

PAPERS BY AT&T BELL LABORATORIES AUTHORS

COMPUTING/MATHEMATICS

- Cleveland W. S., McGill R., **Graphical Perception—Theory, Experimentation, and Application to the Development of Graphical Methods.** *J Am Stat A* 79(387):531–554, Sep 1984.
- DeTreville J., Phoan: **An Intelligent System for Distributed Control Synthesis.** *SIGPLAN Not* 19(5):96–103, May 1984.
- Flajolet P., Odlyzko A. M., **Limit Distributions for Coefficients of Iterates of Polynomials With Applications to Combinatorial Enumerations.** *Math Proc C* 96(Sep):237–253, Sep 1984.
- Kapadia A. S., Kazmi M. F., Mitchell A. C., **Analysis of a Finite-Capacity Non-preemptive Priority Queue.** *Comput Oper* 11(3):337–343, 1984.
- Kernighan B. W., **The UNIX System and Software Reusability.** *IEEE Soft E* 10(5):513–518, Sep 1984.
- Lloyd S. P., **Optimal Dual Output Extended Hydrophone.** *SIAM J A Ma* 44(5):1031–1040, Oct 1984.
- Luss H., **Capacity Expansion Planning for a Single Facility Product Line.** *Eur J Oper* 18(1):27–34, Oct 1984.
- Morton M. J., Gray H. L., **The G-Spectral Estimator.** *J Am Stat A* 79(387):692–701, Sep 1984.
- Topkis D. M., **Adjacency on Polymatroids.** *Math Progr* 30(2):229–237, Oct 1984.
- Tukey P. A., Wachter K. W., **A Demographic Analogy for Shareowner Accounts.** *J Am Stat A* 79(387):525–530, Sep 1984.

ENGINEERING

- Agrawal G. P., Olsson N. A., Dutta N. K., **Effect of Fiber-Far-End Reflections on Intensity and Phase Noise in InGaAsP Semiconductor Lasers.** *Appl Phys L* 45(6):597–599, Sep 15, 1984.
- Alferness R. C., **A Strong Potential for Integrated-Optics Applications.** *Laser Foc E* 20(10):186–188, Oct 1984.
- Ashkin A., **Stable Radiation-Pressure Particle Traps Using Alternating Light Beams.** *Optics Lett* 9(10):454–456, Oct 1984.
- Banu M., Tsvividis Y., **Detailed Analysis of Nonidealities in MOS Fully Integrated Active RC Filters Based on Balanced Networks.** *IEE Proc-G* 131(5):190–196, Oct 1984.
- Baumert R. J., Cameron L. E., Wilson R. A., **A Mixed EFL I²L Digital Telecommunication Integrated Circuit.** *IEEE J Sol I* 19(1):26–31, 1984.
- Chu S., Burrus C. S., **Multirate Filter Designs Using Comb Filters.** *IEEE Circ S* 31(11):913–924, Nov 1984.
- Dragone C., **Scattering at a Junction of Two Waveguides With Different Surface Impedances.** *IEEE Micr T* 32(10):1319–1328, Oct 1984.
- Feldman L. C., **Rutherford Scattering-Channelling Analysis of Semiconductor Structures.** *P Soc Photo* 452:192–201, Nov 9–10, 1983.
- Harris T. D., Williams A. M., **Low Absorbance Measurements.** *P Soc Photo* 426:110–115, Aug 23–24, 1983.
- Hasegawa A., **Numerical Study of Optical Soliton Transmission Amplified Periodically by the Stimulated Raman Process.** *Appl Optics* 23(19):3302–3309, Oct 1, 1984.
- Heffron G., **Teleconferencing Comes of Age.** *IEEE Spectr* 21(10):61–66, Oct 1984.
- Heiman A., Barness Y., **Optimal Design of PLL With Two Separate Phase Detectors—Reply (Letter).** *IEEE Commun* 32(9):1058–1060, Sep 1984.
- Henry P. S. et al., **New Technique for Timing Recovery.** *Electr Lett* 20(20):815–816, Sep 27, 1984.

- Kaiser P., **Optical-Technology Used in the Atlanta Single-Mode Experiment.** P Soc Photo 425:127-133, 1983.
- Kelso S. M., Aspnes D. E., Olson C. G., Lynch D. W., Bachmann K. J., **Determination of Indirect Conduction-Band Minima in Semiconductors by Core-Level Reflectance Spectroscopy.** P Soc Photo 452:100-109, Nov 9-10, 1983.
- Liao P. F., Glass A. M., Johnson A. M., Olson D. H., Humphrey L. M., Stern M. B., **Enhancement of Optical-Detector Response Via Microstructured Electrodes.** P Soc Photo 439:197-201, 1983.
- Lin C. L., Eisenstein G., Burrus C. A., Tucker R. S., **Temporal and Spectral Characteristics of Single-Longitudinal-Mode Short-Coupled-Cavity (SCC) InGaAsP Lasers Under Multigigahertz Direct Modulation.** Electr Lett 20(20):842-844, Sep 27, 1984.
- Linke R. A., Gnauck A. H., **High Speed Laser Driving Circuit and Gigabit Modulation of Injection Lasers.** P Soc Photo 425:123-125, 1983.
- Marcuse D., **Computer Simulation of Laser Photon Fluctuations—Single-Cavity Laser Results.** IEEE J Q El 20(10):1148-1155, Oct 1984.
- Marcuse D., **Computer Simulation of Laser Photon Fluctuations—Theory of Single-Cavity Laser.** IEEE J Q El 20(10):1139-1148, Oct 1984.
- Miller S. E., Marcuse D., **On Fluctuations and Transients in Injection Lasers.** IEEE J Q El 20(9):1032-1044, Sep 1984.
- Nordland W. A., Kazarinov R. F., Merritt F. R., Savage A., Bonner W. A., **Modified Single-Phase LPE Technique for $\text{In}_{1-x}\text{Ga}_x\text{As}_{1-y}\text{P}_y$ Laser Structures.** Electr Lett 20(20):806-808, Sep 27, 1984.
- O'Connor P., Flahive P. G., Clemetson W., Panock R. L., Wemple S. H., Shunk S. C., Takahashi D. P., **A Monolithic Multigigabit/Second DCFL GaAs Decision Circuit.** IEEE Elec D 5(7):226-227, Jul 1984.
- Olson J. W., Schepis A. J., **Description and Application of the Fiber SLC™ Carrier System.** J Lightw T 2(3):317-322, Jun 1984.
- Petrou A., Perry C. H., Smith M. C., Worlock J. M., Aggarwal R. L., Gossard A. C., Wiegmann W., **Magneto-Raman and Magneto-Photoluminescence Characterization of MQW Heterostructures.** P Soc Photo 452:51-58, Nov 9-10, 1983.
- Reichmanis E., Smolinsky G., **Deep UV Positive Resists for Two-Level Photore-sist Processes.** P Soc Photo 469:38-44, Mar 12-13, 1984.
- Schulte H. J., **Transmission Tests During the SL Lightwave Submarine Cable System Sea Trial.** P Soc Photo 425:142-148, 1983.
- Sears F. M., Cohen L. G., Stone J., **Measurements of the Axial Uniformity of Dispersion Spectra in Single-Mode Fibers.** P Soc Photo 425:56-62, 1983.
- Stormer H. L., Baldwin K., Gossard A. C., Wiegmann W., **Modulation-Doped Field-Effect Transistor Based on a Two-Dimensional Hole Gas.** Appl Phys L 44(11):1062-1064, Jun 1, 1984.
- Wiesenfeld J. M., Stone J., Marcuse D., **Chirp in Picosecond Semiconductor Film Lasers and Passive Pulse Compression in Optical Fibers.** P Soc Photo 439:71-78, 1983.
- Yen R., Shank C. V., Fork R.L., **Femtosecond Optical Pulses and Technology.** P Soc Photo 439:2-5, 1983.

MANAGEMENT/ECONOMICS

- Weiss A., Landau H. J., **Wages, Hiring Standards, and Firm Size.** J Labor Ec 2(4):477-499, Oct 1984.

PHYSICAL SCIENCES

- Abrahams S. C., Ravez J., Canovet S., Grannec J., Loiacono G. M., **Phase Transitions and Ferroelectric Behavior in the $\text{Pb}_3(\text{MF}_6)_2$ Family ($M = \text{Ti, V, Cr, Fe, Ga}$).** J Appl Phys 55(8):3056-3060, 1984.

- Alferness R. C., Divino M. D., **Efficient Fiber to X-Cut Ti: LiNbO₃ Waveguide Coupling for $\lambda = 1.32 \mu\text{m}$** . *Electr Lett* 20(11):465-466, May 24, 1984.
- Auston D. H., Cheung K. P., Valdmans J. A., Kleinman D. A., **Cherenkov Radiation From Femtosecond Optical Pulses in Electro-Optic Media**. *Phys Rev L* 53(16):1555-1558, Oct 15, 1984.
- Baiocchi F. A., Wetzel R. C., Freund R. S., **Electron-Impact Ionization and Dissociative Ionization of the CD₃ and CD₂ Free Radicals**. *Phys Rev L* 53(8):771-774, Aug 20, 1984.
- Belfiore L. A., Schilling F. C., Tonelli A. E., Lovinger A. J., Bovey F. A., **Magic Angle Spinning Carbon-13 NMR Spectroscopy of Three Crystalline Forms of Polybutene-1**. *Polym Prepr* 25(1):351-353, 1984.
- Berberman D. W., Meiboom S., **Tensor Representation of Oseen-Frank Strain-Energy in Uniaxial Cholesterics**. *Phys Rev A* 30(4):1955-1959, Oct 1984.
- Bishop D. J., Varma C. M., Batlogg B., Bucher E., Fisk Z., Smith J. L., **Ultrasonic Attenuation in UPT₃**. *Phys Rev L* 53(10):1009-1011, Sep 3, 1984.
- Bondybey V. E., Haddon R. C., English J. H., **Fluorescence and Phosphorescence of 9-Hydroxyphenalenone in Solid Neon and Its Hydrogen Tunneling Potential Function**. *J Chem Phys* 80(11):5432-5437, Jun 1 1984.
- Bondybey V. E., English J. H., **Structure of the CuO₂ and Its Photochemistry in Rare Gas Matrices**. *J Phys Chem* 88(11):2247-2250, May 24, 1984.
- Buene L., Kaufmann E. N., Hamm R., Marra W. C., McDonald M. L., **Metastable Alloys of Beryllium Prepared by Ion Implantation**. *Metall T-A* 15(10):1787-1805, Oct 1984.
- Capasso F., Schwartz B., Logan R. A., **Self-Aligned InP p-n Junction Diodes Fabricated With ³He⁺ Bombardment**. *IEEE Elec D* 5(4):121-122, 1984.
- Cava R. J., Fleming R. M., Rietman E. A., Dunn R. G., Schneemeyer L. F., **Thermally Stimulated Depolarization of the Charge-Density Wave in K_{0.3}MoO₃**. *Phys Rev L* 53(17):1677-1680, Oct 22, 1984.
- Chabal Y. J., Patel C. K. N., **Infrared-Absorption in a-Si:H: First Observation of Gaseous Molecular H₂ and Si-H Overtone**. *Phys Rev L* 53(2):210-213, Jul 9, 1984.
- Chen C.Y., Cox H. M., Garbinski P. A., Hummel S. G., **Back-Side Illuminated Ga_{0.47}In_{0.53}As Photoconductive Detectors and Associated Dark Zones**. *Appl Phys L* 45(8):867-869, Oct 15, 1984.
- Chen R. W., Nair V. N., Odlyzko A. M., Shepp L. A., Vardi Y., **Optimal Sequential Selection of N Random Variables Under a Constraint**. *J Appl Prob* 21(3):537-547, Sep 1984.
- Chin B. H., Frahm R. E., **Germanium Doping of InP Films Grown by Liquid-Phase Epitaxy**. *J Elchem So* 131(10):2359-2360, Oct 1984.
- Chraplyvy A. R., Stone J., **Synchronously Pumped D₂ Gas-in-Glass Fiber Raman Laser Operating at 1.56 μm** . *Optics Lett* 9(6):241-242, Jun 1984.
- Connor J. A., Hockberger P., **A Novel Membrane Sodium Current Induced by Injection of Cyclic-Nucleotides Into Gastropod Neurons**. *J Physiol Lon* 354(Sep):139-162, Sep 1984.
- Connor J. A., Hockberger P., **Intracellular PH Changes Induced by Injection of Cyclic Nucleotides Into Gastropod Neurons**. *J Physiol Lon* 354(Sep):163-172, Sep 1984.
- Cooke W. E., Jopson R. M., Bloomfield L. A., Freeman R. R., Bokor J., **Correlations in Highly Excited Two-Electron Atoms—Planetary Behavior**. *AIP Conf Pr* (119):91-100, 1984.
- Cullen P., Harbison J. P., Lang D. V., Adler D., **A DLTS Study of the Effects of Boron Counterdoping on the Gap States in n-Type Hydrogenated Amorphous Silicon**. *Sol St Comm* 50(11):991-994, Jun 1984.
- Dahbura A. T., Masson G. M., **An O(n^{2.5}) Fault Identification Algorithm for Diagnosable Systems**. *IEEE Comput* 33(6):486-492, Jun 1984.
- Downey P. M., Schwartz B., **Picosecond Photoconductivity in ³He⁺ Bombarded InP**. *P Soc Photo* 439:30-39, 1983.
- Dubois L. H., Schwartz G. P., **A High-Resolution EELS Study of Free-Carrier Variations in H₂⁺/H⁺ Bombarded (100)GaAs**. *J Vac Sci B* 2(2):101-106, Apr-Jun 1984.
- Duguay M. A., Damen T. C., **Semiconductor Lasers Optically Pumped by Injection Lasers**. *P Soc Photo* 439:56-59, 1983.

- Duncan T. M., **The Distribution of Carbon in Boron Carbide: A ^{13}C Nuclear Magnetic Resonance Study.** *J Am Chem S* 106(8):2270-2275, 1984.
- Duncan T. M., Karlicek R. F., Bonner W. A., Thiel F. A., **A ^{31}P Nuclear Magnetic Resonance Study of InP, GaP and InGaP.** *J Phys Ch S* 45(4):389-391, 1984.
- Dutta N. K., Olsson N. A., Tsang W. T., **Carrier Induced Refractive-Index Change in AlGaAs Quantum Well Lasers.** *Appl Phys L* 45(8):836-837, Oct 15, 1984.
- Eaves L., Guimaraes P. S., Portal J. C., Pearsall T. P., Hill G., **High-Field Resonant Magnetotransport Measurements in Small n^+nn^+ GaAs Structures: Evidence for Electric-Field-Induced Elastic Inter-Landau-Level Scattering.** *Phys Rev L* 53(6):608-611, Aug 6, 1984.
- Fleming R. M., Muncton D. E., Axe J. D., Brown G. S., **High-Q-Resolution Scattering Using Synchrotron x Radiation: 2H-TaSe_2 and NbSe_3 .** *Phys Rev B* 30(4):1877-1883, Aug 15, 1984.
- Freeman R. R., Kincaid B. M., **Production of Coherent XUV and Soft X-Rays Using a Transverse Optical Klystron.** *AIP Conf Pr* (119):278-292, 1984.
- Gieren A. et al., (GE) **Comparison of Naphthothiadiazines and Isoelectronic Naphthotriazines by X-Ray Structural Analysis—X-Ray Structural Analyses of Acenaphthylene [5.6-cd] [1.2.6] Thiadiazine, 2-Methyl-2H-Acenaphthylene [5.6-de]-1.2.3-Triazine and Naphtho[1.8-de] Thiadiazine.** *Z Naturfo B* 39(7):975-984, Jul 1984.
- Gilroy H. M., Chan M. G., **Effect of Pigments on the Aging Characteristics of Polyolefins.** *Polym Sci T* 26:273-287, 1984.
- Graedel T. E., **Effects of Below-Cloud Gas Scavenging on Raindrop Chemistry Over Remote Ocean Regions.** *Atmos Envir* 18(9):1835-1842, 1984.
- Greenblatt M., Nair K. R., McCarroll W. H., Waszczak J. V., **Electrical Conductivity and Magnetic Susceptibility of Rutile Type CrVNbO_6 , FeVNbO_6 and $\text{Ni-V}_2\text{Nb}_2\text{O}_{10}$.** *Mater Res B* 19(6):777-782, Jun 1984.
- Greywall D. S., **Thermal Conductivity of Normal Liquid ^3He .** *Phys Rev B* 29(9):4933-4945, 1984.
- Gross B., Von Seggern H., West J. E., **Positive Charging of Fluorinated Ethylene Propylene Copolymer (Teflon) by Irradiation With Low-Energy Electrons.** *J Appl Phys* 56(8):2333-2336, Oct 15, 1984.
- Hauser J. J. et al., **Structure-Sensitive Magnetic Properties of Ni-Mn Alloys.** *Phys Rev B* 30(7):3803-3807, Oct 1, 1984.
- Heritage J. P., Sermage B., Martinez D. E., **Photoexcited Carrier Lifetime and Auger Recombination in 1.3 Micron Bandgap InGaAsP.** *P Soc Photo* 439:14-17, 1983.
- Huse D. A., **Exact Exponents for Infinitely Many New Multicritical Points.** *Phys Rev B* 30(7):3908-3915, Oct 1, 1984.
- Inoue A., Okamoto S., Masumoto T., Chen H. S., **Effect of Cold Rolling on the Superconducting and Electronic Properties of Two Amorphous Alloys; $\text{Nb}_{60}\text{Zr}_{35}\text{Si}_{15}$ and $\text{Nb}_{70}\text{Zr}_{15}\text{Si}_{15}$.** *J Mater Sci* 19(4):1251-1260, 1984.
- Jackel L. D., Howard R. E., Mankiewicz P. M., Craighead H. G., Epworth R. W., **Beam Energy Effects in Electron-Beam Lithography—The Range and Intensity of Backscattered Exposure.** *Appl Phys L* 45(6):698-700, Sep 15, 1984.
- Jackson D. P., Buck T. M., Wheatley G. H., **Atom Layer Effects in the Scattering of keV Ne From $\text{Cu}_2\text{Au}(100)$.** *Nucl Inst B* 230(1-3):440-443, 1984.
- Jackson S. A., Peeters F. M., **Magnetic-Field Detrapping of Polaronic Electrons on Films of Liquid Helium.** *Phys Rev B* 30(8):4196-4202, Oct 15, 1984.
- Jelinski L. W., Dumais J. J., Engel A. K., **Solid State ^2H NMR Studies of Molecular Motion—Poly(butylene terephthalate) and Poly(butylene terephthalate)-Containing Segmented Copolymers.** *ACS Symp S* (247):55-65, 1984.
- Jelinski L. W., Dumais J. J., Luongo J. P., Cholli A.L., **Thermal-Oxidation and Its Analysis at Low Levels in Polyethylene.** *Macromolec* 17(9):1650-1655, Sep 1984.
- Jopson R. M., Freeman R. R., Cooke W. E., Bokor J., **Two-Photon Spectroscopy of $7s\text{'d}$ Autoionizing States of Barium.** *Phys Rev A* 29(6):3154-3158, Jun 1984.
- Joy D. C., **A Parametric Partial Cross Section for ELS.** *J Microsc D* 134(Apr):89-92, 1984.
- Kamgar A., Fichtner W., Sheng T. T., Jacobson D. C., **Junction Leakage Studies in Rapid Thermal Annealed Diodes.** *Appl Phys L* 45(7):754-756, Oct 1, 1984.

- Kaminow I. P., **Polarization-Maintaining Fibers.** Appl Sci Re 41(3-4):257-270, 1984.
- Karp B. C., Ludwig E. J., Thompson W. J., **Alpha-Particle D-State Components From (D, Alpha) Analyzing Powers.** Phys Rev L 53(17):1619-1622, Oct 22, 1984.
- Kelber J. A. et al., **Photon-Stimulated Desorption of Solid Neopentane.** Phys Rev B 30(8):4748-4752, Oct 15, 1984.
- Kuck V., **Critical Temperature for Solubility of a Phenolic Antioxidant.** Polym Sci T 26:103-110, 1984.
- Lagowski J., Lin D. G., Gatos H. C., Parsey J. M., Kaminska M., **Real and Apparent Effects of Strong Electric Fields on the Electron Emission From Midgap Levels EL2 and ELO in GaAs.** Appl Phys L 45(1):89-91, Jul 1, 1984.
- Lake G., Schommer R. A., **A Successful Survey of H-I in Low-Luminosity Elliptical Galaxies.** Astrophys J 280(1):107-116, May 1, 1984.
- Lambert W. R., Trevor P. L., Doak R. B., Cardillo M. J., **Inelastic Helium Scattering From Ag(001) and Ag(001)c (2 x 2) Cl.** J Vac Sci A 2(2):1066-1068, Apr-Jun 1984.
- Larson R. G., **A Constitutive Equation for Polymer Melts Based on Partially Extending Strand Convection.** J Rheol 28(5):545-571, Oct 1984.
- Lawrence J. M., Thompson J. D., Fisk Z., Smith J. L., Batlogg B., **x-P-T Phase Diagram for the γ - α Transition in Ce_{0.9-x}La_xTh_{0.1} Alloys.** Phys Rev B 29(7):4017-4025, 1984.
- Lin B. J. F., Tsui D. C., Paalanen M. A., Gossard A. C., **Mobility of the Two-Dimensional Electron Gas in GaAs-Al_xGa_{1-x}As Heterostructures.** Appl Phys L 45(6):695-697, Sep 15, 1984.
- Liou K. Y., Burrus C. A., Linke R. A., Kaminow I. P., Granlund S. W., Swan C. B., Besomi P., **Single-Longitudinal-Mode Stabilized Graded-Index-Rod External Coupled-Cavity Laser.** Appl Phys L 45(7):729-731, Oct 1, 1984.
- Lovinger A. J., Johnson G. E., Bair H. E., Anderson E. W., **Structural, Dielectric, and Thermal Investigation of the Curie Transition in a Tetrafluoroethylene Copolymer of Vinylidene Fluoride.** J Appl Phys 56(9):2412-2418, Nov 1, 1984.
- Lucchese R. R., Tully J. C., **Trajectory Studies of Vibrational Energy Transfer in Gas-Surface Collisions.** J Chem Phys 80(7):3451-3462, 1984.
- Lyons K. B., Sturge M. D., Greenblatt M., **Low-Frequency Raman-Spectrum of ZrSiO₄: V⁴⁺: An Impurity-Induced Dynamical Distortion.** Phys Rev B 30(4):2127-2132, Aug 15, 1984.
- Marcucella H., Munro I., MacDonald J. S., **Patterns of Ethanol Consumption as a Function of the Schedule of Ethanol Access.** J Pharm Exp 230(3):658-664, Sep 1984.
- Martinez O. E., Gordon J. P., Fork R. L., **Negative Group-Velocity Dispersion Using Refraction.** J Opt Soc A 1(10):1003-1006, Oct 1984.
- Masnovi J. M., Huffman J. C., Kochi J. K., Hilinski E. F., Rentzepis P. M., **Picosecond Spectroscopy of Charge-Transfer Processes. Photochemistry of Anthracene-Tetranitromethane EDA Complexes.** Chem P Lett 106(1-2):20-25, 1984.
- McAfee K. B., Walker K. L., Laudise R. A., Hozack R. S., **Dependence of Equilibria in the Modified Chemical Vapor-Deposition Process on SiCl₄, GeCl₄, and O₂.** J Am Ceram 67(6):420-424, Jun 1984.
- McCall D. W., Douglass D. C., Blyler L. L., Johnson G. E., Jelinski L. W., Bair H. E., **Solubility and Diffusion of Water in Low-Density Polyethylene.** Macromolec 17(9):1644-1649, Sep 1984.
- Miller B., **Charge-Transfer and Corrosion Processes at III-V Semiconductor Electrolyte Interfaces.** J Elec Chem 168(1-2):91-100, Jun 25, 1984.
- Miller B., Rosamilia J. M., **Maximum Power Spectroscopy for Photovoltaic Devices.** J Elchem So 131(10):2266-2271, Oct 1984.
- Miller T. A., Suzuki T., Hirota E., **High-Resolution, cw Laser Induced Fluorescence Study of the A² π_u - X² Σ_g^+ System of N₂⁺.** J Chem Phys 80(10):4671-4678, May 15, 1984.
- Murarka S. P., **Phosphorus Out-Diffusion During High-Temperature Anneal of Phosphorus-Doped Polycrystalline Silicon and SiO₂.** J Appl Phys 56(8):2225-2230, Oct 15, 1984.
- Nakahara S., **Detection of Gas-Bubbles and Organic-Molecules Included in**

Electrodeposited Films by Transmission Electron Microscopy. *J Elchem Sc* 131(10):2246-2250, Oct 1984.

Nakahara S., Felder E. C., Temkin H., **Characterization of Near-Surface Line Defects Formed During High-Temperature Annealing of Gold-Metallized III-V-Compound Semiconductors (InP and GaAs).** *J Elchem So* 131(8):1917-1920, Aug 1984.

Ogawa S., Lee T. M., **The Relation Between the Internal Phosphorylation Potential and the Proton Motive Force in Mitochondria During ATP Synthesis and Hydrolysis.** *J Biol Chem* 259(16):1004-1011, Aug 25, 1984.

Olsson N. A., Dutta N. K., Besomi P., Shen T. M., Nelson R.J., Linke R. A., Tucker R. S., **Two Gbit/s Operation of Single-Longitudinal-Mode 1.5 μm Double-Channel Planar Buried-Heterostructure C³ Lasers.** *Electr Lett* 20(10):395-397, May 10, 1984.

Paalanen M. A., Hebard A. F., **A Criterion for the Determination of Upper Critical Fields in Highly Disordered Thin-Film Superconductors.** *Appl Phys L* 45(7):794-796, Oct 1, 1984.

Panish M. B., Sumski S., **Gas Source Molecular Beam Epitaxy of Ga_xIn_{1-x}P_yAs_{1-y}.** *J Appl Phys* 55(10):3571-3576, 1984.

Panish M. B., Temkin H., **GaInAsP InP Heterostructure Lasers Emitting at 1.5- μm and Grown by Gas Source Molecular Beam Epitaxy.** *Appl Phys L* 44(8):785-787, 1984.

Patel D. J., Kozlowski S. A., Ikuta S., Itakura K., **Deoxyadenosine-Deoxycytidine Pairing in the d(C-G-C-G-A-A-T-T-C-A-C-G) Duplex: Conformation and Dynamics at and Adjacent to the dA.dC Mismatch Site.** *Biochem* 23(14):3218-3226, Jul 3, 1984.

Patel D. J., Kozlowski S. A., Ikuta S., Itakura K., **Deoxyguanosine-Deoxyadenosine Pairing in the d(C-G-A-G-A-A-T-T-C-G-C-G) Duplex: Conformation and Dynamics at and Adjacent to the dG.dA Mismatch Site.** *Biochem* 23(14):3207-3217, Jul 3, 1984.

Patel D. J., Kozlowski S. A., Ikuta S., Itakura K., **Dynamics of DNA Duplexes Containing Internal G-T, G-A, A-C, and T-C Pairs: Hydrogen Exchange at and Adjacent to Mismatch Sites.** *Fed Proc* 43(11):2663-2670, Aug 1984.

Petroff P. M., Gossard A. C., Wiegmann W., **Structure of AlAs-GaAs Interfaces Grown on (100) Vicinal Surfaces by Molecular-Beam Epitaxy.** *Appl Phys L* 45(6):620-622, Sep 15, 1984.

Raghavachari K. et al., **Theoretical Study of Silylene Insertion Into N-H, O-H, F-H, P-H, S-H, and Cl-H Bonds.** *J Am Chem S* 106(20):5853-5859, Oct 3, 1984.

Rowe H. E., **Waves With Random Coupling and Random Propagation Constants.** *Appl Sci Re* 41(3-4):237-255, 1984.

Schilling F. C., Bovey F. A., Tonelli A. E., Tseng S., Woodward A. E., **Solid-State Carbon-13 NMR Study of the Fold Surface of Solution-Grown 1,4-Trans-Polybutadiene Crystals.** *Macromolec* 17(4):728-733, 1984.

Schneemeyer L. F., Disalvo F. J., Spengler S. E., Waszczak J. V., **Dramatic Impurity Effects on the Charge-Density Wave in Potassium Molybdenum Bronze.** *Phys Rev B* 30(8):4297-4301, Oct 15, 1984.

Schwenk H., Hess E., Andres K., Wudl F., Aharon-Shalom E., **Isotope Effect in the Organic Superconductor (TMTSF)₂ClO₄.** *Phys Lett A* 102(1-2):57-60, Apr 30, 1984.

Silfvast W. T., Wood O. R., Macklin J. J., Lundberg H., **Photoionization Lasers Pumped by Broad-Band Soft-X-Ray Radiation From Laser-Produced Plasmas.** *AIP Conf Pr* (119):427-436, 1984.

Starnes W. H. et al., **Mechanism of Polyvinyl-Chloride, Fire Retardance by Molybdenum(VI) Oxide—Further Evidence in Favor of the Lewis Acid Theory.** *Polym Sci T* 26:237-248, 1984.

Stern M. B., Harrison T. R., Archer V. D., Liao P. F., Bean J. C., **Raman-Spectroscopic Analysis of the CaF₂-Si Heterostructure Interface.** *Sol St Comm* 51(4):221-224, Jul 1984.

Tarascon J. M., Hull G. W., Disalvo F. J., **A Facile Synthesis of Pseudo One-Dimensional Ternary Molybdenum Chalcogenides M₂Mo₆X₆ (X = Se, Te; M = Li, Na..Cs).** *Mater Res B* 19(7):915-924, Jul 1984.

Taylor G. N., Stillwagon L. E., Venkatesan T., **Gas-Phase-Functionalized Plasma-**

- Developed Resist: Initial Concepts and Results for Electron-Beam Exposure.** *J Elchem So* 131(7):1658-1664, Jul 1984.
- Tewksbury S. K., Biazzo M. R., Lindstrom T. L., Tennant D. M., **Depletion Layer Formation Rate at $T < 30$ °K in Buried Channel, Metal-Oxide-Semiconductor Transistors.** *J Appl Phys* 56(2):517-521, Jul 15, 1984.
- Tinubu S. O., Gupta K. C., **Optimal Synthesis of Function Generators Without the Branch Defect.** *J Mech Tran* 106(3):348-354, Sep 1984.
- Tonelli A. E., **^{13}C -NMR Chemical Shifts and the Conformations of Rigid Polypeptides.** *Biopolymers* 23(4):819-829, 1984.
- Tonelli A. E., Schilling F. C., **Carbon-13 NMR Chemical Shifts and the Microstructure of Propylene-Vinyl Chloride Copolymer With Low Propylene Content.** *Polym Prepr* 25(1):334-335, 1984.
- Van Saarloos W., Weeks J. D., **Surface Undulations in Explosive Crystallization—A Nonlinear Analysis of a Thermal Instability.** *Physica D* 12(1-3):279-294, Jul 1984.
- Venkatesan T., Brown W. L., Wilkens B. J., Reimann C. T., **Secondary Electron, Ion and Photon Emission During Ion Beam Irradiation of Polymer and Condensed Gas Films.** *Nucl Inst B* 229(2-3):605-609, 1984.
- Vieira N. D., Mollenauer L. F., Szeto L. H., **Optical Properties of the $\text{In}^0(1)$ Center in KCl.** *Sol St Comm* 50(12):1037-1041, Jun 1984.
- Vonseggern H., Wang T. T., **Polarization Behavior During High-Field Poling of Poly(vinylidene Fluoride).** *J Appl Phys* 56(9):2448-2452, Nov 1, 1984.
- Warren W. W., Sotier S., Brenner G. F., **Localization of Electrons in Ionic Liquids: Nuclear Magnetic Resonance in Cs-CsI and CsI-I Solutions.** *Phys Rev B* 30(1):65-77, Jul 1, 1984.
- Weiss M. A., Patel D. J., Sauer R. T., Karplus M., **^1H -NMR Study of the λ Operator Site O_{L1} : Assignment of the Imino and Adenine H2 Resonances.** *Nucl Acid R* 12(9):4035-4047, May 11, 1984.
- Wertheim G. K. et al., **Line-Shapes in Surface-Atom Core-Level Photoemission From Ta(111), W(111), and W(100).** *Phys Rev B* 30(8):4343-4347, Oct 15, 1984.
- White J. C., Craighead H. G., Howard R. E., Jackel L. D., Wood O. R., **VUV Laser Photolithography.** *AIP Conf Pr* (119):324-329, 1984.
- Whitt W., **Minimizing Delays in the GI/G/1 Queue.** *Oper Res* 32(1):45-51, Jan-Feb 1984.
- Wolf T. M., Taylor G. N., Venkatesan T., Kraetsch R. T., **The Scope and Mechanism of New Positive Tone Gas-Phase-Functionalized Plasma-Developed Resist.** *J Elchem So* 131(7):1664-1670, Jul 1984.
- Yin M. T., **Si-III (BC-8) Crystal Phase of Si and C: Structural Properties, Phase Stabilities, and Phase Transitions.** *Phys Rev B* 30(4):1773-1776, Aug 15, 1984.
- Yu C. C., Anderson P. W., **Local-Phonon Model of Strong Electron Phonon Interactions in A15 Compounds and Other Strong-Coupling Superconductors.** *Phys Rev B* 29(11):6165-6186, Jun 1, 1984.

SOCIAL AND LIFE SCIENCES

- Poltrock S. E., Brown P., **Individual Differences in Visual Imagery and Spatial Ability.** *Intelligenc* 8(2):93-138, Apr-Jun 1984.

SPEECH/ACOUSTICS

- Tartter V. C., **Laterality Differences in Speaker and Consonant Identification in Dichotic Listening.** *Brain Lang* 23(1):74-85, Sep 1984.
- Cohen L. G., Pearson A. D., **A Systematic Approach to Fabricating Single-Mode Lightguides.** *P Soc Photo* 425:28-32, 1983.