

# Papers by Bell Laboratories Authors

## CHEMISTRY

**Analysis of Phosphorus-Diffused Layers in Silicon.** R. B. Fay, *J. Electrochem. Soc.*, 125 (February 1978), pp. 323-327.

**Flameless Atomic Absorption Spectrometric Determination of Ultratrace Elements in Silicon Tetrachloride.** T. Y. Kometani, *Anal. Chem.*, 49, No. 14 (1977), pp. 2289-2291.

**Functional Group Analysis of Large Chemical Kinetic Systems.** T. E. Graedel, *J. Phys. Chem.*, 81 (1977), pp. 2372-2374.

**Intermediate Valence in  $\text{YbAl}_3$  and  $\text{EuCu}_2\text{Si}_2$  by X-Ray Photoemission (XPS).** K. H. J. Buschow, M. Campagna, and G. K. Wertheim. *Solid State Commun.*, 24 (1977), pp. 253-256.

**Investigation of the Ti-Pt Diffusion Barrier for Gold Beam Leads on Aluminum.** S. P. Murarka, H. J. Levinstein, I. Blech, T. T. Sheng and M. H. Read, *J. Electrochem. Soc.*, 125 (January 1978), pp. 156-162.

**Noble Gas Chemistry and the Fluoride Literature—What Influences Research Directions?** D. T. Hawkins and W. E. Falconer, *J. Chem. Inform. Comput. Sci.*, 17 (1977), pp. 219-220.

**Optical Absorption as a Control Test for Plasma Silicon Nitride Deposition.** M. J. Rand and D. R. Wonsidler. *J. Electrochem. Soc.*, 125 (January 1978), pp. 99-101.

**Picosecond Dynamics of Conformational Changes in 1,1' Binaphthyl Solutions.** C. V. Shank, E. p. Ippen, O. Teschke, and K. B. Eisenthal. *J. Chem. Phys.*, 67, No. 12 (December 15, 1977), pp. 5547-5551.

**Picosecond Dynamics of the Singlet Excited State of Trans and Cis-Stilbene.** O. Teschke, E. P. Ippen, and G. R. Holtom. *Chem. Phys. Lett.*, 52, No. 2 (December 1, 1977), pp. 233-235.

**Pulsed EPR Studies of Type I and Type II Copper of *Rhus Vernicifera* Laccase and Porcine Ceruloplasmin.** B. Mondovi, M. T. Graziani, W. B. Mims, R. Oltzik, and J. Peisach. *Biochem.*, 16 (1977), pp. 4198-4202.

**Si Molecular Beam Epitaxy ( $n$  on  $n^+$ ) with Wide Range Doping Control.** Y. Ota, *J. Electrochem. Soc.*, 124, No. 11 (November 1977), pp. 1795-1802.

**Synthesis and Structure of  $\text{BaPtO}_3$ .** P. K. Gallagher, D. W. Johnson, E. M. Vogel, G. K. Wertheim, and F. H. Schnettler. *J. Solid State Chem.*, 21 (1977) pp. 277-282.

## COMPUTING

**Book Review, "Queueing Systems, Vol. 2: Computer Applications" by L. Kleinrock.** D. P. Heyman, *Networks*, 7 (Fall 1977), pp. 285-286.

**Single Server Queues With Correlated Inputs.** B. Gopinath and J. A. Morrison, *Computer Performance*, K. M. Chandy and M. Reiser, Eds. *Proceedings of the International Symposium on Computer Performance Modeling, Measurement and Evaluation*, IBM Thomas J. Watson Research Center, New York, August 16-18, 1977, pp. 263-277.

## ELECTRICAL AND ELECTRONIC ENGINEERING

**Chevron Detector Design Study.** T. J. Nelson, *IEEE Trans. Magn.*, MAG-13 (November 1977), pp. 1773-1776.

**Contact Design Methodologies, Insulation Displacement Contacts for Multigauge Splicing Connectors.** W. E. Pugh, III, *Electrical Contacts—1977*, *Proceedings of the 23rd Annual Holm Conference on Electrical Contacts*, I (November 1977), pp. 135-140.

**Digital Coding of Color Video Signals—A Review.** J. O. Limb, C. B. Rubinstein, and J. E. Thompson, *IEEE Trans. Commun.*, COM-25 (November 1977), pp. 1349-1385.

**Digital Signal Processor Architecture.** S. K. Tewksbury, R. B. Kiebertz, J. S. Thompson, and S. P. Verma, *IEEE Commun. Soc. Mag.*, 16, No. 1 (January 1978) pp. 23-27.

**High Frequency Approximations For Surface Waves Propagating Along Cylinders of General Cross-Section.** J. A. Morrison, *Recent Advances in Engineering Science*, G. C. Sih, Ed., *Proceedings of the 14th Annual Meeting of the Society of Engineering Science, Inc.*, Nov. 14-16, Bethlehem, Pa. (1977) pp. 673-687.

**High-Field Electronic Conduction in Insulators.** K. K. Thornber, *Solid State Electron.*, 21 (1978), pp. 259-266.

- High Voltage Single-Ended DC/DC Converter.** R. P. Massey and E. C. Snyder, IEEE Power Electronics Specialists Conference (December 1977), pp. 156-159.
- MM-Wave PIN Switching Diode Fabrication Using Silicon Molecular Beam Epitaxy.** Y. Ota, W. L. Buchanan, and O. G. Peterson, Technical Digest of IEEE International Conference on Electron Devices, Washington D. C. December 1977, pp. 375-378.
- Multimicrophone Signal-Processing Technique to Remove Room Reverberation From Speech Signals.** J. B. Allen, D. A. Berkley, and J. Blauert, J. Acoust. Soc. Amer., 62 (October 1977), pp. 912-915.
- Multipath Delay Spread and Path Loss Correlation for 910 MHz Urban Mobile Radio Propagation.** D. C. Cox, IEEE Trans. Veh. Technol., 26 (November 1977), pp. 340-344.
- Multiple Reflection Corrections in Light-Scattering Experiments.** D. F. Nelson and P. D. Lazay, J. Opt. Soc. Am., 67 (November 1977), pp. 1599-1601.
- Nonionizing Radiations.** G. M. Wilkening, Encyclopedia of Environmental Science and Engineering, 2 (1977), pp. 612-623.
- Photons in Fibers for Telecommunications.** S. E. Miller, Science, 195 (March 18, 1977), pp. 1211-1216.
- Self-Contained Charge-Coupled Split-Electrode Filters Using Novel Sensing Technique.** C. H. Sequin, M. F. Tompsett, P. I. Suci, D. A. Sealer, P. M. Ryan, and E. J. Zimany, IEEE J. Solid State Circuits SC-12 (December 1977), pp. 626-632.
- Spectra of PSK Signals With Overlapping Baseband Pulses.** L. J. Greenstein, IEEE Trans. Commun., COM-25, No. 5 (May 1977), pp. 523-530.

## GENERAL MATHEMATICS AND STATISTICS

- Charge Singularity at the Corner of a Flat Plate.** J. A. Morrison and J. A. Lewis, SIAM J. Appl. Math., 31 (September 1976), pp. 233-250.
- Charge Singularity at the Vertex of a Slender Cone of General Cross-Section.** J. A. Morrison, SIAM J. Appl. Math., 33 (July 1977), pp. 127-132.
- Effective Versions of the Chebotary Density Theorem.** J. C. Lagarias and A. M. Odlyzko, Algebraic Number Fields (Proceedings of the 1975 Durham Symposium), A. Fröhlich, ed., London and New York: Academic Press, 1977, pp. 409-464.
- Scheduling Equal-Length Tasks under Tree-Like Precedence Constraints to Minimize Maximum Lateness.** P. Brocher, M. R. Garey, and D. S. Johnson, Mathematics of Operations Research, 2 (August 1977), pp. 275-284.

## MATERIALS SCIENCE

- Oxide Thickness Measurements Up to 120Å on Silicon and Aluminum Using the Chemically Shifted Auger Spectra.** C. C. Chang and D. M. Boulin, Surface Sci., 69 (1977), pp. 385-402.
- Reactive Ion Beam Sputtering of Thin Films of Lead, Zirconium and Titanium.** R. N. Castellano, Thin Solid Films, 46 (1977), pp. 213-221.
- Temperature Dependence of the Orthorhombicity of Gallium Metal.** W. H. Haemmerle and J. B. Lastovka, J. Appl. Crystallogr., 10 No. 3 (June 1977), pp. 180-183.
- A True Swap Gate for Magnetic Bubble Memory Chips.** P. I. Bonyhard, IEEE Trans. Magn., MAG-13 (November 1977), pp. 1785.
- X-Ray Fluorescence Analysis of Some Ferrite Compositions.** F. Schrey and P. K. Gallagher, Ceram. Soc. Bull., 56 (November 1977), pp. 981-983.

## MECHANICAL AND CIVIL ENGINEERING

- Guidelines for High-Reliability Applications of Integrated Circuits.** E. R. Schmid, Machine Design, 49 No. 19 (August 25, 1977) pp. 80-82.

## PHYSICS

- Core-Electron Line Shapes in X-Ray Photoemission Spectra from Semimetals and Semiconductors.** G. K. Wertheim and D. N. E. Buchanan, Phys. Rev. B, 16 (September 1977), pp. 2613-2617.
- Elastic Constants of hcp <sup>4</sup>He.** D. S. Greywall, Phys. Rev. B Comments & Addenda, 16 (December 1977), pp. 5127-5128.
- Getter-Sputtering at Low Temperature ( $\approx 20^\circ\text{K}$ ).** J. J. Hauser, Appl. Phys. Lett., 32, No. 3 (February 1, 1978), pp. 125-127.

- Group Velocity in Crystal Optics.** D. F. Nelson, *Amer. J. Phys.*, 45 (December 1977), pp. 1187-1190.
- The Oxidation of Ammonia, Hydrogen Sulfide, and Methane in Nonurban Tropospheres.** T. E. Graedel, *J. Geophys. Res.*, 82 (1977), pp. 5917-5922.
- The Prospects for Photovoltaic Conversion.** W. D. Johnston, Jr., *Amer. Sci.*, 65 (1977) pp. 729-736.
- Void Growth in the Early Stages of Aging and Electromigration.** J. R. Lloyd and S. Nakahara, *J. Appl. Phys.*, 48 (1977), pp. 5092-5095.

