# PUBLICATIONS AND REPORTS

#### MEETING PAPERS PRESENTED

NEREM-66, Boston, Massachusetts

November 2-4, 1966

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D. H. Staelin and E. C. Reifenstein, K-band Observations of Venus and Jupiter during 1966

1966 Fall URSI-IEEE Meeting, Palo Alto, California

December 6-9, 1966

S. Zisk, Maximum Information and Other Effects of Baseline Parameters on Interferometers Used for Radio Astronomy

Department of Electrical Engineering Colloquium, University of Notre Dame, Notre Dame, Indiana

December 9, 1966

A. Bers, Instabilities of Plasmas in Solids (invited)

Conference on Fundamentals of Gas-Surface Interactions, San Diego, California December 13-16, 1966

R. E. Stickney, R. M. Logan, S. Yamamoto, and J. C. Keck, Simple Classical Model for the Scattering of Gas Atoms from a Solid Surface: III. Analyses for Monoenergetic Beams and Lock-in Detector Signals

American Philosophical Society Meeting, Philadelphia, Pennsylvania December 21, 1966

S. Bromberger, Questions

41st Annual Meeting, Linguistic Society of America, New York December 28-30, 1966

C-W. Kim, On the Notion "Optimal Opposition"

Symposium on the Engineering Significance of the Biological Sciences, Carnegie Institute of Technology, Pittsburgh, Pennsylvania

January 25-27, 1967

W. A. Rosenblith, Communications Engineering Views the Brain: Anno 1967

International Symposium on Zodiacal Light and the Interplanetary Medium, Honolulu, Hawaii

January 29-February 3, 1967

G. Fiocco, Possibility of Continuously Measuring the Influx of Extraterrestrial Dust by Optical Radar (invited)

American Physical Society Meeting, New York

January 30-February 2, 1967

K. U. Ingard and M. Schulz, Role of Electrons and Ions in a Sound Wave in a Weakly Ionized Gas

### MEETING PAPERS PRESENTED (continued)

Third Annual Informal Conference on Active Microwave Effects in Bulk Semiconductors, IEEE Headquarters, New York

February 2-3, 1967

- G. Bekefi and A. Bers, Microwave Emission from n-Type Indium Antimonide at 4.2°K and 78°K
- R. N. Wallace and A. Bers, Microwave Emission from 'Contactless' Indium Antimonide Samples

1967 International Solid-State Circuits Conference, Philadelphia, Pennsylvania February 15-17, 1967

D. H. Steinbrecher, Efficiency Limits for Tuned Harmonic Multipliers with Punch-through Varactors

Colloquium, Rockefeller University, New York

February 16, 1967

W. A. Rosenblith, Computer Processing of Neuroelectric Data (invited)

Symposium "Psycholinguistic Insights into the Reading Process," New York February 16-18, 1967

P. A. Kolers, Linguistic Analysis of Reading Errors (invited)

Demonstration Lecture, Dartmouth College, Hanover, New Hampshire February 17, 1967

S. C. Brown, Computer-Aided Search for Scientific Literature (invited)

# JOURNAL PAPERS ACCEPTED FOR PUBLICATIONS

(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 and A. H. Barrett, Intensity and Linear Polarization Observations of Cassiopeia A, Cygnus A, and Taurus A at 1.97 cm (Abstract) (Astron. J.)
  - A. H. Barrett, Radio Observations of Interstellar OH (Science)
  - K. W. Gentle, Moving Striations in the Argon Positive Column I. Theory (Phys. Fluids)
  - K. W. Gentle, Moving Striations in the Argon Positive Column II. Experiments (Phys. Fluids)
  - R. D. Hall and R. G. Mark, Fear and the Modification of Acoustically Evoked Potentials during Conditioning (J. Neurophysiol.)
  - T. S. Huang and M. T. Chikhaoui, The Effect of BSC on PCM Picture Quality (IEEE Trans. (IT))
  - T. S. Huang, O. J. Tretiak, B. Prasada, and Y. Yamaguchi, Design Considerations in in PCM Transmission of Low-Resolution Monochrome Still Pictures (Proc. IEEE)
  - W-D. Heiss and D. C. Milne, Single Fibers of Cat Optic Nerve: Thresholds to Light (Science)

### JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- U. Ingard and H. Ising, Acoustic Nonlinearity of an Orifice (J. Acoust. Soc. Am.)
- U. Ingard and M. Schulz, The Acoustic Wave Mode in a Weakly Ionized Gas (Phys. Rev.)
- J. J. Katz, Some Remarks on Quine on Analyticity (J. Philos.)
- J. J. Katz, Recent Issues in Semantic Theory (Foundations of Language)
- J. P. Kimball, Predicates Definable over Transformational Derivations by Intersection with Regular Languages (Inform. Contr.)
  - S. G. Kukolich, Measurement of Ammonia Hyperfine Structure with a Two-Cavity Maser (Phys. Rev.)
  - S. G. Kukolich and K. W. Billman, Square-Wave Phase Modulation in Ramsey-type Molecular Beam Resonance Experiments (J. Appl. Phys.)
  - R. G. Mark and R. D. Hall, Acoustically Evoked Potentials in the Rat during Conditioning (J. Neurophysiol.)
  - A. Natapoff, The Consideration of Evolutionary Conservatism Toward a Theory of the Human Brain (Perspectives in Biology and Medicine)
  - R. A. Newmark, J. C. Stephenson, and J. S. Waugh, Proton Relaxation in Potassium-Ammonia Solutions (J. Chem. Phys.)
  - W. F. Schreiber, Picture Coding (Proc. IEEE)
  - M. Schulz and U. Ingard, Acoustic Kink Instability in an Argon Discharge (Phys. Fluids)
  - Shardanand and Y. Mikawa, Photon Scattering Cross Sections at Lyman-Alpha (1215. 7 Å) for He and Ne (J. Quant. Spectry. Radiat. Transfer.)

### LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- J. S. Barlow, Automatic Curve Reading by Phase-Modulated Analog Sampling (Proc. IEEE)
- R. A. Hoffman, Chemical Rate Processes and Magnetic Resonance Linewidths (J. Chem. Phys.)
- J. D. Macomber, N. S. Ham, and J. S. Waugh, Upper Limit to the Electric-Field Effect on the NMR Spectrum of Nitromethane (J. Chem. Phys.)
- J. M. Moran, B. F. Burke, B. Zuckerman, H. Penfield, and M. L. Meeks, Observations of OH Emission in the H II Region W3 with a 74,400λ Interferometer (Astrophys. J.)
- C. H. Perry and J. D. Wrigley, Jr., Infrared Reflectance and Optical Constants of Tektites (Appl. Opt.)
- J. A. Ross and U. Ingard, Generation of Vorticity by Waves in a Plasma (Phys. Fluids)
  - J. C. Woo and D. J. Rose, Generation of a Quiescent, Variable Parameter Arc Plasma (Phys. Fluids)

#### SPECIAL PUBLICATIONS

- W. H. Glenn, D. R. Whitehouse, and S. C. Brown, Ion-Cyclotron Oscillations in a Plasma (Proc. Seventh International Conference on Phenomena in Ionized Gases, Beograd, 22-27 August 1965, Vol. II, pp. 370-373)
- E. B. Hooper and G. Bekefi, Electron Density Measurements with a Laser Interferometer (Proc. Seventh International Conference on Phenomena in Ionized Gases, Beograd, 22-27 August 1965, Vol. III, pp. 209-213)
- W. S. McCulloch, Cybernetic Problems of Learning (Conditional Reflex, J. B. Lippincott Co., Philadelphia, 1967)
- D. H. Staelin and E. C. Reifenstein, K-band Observations of Venus and Jupiter during 1966 (NEREM Record 1966) (pp. 138-139)
- J. S. Waugh, Nuclear Relaxation in Liquids and Gases, in Proc. International Conference on Magnetic Resonance and Relaxation, XIVth Colloque Ampère (North-Holland Publishing Co., Amsterdam, The Netherlands, 1967)

# 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)