlow, Computer Analyses of Clinical Electroencephalographic Ink-Tracings with the Aid of a High-Speed Automatic Curve Reader (IEEE Trans. (BME))
- G. D. Bernard and W. H. Miller, Interference in the Corneas of Diptera (Investig. Ophthalmol.)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- M. Blum, On the Size of Machines (Inform. Contr.)
- J. E. Brown, J. R. Murray, and T. G. Smith, A Photoelectric Potential from Photoreceptor Cells in Ventral Eye of Limulus (Science)
- E. W. Browne, Serbo-Croatian Enclitics and Transformational Theory (Zbornik Matice Srpske za filologiju i lingvistiku (Novi Sad, Yugoslavia))
- R. W. Cornew, A Statistical Method of Spelling Corrections (Inform. Contr.)
- M. Halle and S. J. Keyser, Review of "John Hart's Works on English Orthography and Pronunciation, 1551, 1569, 1570 : Part II, Phonology," edited by Brjor Danielsson - pp. 294. Uppsala : Almqvist and Wiksell, 1963 (Language)
- B. Howland, Use of Crossed-Cylinder Lens in Photographic Lens Evaluation (Appl. Opt.)
- R. P. Kiparsky, Sonorant Clusters in Greek (Language)
- R. P. Kiparsky, Tense and Mood in Indo-European Syntax (Foundations of Language)
- R. P. Kiparsky, A propos de l'histoire de l'accentuation grecque (Langages)
- P. A. Kolars, Recognition of Geometrically Transformed Text (Perception and Psychophysics)
- P. A. Kolars, Bilingualism and Information Processing (Sci. American)
- P. A. Kolars, Review of Thinking : Studies of Covert Language Processes, edited by F. J. McGuigan (New York : Appleton-Century-Crofts, 1966) (Contemp. Psychol.)
- H. B. Lee, Matrix Filtering as an Aid to Numerical Integration (Proc. IEEE)
- W. B. Lenoir, Propagation of Partially Polarized Waves in a Slightly Anisotropic Medium (J. Appl. Phys.)
- W. B. Lenoir, Microwave Spectrum of Molecular Oxygen in the Mesosphere (J. Geophys. Res.)
- W. B. Lenoir, J. W. Barrett, and D. Cosmo Papa, Observations of Microwave Emission by Molecular Oxygen in the Stratosphere (J. Geophys. Res.)
- Paula Menyuk, The Role of Distinctive Features in Children's Acquisition of Phonology (J. Speech Hearing Res.)
- A. E. E. Rogers and A. H. Barrett, Excitation Temperature of the 18-cm Line of OH in HI Region (Astrophys. J.)
- M. B. Sachs and N. Y. S. Kiang, Two-Tone Inhibition in Auditory-Nerve Fibers (J. Acoust. Soc. Am.)
- A. Solbès and J. L. Kerrebrock, Condensation and Electrical Conduction in Metallic Vapors (Phys. Fluids)
- D. E. Troxel, Experiments in Tactile and Visual Reading (IEEE Trans. (HFE))

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

F. Y. F. Tse and S. C. Brown, Electron Density in a Beam-Generated Plasma (Phys. Fluids) *published?*

\*Barbara G. Wickelgren, Habituation of Spinal Interneurons (J. Neurophysiol.)

\*Barbara G. Wickelgren, Habituation of Spinal Motoneurons (J. Neurophysiol.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

° B. F. Burke and T. L. Wilson, The Flux of the Radio Source W49 at 7.83 GHz (Astrophys. J.)

°K. Chung and D. J. Rose, Correlation Study of a Drift Wave Instability (Appl. Phys.)

°L. D. Collins, Realizable Whitening Filters and State Variable Realizations (Proc. IEEE)

° M. S. Ewing, B. F. Burke, and D. H. Staelin, Cosmic Background Measurements at a Wavelength of 9.24 mm (Phys. Rev. Letters)

° S. Ezekiel and R. Weiss, Laser-Induced Fluorescence in a Molecular Beam of Iodine (Phys. Rev. Letters)

° D. O. Ham and J. L. Kinsey, Long-lived Complexes in Molecular Collisions (J. Chem. Phys.)

° U. Ingard and M. Schulz, Ion Density and Electric Field Perturbation Caused by an Acoustic Wave Pulse in a Weakly Ionized Gas (Phys. Fluids)

° N. Y. S. Kiang, M. B. Sachs, and W. T. Peake, Shapes of Tuning Curves for Single Auditory-Nerve Fibers (J. Acoust. Soc. Am.)

° S. G. Kukolich, Measurements of the 3-2 Inversion Frequency and Frequency Stability of a Two-Cavity Ammonia Maser (Proc. IEEE (Letter))

• D. E. Pritchard, D. C. Burnham, and D. Kleppner, Atomic Differential Spin-Exchange Scattering (Phys. Rev. Letters)

\* M. Schulz, Possibility of Radiation-Induced Sound Amplification in a Gas (Phys. Fluids)

• D. H. Staelin, N. E. Gaut, Sara E. Lax, and W. T. Sullivan III, Spectrum Measurements of the Sun Near 1-cm Wavelength (Solar Phys.)

TECHNICAL REPORTS PUBLISHED

(These and previously published technical reports, if available, may be obtained from the Document Room, 26-327, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139)

460 Peter Elias, Networks of Gaussian Channels with Applications to Feedback Systems

464 John S. Richters, Communication over Fading Dispersive Channels

SPECIAL TECHNICAL REPORTS PUBLISHED

(These monographs are available from The M.I.T. Press, E19-734B, Massachusetts Institute of Technology, Cambridge, Massachusetts 02142.)

Number 15 S.-Y. Kuroda, Yawelmani Phonology (M.I.T. Research Monograph No. 43)

SPECIAL PUBLICATIONS

- T. G. Davis, N. E. Tornberg, and C. H. Perry, Optical Phonons in Mixed Sodium Potassium Tantalates (Paper D8, NBS Research Monographs)
- J. Katzenelson, D. S. Evans, and H. B. Lee, A Program for On-line Analysis of Nonlinear Electronic Circuits (1967 IEEE International Convention Record)