

PAPERS BY BELL LABORATORIES AUTHORS

COMPUTING/MATHEMATICS

- Aho A. V., Wyner A. D., Yannakakis M., Ullman J. D., **Bounds on the Size and Transmission Rate of Communication Protocols.** Comput Math 8(3):205-214, 1982.
- Anderson T. W., Hsiao C., **Formulation and Estimation of Dynamic-Models Using Panel Data.** J Economet 18(1):47-82, 1982.
- Bassett G., Koenker R., **An Empirical Quantile Function for Linear-Models with IID Errors.** J Am Stat A 77(378):407-415, 1982.
- Beutler F. J., Melamed B., **Multivariate Poisson Flows on Markov Step Processes.** J Appl Prob 19(2):289-300, 1982.
- Boyles S. M., Exoo G., **A Counterexample to a Conjecture on Paths of Bounded Length.** J Graph Th 6(2):205-209, 1982.
- Conway J. H., Sloane N. J. A., **23 Constructions for the Leech Lattice.** P Roy Soc A 381(1781):275-283, 1982.
- Doverspike R. D., **Some Perturbation Results for the Linear Complementary-Problem.** Math Progr 23(2):181-192, 1982.
- Du D. Z., Hwang F. K., **Balanced Howell Rotations of the Twin Prime Power Type.** T Am Math S 271(2):415-421, 1982.
- Du D. Z., Hwang F. K., **Symmetric Skew Balanced Starters and Complete Balanced Howell Rotations.** T Am Math S 271(2):409-413, 1982.
- Elken T. R., **Combining a Path Method and Parametric Linear-Programming for the Computation of Competitive Equilibria.** Math Progr 23(2):148-169, 1982.
- Halfin S., **Linear Estimators for a Class of Stationary Queueing-Processes.** Operat Res 30(3):515-529, 1982.
- Hawkins D. T., **Online Information-Retrieval Bibliography—5th Update.** Online Rev 6(2):147-208, 1982.
- Hohenberg P. C., Langer J. S., **Non-Equilibrium Phenomena—Outlines and Bibliographies of a Workshop.** J Stat Phys 28(1):193-226, 1982.
- Kantor W. M., **Spreads, Translation-Planes and Kerdock Sets.** SIAM J Alg 3(2):151-165, 1982.
- Morrison J. A., **The Solution of an Integral-Equation Related to Optimal Linear-Estimation Problem.** SIAM J A Ma 42(3):588-607, 1982.
- Odlyzko A. M., **Periodic Oscillations of Coefficients of Power-Series That Satisfy Functional-Equations.** Adv Math 44(2):180-205, 1982.
- Sethi R., **Pebble Games for Studying Storage Sharing.** Theor Comp 19(1):69-84, 1982.
- Slepian D., **Solution of Certain Integral-Equations With Difference Kernels.** SIAM J Num 19(3):614-622, 1982.

ECONOMICS

- Bawa V. S., **Stochastic-Dominance—a Research Bibliography.** Manag Sci 28(6):698-712, 1982.
- Jordan J. S., Radner R., **Rational-Expectations in Microeconomic Models—Overview.** J Econ Theo 26(2):201-223, 1982.
- Jovanovic B., **Inflation and Welfare in the Steady-State.** J Polit Ec 90(3):561-577, 1982.
- Jovanovic B., **Selection and the Evolution of Industry.** Econometric 50(3):649-670, 1982.
- Rosenthal R. W., **A Dynamic-Model of Duopoly With Customer Loyalties.** J Econ Theo 27(1):69-76, 1982.

ENGINEERING

- Alferness R. C., **Low-Loss Fiber-Coupled Wave-Guide Directional Coupler Modulator.** Electr Lett 18(12):490-491, 1982.
- Boyd G. D., Cheng J., Thurston R. N., **A Multiplexible Bistable Nematic Liquid-Crystal Display Using Thermal Erasure.** Appl Phys L 40(11):936-938, 1982.
- Brews J. R., **Dopant Density From Maximum-Minimum Capacitance Ratio of Implanted MOS Structures.** Sol St Elec 25(5):375-379, 1982.
- Campbell J. C., Dentai A. G., Copeland J. A., Holden W. S., **Optical AND Gate.** IEEE J Q El 18(6):992-995, 1982.
- Cho A. Y., Kollberg E., Zirath H., Snell W. W., Schneider M. V., **Single-Crystal Metal-Semiconductor Microjunctions Prepared by Molecular-Beam Epitaxy.** Electr Lett 18(10):424-425, 1982.
- Cleveland W. S., Diaconis P., McGill R., **Variables on Scatterplots Look More Highly Correlated When the Scales are Increased.** Science 216(4550):1138-1141, 1982.
- Cox D. C., Arnold H. W., Hoffman H. H., **Measurement Bounds on Rain-Scatter Coupling Between Space-Earth Radio Paths.** IEEE Antenn 30(3):493-497, 1982.
- Cox D. C., Arnold H. W., **Results From the 19-GHz and 28-GHz COMSTAR Satellite Propagation Experiments at Crawford Hill.** P IEEE 70(5):458-488, 1982.
- Dragone C., **A First-Order Treatment of Aberrations in Cassegrainian and Gregorian Antennas.** IEEE Antenn 30(3):331-339, 1982.
- Dudderar T. D., Simpkins P. G., **The Development of Scattered-Light Speckle Metrology.** Opt Eng 21(3):396-399, 1982.
- Dutta N. K., Nelson R. J., **Temperature-Dependence of the Lasing Characteristics of the 1.3 InGaAsP-InP and GaAs-Al_{0.36}Ga_{0.64}As DH Lasers.** IEEE J Q El 18(5):871-878, 1982.
- Etzel M. H., Jenkins W. K., **The Design of Specialized Residue Classes for Efficient Recursive Digital Filter and Realization.** IEEE Acoust 30(3):370-380, 1982.
- Grabbe P., Hu E. L., Howard R. E., **Trilevel Lift-Off Process for Refractory Metals.** J Vac Sci T 21(1):33-35, 1982.
- Hall T. M., Wagner A., Thompson L. F., **Ion-Beam Exposure Characteristics of Resists—Experimental Results.** J Appl Phys 53(6):3997-4010, 1982.
- Knapp J. A., Lapeyre G. J., Smith N. V., Traum M. M., **Modification of a Cylindrical Mirror Analyzer for Angle-Resolved Electron-Spectroscopy.** Rev Sci Ins 53(6):781-784, 1982.
- Lazay P. D., Pearson A. D., **Developments in Single-Mode Fiber Design, Materials, and Performance at Bell Laboratories.** IEEE J Q El 18(4):504-510, 1982.
- Lien R. M., **Build Small-Part Molds That Double for Prototyping and Production-Runs.** Plast Eng 38(5):61-63, 1982.
- Logan R. A., Vanderziel J. P., Mikulyak R. M., **A Closely Spaced (50 μm) Array of 16 Individually Addressable Buried Heterostructure GaAs-Lasers.** Appl Phys L 41(1):9-11, 1982.
- Nagal S. R., Mac Chesney J. B., Walker K. L., **An Overview of the Modified Chemical Vapor-Deposition (MCVD) Process and Performance.** IEEE J Q El 18(4):459-476, 1982.
- Nassau K., Wemple S. H., **Material Dispersion Slope in Optical-Fibre Waveguides.** Electr Lett 18(11):450-451, 1982.
- Ogawa K., **Analysis of Mode Partition Noise in Laser Transmission-Systems.** IEEE J Q El 18(5):849-855, 1982.
- Olson J. R., Nichols R. H., **Correlation-Measurements of Surface-Reflected Underwater Acoustic-Signals at Several Sea States.** J Acoust So 71(6):1453-1457, 1982.
- Pearsall T. P., **ZAP—Introducing the Zero-Bias Avalanche Photodiode.** Electr Lett 18(12):512-514, 1982.
- Rabiner L. R., Rosenberg A. E., Wilpon J. G., Zampini T. M., **A Bootstrapping Training Technique for Obtaining Demi-Syllable Reference Patterns.** J Acoust So 71(6):1588-1595, 1982.
- Ross I. M., **R-and-D in the United-States—Its Strengths and Challenges.** Science 217(4555):130-131, 1982.

- Rowe H. E., **Bounds on the Number of Signals With Restricted Cross-Correlation.** IEEE Commun 30(5):966-977, 1982.
- Sessler G. M., West J. E., Von Seggern H., **Electron-Beam Method for Detecting Charge-Distributions in Thin Polyethyleneterephthalate Films.** J Appl Phys 53(6):4320-4327, 1982.
- Sinha A. K., Cooper J. A., Levinstein H. J., **Speed Limitations Due to Interconnect Time Constants in VLSI Integrated-Circuits.** Elec Dev L 3(4):90-92, 1982.
- Smith R. W., Tomlinson W. J., **Optically Bistable Devices.** Electrotecn 69(3):199-206, 1982.
- Sze S. M., **The Development of Semiconductor-Devices in the 1970s and 1980s—an Overview.** Electrotecn 69(4):297-304, 1982.
- Stone J., Cohen L. G., **Tunable InGaAsP lasers for Spectral Measurements of High Bandwidth Fibers.** IEEE J Q El 18(4):511-513, 1982.
- Thornber K. K., **Current Equations for Velocity Overshoot.** Elec Dev L 3(3):69-71, 1982.
- Tsang W. T., Logan R. A., **As Strip Buried-Heterostructure Lasers Prepared by Hybrid Crystal-Growth.** Electr Lett 18(10):397-398, 1982.
- Unger B. A., **How Not to 'Zap' a Circuit.** Bell Lab Re 60(5):123-127, 1982
- Williams G. F., Capasso F., Tsang W. T., **The Graded Bandgap Multilayer Avalanche Photodiode—A New Low-Noise Detector.** Elec Dev L 3(3):71-73, 1982.
- Winters J. H., **Spread Spectrum in a 4-Phase Communication-System Employing Adaptive Atennas.** IEEE Commun 30(5):929-936, 1982.

PHYSICAL SCIENCES

- Abrahams S. C., Zyontz L. E., Bernstein J. L., **Cobalt Cyanourate—Crystal-Structure of a Component From Cobalt-Hardened Gold Electroplating Baths.** J Chem Phys 76(11):5458-5462, 1982.
- Aeppli G., et al., **Spin Correlations Near the Ferromagnetic Spin-Glass Crossover Point in Amorphous Fe-Mn Alloys.** Phys Rev B 25(7):4882-4885, 1982.
- Aharonshalom E., Wudl F., Bertz S. H., Walsh W. M., Rupp L. W., Chaikin P. M., Burns M. J., Andres K., Schwenk H., **Tetrakis (Deuteriomethyl) Tetraselenafulvalene.** Molec Cryst 86(1-4):1775-1781, 1982.
- Alferness R. C., **Tunable Electrooptic Wave-Guide Te \leftrightarrow Tm Converter Wavelength Filter.** Appl Phys L 40(10):861-862, 1982.
- Applebury M. L., **Picosecond Spectroscopy of Visual Pigments.** Meth Enzym 81(PH):354-368, 1982.
- Ashkin A., Dziedzic J. M., Smith P. W., **Continuous-Wave Self-Focusing and Self-Trapping of Light in Artificial Kerr Media.** Optics Lett 7(6):276-278, 1982.
- Aspnes D. E., **Bounds to Average Internal Fields in Two-Component Composites.** Phys Rev L 48(23):1629-1632, 1982.
- Aspnes D. E., Kelso S. M., Olson C. G., Lynch D. W., **Direct Determination of Sizes of Excitations From Optical Measurements on Ion-Implanted GaAs.** Phys Rev L 48(26):1863-1866, 1982.
- Aspnes D. E., Kelso S. M., **Properties and Performance of Grazing-Incidence Mirror Systems.** Nucl Instru 195(1-2):175-181, 1982.
- Ballman A. A., Brown H., Blitzer L. D., **Growth of Antimony Doped InP Single-Crystal.** J Cryst Gr 57(3):516-518, 1982.
- Bally J., Lane A. P., **Observations of 2 μ m Molecular-Hydrogen Emission From NGC-2071, Cepheus-A, and GL-961.** Astrophys J 257(2):612-619, 1982.
- Banavar J. R., Grest G. S., Jasnow D., **Anti-Ferromagnetic Potts and Ashkin-Teller Models in 3 Dimensions.** Phys Rev B 25(7):4639-4650, 1982.
- Beck S. M., Brus L. E., **The Resonance Raman-Spectra of Aqueous Phenoxy and Phenoxy-D₅ Radicals.** J Chem Phys 76(10):4700-4704, 1982.
- Beckman O., et al., **Low Field Simultaneous AC and DC Magnetization Measurements of Amorphous (Fe_{0.20} Ni_{0.80})₇₅P₁₆B₈Al₃ and (Fe_{0.68}Mn_{0.32})₇₅P₁₆B₈Al₃.** Phys Scr 25(6):676-678, 1982.

- Beckman O., Figueroa E., Gramm K., Lundgren L., Rad K. V., Chen H. S., **Spin-Wave and Scaling Law Analysis of Amorphous $(Fe_{x}Ni_{1-x})_{75}P_{15}B_6Al_3$ by Magnetization Measurements.** Phys Scr 25(6):726-730, 1982.
- Beneking H., Cho A. Y., Dekkers J. J. M., Morkoc H., **Buried-Channel GaAs-MESFETs on MBE Material—Scattering Parameters and Intermodulation Signal Distortion.** IEEE Device 29(5):811-813, 1982.
- Beni G., Hackwood S., Jackel J. L., **Continuous Electro-Wetting Effect.** Appl Phys L 40(10):912-914, 1982.
- Bertz S. H., Dabbagh G., Cotte P., **New Copper Chemistry. 3. New Preparations of Ethyl 3,3-Diethoxypropionate and (Ethoxycarbonyl)Malondialdehyde-Cu(I)-Catalyzed Acetal Formation from Conjugated Triple Bond.** J Org Chem 47(11):2216-2217, 1982.
- Blitz L., Fich M., Stark A. A., **Catalog of CO Radial-Velocities Toward Galactic H-II Regions.** Astroph J S 49(2):183-206, 1982.
- Bosch M. A., Kang K. S., Hackwood S., Beni G., Shay J. L., **Optical Writing on Blue, Sputtered Iridium Oxide-Films.** Appl Phys L 41(1):103-105, 1982.
- Boutique J. P., Riga J., Verbist J. J., Delhalles J., Fripiat J. G., Andre J. M., Haddon R. C., Kaplan M. L., **Electronic Structure of Naphtho < 1,8-CD, 4,5-CD'>BIS < 1,2,6-Thiadiazines and < 1,2,6-Selenadiazines—Ab initio Calculations and Photo-Electron Spectra.** J Am Chem S 104(10):2691-2697, 1982.
- Brinkman W. F., Cladis P. E., **Defects in Liquid-Crystals.** Phys Today 35(5):48-54, 1982.
- Broughton J. Q., Gilmer G. H., Weeks J. D., **Molecular-Dynamics Study of Melting in 2 Dimensions—Inverse-12th-Power Interaction.** Phys Rev B 25(7):4651-4669, 1982.
- Brown T. R., Kincaid B. M., Ugurbil K., **NMR Chemical-Shift Imaging in 3 Dimensions.** P Nas Biol 79(11):3523-3526, 1982.
- Carmeli B., Nitzan A., **First Passage Times and the Kinetics of Unimolecular Dissociation.** J Chem Phys 76(11):5321-5333, 1982.
- Cava R. J., Santoro A., Murphy D. W., Zahurak S., Roth R. S., **The Structures of Lithium-Inserted Metal-Oxides—Lier₃ and Li₂Re₃.** J Sol St Ch 42(3):251-262, 1982.
- Celler G. K., Trimble L. E., Ng K. K., Leamy H. J., Baumgart H., **Seeded Oscillatory Growth of Si Over SiO₂ by CW Laser Irradiation.** Appl Phys L 40(12):1043-1045, 1982.
- Chang T. Y., Leheny R. F., Nahory R. E., Silberg E., Ballman A. A., Caridi E. A., Harrold C. J., **Junction Field-Effect Transistors Using In_{0.53}Ga_{0.47}As Material Grown by Molecular-Beam Epitaxy.** Elec Dev L 3(3):56-58, 1982.
- Cheng J., Thurston R. N., Boyd G. D., Meyer R. B., **A Nematic Liquid-Crystal Storage Display Based on Bistable Boundary-Layer Configurations.** Appl Phys L 40(12):1007-1009, 1982.
- Cheng K. Y., Cho A. Y., **Silicon Doping and Impurity Profiles in Ga_{0.47}In_{0.53}As and Al_{0.48}In_{0.52}As Grown by Molecular-Beam Epitaxy.** J Appl Phys 53(6):4411-4415, 1982.
- Chung F. R. K., Erdos P., Graham R. L., **Minimal Decompositions of Hypergraphs Into Mutually Isomorphic Sub-Hypergraphs.** J Comb Th A 32(2):241-251, 1982.
- Cohen J. D., Lang D. V., **Calculation of the Dynamic-Response of Schottky Barriers with a Continuous Distribution of Gap States.** Phys Rev B 25(8):5321-5350, 1982.
- Crisci R. J., Draper C. W., Preece C. M., **Cavitation Erosion of Laser-Surface-Melted Self-Quenched Fe-Al Bronze.** Appl Optics 21(10):1730-1731, 1982.
- Dahlberg S. C., Reinganum C. B., **Photochromic Switching in Semiconducting Films of Zinc Dithizonate.** J Chem Phys 76(11):5515-5518, 1982.
- Degani J., Leheny R. F., Nahory R. E., Shah J., **High-Field Transport Characteristics of Minority Electron In P-In_{0.53}Ga_{0.47}As.** Thin Sol Fi 89(1):19-20, 1982.
- Dicenzo S. B., Wertheim G. K., Buchanan D. N., **Epitaxy of Cul on Cu(111).** Appl Phys L 40(10):888-890, 1982.
- Drummond T. J., Morkoc H., Cheng K. Y., Cho A. Y., **Current Transport in Modulation-Doped Ga_{0.47}In_{0.53}As/Al_{0.48}In_{0.52}As Heterojunctions at Moderate Electric Fields.** J Appl Phys 53(5):3654-3657, 1982.

- Dutta N. K., **Temperature-Dependence of Threshold Current of GaAs Quantum Well Lasers.** Electr Lett 18(11):451-453, 1982.
- Efstathiou G., et al., **The Stability and Masses of Disk Galaxies.** M Not R Ast 199(3):1069-1088, 1982.
- Finn P. L., Cladis P. E., **Cholesteric Blue Phases in Mixtures and in an Electric Field.** Molec Cryst 84(1-4):159-192, 1982.
- Forrest S. R., Kim Q. K., Smith R. G., **Optical-Response Time of In0.53Ga0.47As/InP Avalanche Photo-Diodes.** Appl Phys L 41(1):95-98, 1982.
- Forrest S. R., Kaplan M. L., Schmidt P. H., Feldmann W. L., Yanowski E., **Organic-on-Inorganic Semiconductor Contact Barrier Devices.** Appl Phys L 41(1):90-93, 1982.
- Fowkes F. M., Butler B. L., Schissel P., Butler G. B., Delollis N. J., Hartman J. S., Hoffman R. W., Inal O. T., Miller W. G., Tompkins H. G., **Basic Research Needs and Opportunities at the Solid Solid Interface—Adhesion, Abrasion and Polymer-Coatings.** Mater Sci E 53(1):125-136, 1982.
- Frankenthal R. P., **The Anodic Corrosion of Gold in Concentrated Chloride Solutions.** J Elchem So 129(6):1192-1196, 1982.
- Frerking M. A., Langer W. D., **Detection of Pedestal Features in Dark Clouds—Evidence for Formation of Low Mass Stars.** Astrophys J 256(2):523-529, 1982.
- Gedanken A., Robin M. B., Yafet Y., **The Methyl-Iodide Multi-Photon Ionization Spectrum With Intermediate Resonance in the A-Band Region.** J Chem Phys 76(10):4798-4808, 1982.
- Goodwin C. A., Grossman J. W., **MOS Gate Oxide Defects Related to Treatment of Silicon-Nitride Coated Wafers Prior to Local Oxidation.** J Elchem So 129(5):1066-1070, 1982.
- Graedel T. E., Langer W. D., Frerking M. A., **The Kinetic Chemistry of Dense Inter-Stellar Clouds.** Astroph J S 48(3):321-368, 1982.
- Greenblatt M., Murphy D. W., Di Salvo B. J., Eibschutz M., Zahurak S. M., Waszczak J. V., **Preparation and Properties of Fe-Substituted V₆O₁₃.** J Sol St Ch 42(2):212-216, 1982.
- Haddon R. C., **Molecular-Orbital Studies of the Hetero(A,B)Polyenes and Hetero(A,B)Annulenes <(A,B) = (C,C), (C,N), (B,N), (B,O)*.** Pur A Chem 54(5):1129-1142, 1982.
- Hasegawa A., Kodama Y., **Amplification and Reshaping of Optical Solitons A Glass-Fiber.** Optics Lett 7(6):285-287, 1982.
- Hauser J. J., **Electrical and Structural-Properties of Ag-Te, Ag-Se, Ag-S, and Ag-I Diffusion Couples.** J Appl Phys 53(5):3634-3638, 1982.
- Ikezi H., Giannetta R. W., Platzman P. M., **Non-Linear Equilibria of the Electron-Charged Surface of Liquid-Helium.** Phys Rev B 25(7):4488-4494, 1982.
- Jackson S. A., Platzman P. M., **Temperature-Dependent Effective Mass of a Self-Trapped Electron on the Surface of a Liquid-Helium Film.** Phys Rev B 25(7):4886-4889, 1982.
- Jin S., Brasen D., Mahajan S., **Coercivity Mechanisms in Fe-Cr-CO Magnet Alloys.** J Appl Phys 53(6):4300-4303, 1982.
- Johari G. P., Goodby J. W., Johnson G. E., **Molecular Relaxations in a Glass of Cholesteric Liquid-Crystal.** Nature 297(5864):315-317, 1982.
- Johnson M. K., Raye C. L., Foley M. A., Kim J. K., **Pictures and Images—Spatial and Temporal Information Compared.** B Psychon S 19(1):23-26, 1982.
- Kamgar A., **Subthreshold Behavior of Silicon MOSFETs at 4.2-K.** Sol St Elec 25(7):537-539, 1982.
- Khanarian G., Cais R. E., Kometani J. M., Tonelli A. E., **Kerr Effect and Dielectric Study of the Co-Polymer Poly(Styrene-CO-P-Halogenated-Styrene).** Macromolc 15(3):866-869, 1982.
- Kohl P. A., **The High-Speed Electrodeposition of Sn Pb Alloys.** J Elchem So 129(6):1196-1201, 1982.
- Kwick A., Liminga R., Abrahams S. C., **Neutron-Diffraction Structural Study of Pyroelectric Ba(NO₃)₂.H₂O at 298-K, 102-K, and 20-K.** J Chem Phys 76(11):5508-5514, 1982.
- Lake G. R., Norman C., **Triaxiality and the Galactic-Center.** AIP Conf PR1982(83):189-193, 1982.

- Lang D. V., Cohen J. D., Harbison J. P., **Measurement of the Density of Gap States in Hydrogenated Amorphous Silicon by Space-Charge Spectroscopy.** Phys Rev B 25(8):5285-5320, 1982.
- Larson R. G., Davis H. T., **Conducting Backbone in Percolating Bethe Lattices.** J Phys C 15(11):2327-2331, 1982.
- Leamy H. J., **Charge Collection Scanning Electron-Microscopy.** J Appl Phys 53(6):R51-R80, 1982.
- Leon J. S., Pless V., Sloane N. J. A., **Self-Dual Codes Over GF(5).** J Comb Th A 32(2):178-194, 1982.
- Leventhal M., et al., **Time Variable Positron-Annihilation Radiation From the Galactic-Center Direction.** AIP Conf PR1982(83):132-138, 1982.
- Levinson M., Benton J. L., Temkin H., Kimerling L. C., **Defect States in Electron Bombarded N-InP.** Appl Phys L 40(11):990-992, 1982.
- Lewerenz H. J., Aspnes D. E., Miller B., Malm D. L., Heller A., **Semiconductor Interface Characterization in Photoelectrochemical Solar-Cells—The P-InP (111)A Face.** J Am Chem S 104(12):3325-3329, 1982.
- Liebman S. A., Ahlstrom D. H., Starnes W. H., Schilling F. C., **Short-Chain Branching in Polyethylene and Polyvinyl-Chloride Using Pyrolysis Hydrogenation Gas-Chromatography and C-13 Nuclear Magnetic-Resonance Analysis.** J Macr S Ch A17(6):935-950, 1982.
- Marcus R. B., Sheng T. T., Lin P., **Polysilicon SiO₂ Interface Microtexture and Dielectric-Breakdown.** J Elchem So 129(6):1282-1289, 1982.
- Marcus R. B., Sheng T. T., **The Oxidation of Shaped Silicon Surfaces.** J Elchem So 129(6):1278-1282, 1982.
- Mc Crory J. C., Rosamilia J. M., **Modification of the Electrochemical Behavior of Copper by Azole Compounds.** J Elec Chem 136(1):105-118, 1982.
- Meixner A. E., Chen C. H., Geerk J., Schmidt P. H., **High-Energy Electron-Energy-Loss Spectroscopy of Niobium and Niobium-Oxygen Solid-Solutions.** Phys Rev B 25(8):5032-5036, 1982.
- Murayama K., Bosch M. A., **Hot Photo-Luminescence in Amorphous As₂S₃.** Phys Rev B 25(10):6542-6544, 1982.
- Nakahara S., **Direct Observations of Inclusions in Electrodeposited Films by Transmission Electron-Microscopy.** J Elchem So 129(5):C201-C212, 1982.
- Nakahara S., Mc Coy R. J., **Microstructural Determination of Fast Diffusing Species in Thin-Film Diffusion Couples.** Thin Sol Fi 88(3):285-290, 1982.
- Nelson D. F., **Exact Solution for Space-Charge Broadened Packets in Semiconductors.** Phys Rev B 25(8):5267-5275, 1982.
- O'Connor P., Pearsall T. P., Cheng K. Y., Cho A. Y., Hwang J. C. M., Alavi K., **In_{0.53}Ga_{0.47}As FETs With Insulator-Assisted Schottky Gates.** Elec Dev L 3(3):64-66, 1982.
- Odagaki T., Lax M., **Hopping Conduction in One-Dimensional Random Chains.** Molec Cryst 85(1-4):129-136, 1982.
- Patterson G. D., **Depolarized Rayleigh Spectroscopy of Small Alkanes With Picosecond Relaxation-Times.** J Chem Phys 76(9):4356-4360, 1982.
- Peisach J., Powers L., Blumberg W. E., Chance B., **Stellacyanin—Studies of the Metal-Binding Site Using X-Ray Absorption-Spectroscopy.** Biophys J 38(3):277-285, 1982.
- Pierce R. D., Caruso R., Mogab C. J., **Thermal Annealing of Implantation Strain in Bubbles Garnet-Films—Stability of Ion-Implanted Propagation Devices.** J Appl Phys 53(6):4480-4484, 1982.
- Pindak R., Moncton D., **Two-Dimensional Systems.** Phys Today 35(5):57-62, 1982.
- Platzman P. M., **Surface High-Energy Electron-Diffraction.** Phys Rev B 25(8):5046-5049, 1982.
- Poate J. M., Brown W. L., **Laser Annealing of Silicon.** Phys Today 35(6):24-30, 1982.
- Pryde G. A., Kelleher P. G., Hellman M. Y., Wentz R. P., **The Hydrolytic Stability of Some Commercially Available Polycarbonates.** Polym Eng S 22(6):370-375, 1982.
- Rabinovich E. M., Johnson D. W., Mac Chesney J. B., Vogel E. M., **Preparation of Transparent High-Silica Glass Articles From Colloidal Gels.** J Non-Cryst 47(3):435-439, 1982.

- Raghavachari K., A Theoretical-Study of the Reaction Surface for The H₂O-Li₂O System. J Chem Phys 76(11):5421-5426, 1982.
- Reinhart F. K., Logan R. A., Sinclair W. R., Electrooptic Polarization Modulation in Multielectrode Al_xGa_{1-x}As Rib Wave-Guides. IEEE J Q El 18(4):763-766, 1982.
- Reynaud F., Lasserre A., Bonner W. A., Mahajan S., Radiation-Damage in InP Single-Crystals Irradiated Between 200°C and 320°C in a High-Voltage Electron-Microscope (2 MV). Scrip Metal 16(5):567-570, 1982.
- Richton R. E., Farrow L. A., BCl₃ Absorption of CO₂ Laser Lines. J Chem Phys 76(11):5256-5259, 1982.
- Rosenbaum T. F., Rupp L. W., Thomas G. A., Walsh W. M., Chen H. S., Banavar J. R., Littlewood P. B., Electron-Spin Resonance Indication of the Ferromagnet-Spin Glass-Transition in Amorphous FeMn Alloys. Sol St Comm 42(10):725-727, 1982.
- Salathe R. P., Gilgen H. H., Binkert T., Reinhart F. K., Logan R. A., Efficient Electroluminescence From Laser-Irradiated (Al,Ga)As-Heterostructure Diodes. J Appl Phys 53(5):3769-3771, 1982.
- Satija I. I., Hohenberg P. C., Irrelevant Operators and Momentum-Shell Recursion-Relations in D=2+XI-Dimensions. J Stat Phys 28(1):83-97, 1982.
- Schwartz G. P., Sunder W. A., Griffiths, J. E., The In-P-O Phase-Diagram—Construction and Applications. J Elchem So 129(6):1361-1367, 1982.
- Shah J., Pinczuk A., Alexander F. B., Bagley B. G., Excitation Wavelength Dependence of Luminescence Spectra of A-Si-H. Sol St Comm 42(10):717-720, 1982.
- Smith N. V., Kevan S. D., General Instrumentation Considerations in Electron and Ion Spectroscopies Using Synchrotron Radiation. Nucl Instru 195(1-2):309-321, 1982.
- Smolinsky G., Truesdale E. A., Wang D. N. K., Maydan D., Reactive Ion Etching of Silicon-Oxides with Ammonia and Trifluoromethane—The Role of Nitrogen in the Discharge. J Elchem So 129(5):1036-1040, 1982.
- Stamatoff J., Feuer B., Guggenheim H. J., Tellez G., Yamane T., Amplitude of Rippling in the P-Beta Phase of Dipalmitoylphosphatidylcholine Bilayers. Biophys J 38(3):217-226, 1982.
- Stevens J. R., Patterson G. D., Carroll P. J., Alms G. R., The Central Lorentzian in the Depolarized Rayleigh Spectra of Liquid CCl₄ and GeCl₄. J Chem Phys 76(11):5203-5207, 1982.
- Stone J., Chraplyvy A. R., Burrus C. A., Gas-In-Glass—A New Raman-Gain Medium—Molecular-Hydrogen in Solid-Silica Optical Fibers. Optics Lett 7(6):297-299, 1982.
- Sze S. M., Citation Classic—Physics of Semiconductor-Devices. CC/Eng Tech 1982(27):28, 1982.
- Taborek P., Critical Cone in Phonon-Induced Desorption of Helium. Phys Rev L 48(25):1737-1741, 1982.
- Tamargo M. C., Reynolds C. L., Influence of Cooling Rate and Melt Configuration on Rake Lines in the Active Layer of Al_xGa_{1-x}As Lasers. J Cryst Gr 57(2):349-352, 1982.
- Tewksbury S. K., Observation of Discrete Current Levels in Metal-Oxide-Semiconductor Field-Effect Transistors Switched Into Weak Inversion Between 10 and 25 K. Appl Phys L 41(1):62-64, 1982.
- Tewksbury S. K., Transient-Response of N-Channel Metal-Oxide-Semiconductor Field-Effect Transistors During Turnon at 10-25°K. J Appl Phys 53(5):3865-3872, 1982.
- Thurston R. N., Cheng J., Boyd G. D., Optical-Properties of a New Bistable Twisted Nematic Liquid-Crystal Boundary-Layer Display. J Appl Phys 53(6):4463-4479, 1982.
- Tomlinson W. J., Gordon J. P., Smith P. W., Kaplan A. E., Reflection of a Gaussian-Beam at a Non-Linear Interface. Appl Optics 21(11):2041-2051, 1982.
- Tonelli A. E., Conformational Characteristics of Poly(N-Vinyl Pyrrolidone). Polymer 23(5):676-680, 1982.
- Tonelli A. E., Schilling F. C., Cais R. E., F-19 NMR Chemical-Shifts and the Microstructure of Fluoro Polymers. Macromolec 15(3):849-853, 1982.
- Tsang W. T., Logan R. A., Van Der Ziel J. P., A New Lateral Selective-Area Growth

- by Liquid-Phase Epitaxy—The Formation of a Lateral Double-Barrier Buried-Heterostructure Laser.** Appl Phys L 40(11):942-944, 1982.
- Tsui D. C., Stormer H. L., Gossard A. C., **Two-Dimensional Magnetotransport in the Extreme Quantum Limit.** Phys Rev L 48(22):1559-1562, 1982.
- Tu C. W., Chang R. P. H., Schlier A. R., **Surface Etching Kinetics of Hydrogen Plasma on InP.** Appl Phys L 41(1):80-82, 1982.
- Tully J. C., Muhlhausen C. W., Ruby L. R., **Stochastic Trajectory Studies of Chemical Processes at Surfaces.** Ber Bun Ges 86(5):433-437, 1982.
- Tyson J. A., Baum W. A., Kreidl T., **Deep CCD Images of 3C 273.** Astrophys J 257(1):L1-L5, 1982.
- Vasile M. J., Stevie F. A., **Reaction of Atomic Fluorine With Silicon—The Gas-Phase Products.** J Appl Phys 53(5):3799-3805, 1982.
- Wang T. T., **Properties of Piezoelectric Poly (Vinylidene Fluoride) Films Irradiated by Gamma-Rays.** Ferroelectr 41(1-4):347-357, 1982.
- Weber T. A., Annan N. D., **Molecular-Dynamics of Small Alkanes In an External Force-Field.** Molec Phys 46(1):193-209, 1982.
- Whalen M. S., Stone J., **Index of Refraction of N-Type InP at 0.633 μ m and 1.15 μ m Wavelengths as a Function of Carrier Concentration.** J Appl Phys 53(6):4340-4343, 1982.
- Wilson B. A., Kerwin T. P., **Time-Resolved Photo-Luminescence in A-Si-H-Sub-band-Gap Excitation.** Phys Rev B 25(8):5276-5284, 1982.
- Wolff R. S., Carlson E. R., **Masing and Non-Masing Silicon Monoxide Emission From Evolved Stars.** Astrophys J 257(1):161-170, 1982.
- Worlock J. M., **Electrons in Novel Two-Dimensional Structures (Editorial).** Nature 297(5865):360-361, 1982.
- Wudl F., et al., **Ditetramethyltetraselenafulvalenium Fluorosulfonate—The Effect of a Dipolar Anion on the Solid-State Physical-Properties of the (TMTSF)₂X Phase.** J Chem Phys 76(11):5497-5501, 1982.
- Wudl F., **Is There a Relationship Between Aromaticity and Conductivity.** Pur a Chem 54(5):1051-1058, 1982.

SOCIAL AND LIFE SCIENCE

- Arkin W., et al., **The Consequences of a Limited Nuclear War in East and West-Germany.** Ambio 11(2-3):163-173, 1982.
- Fishburn P. C., Gehrlein W. V., **Majority Efficiencies for Simple Voting Procedures—Summary and Interpretation.** Theor Decis 14(2):141-153, 1982.
- Graham R., Buhler J., **The Art of Juggling.** Recherche 13(135):856-857, 1982.
- Lamola A. A., **Quantum Yield and Equilibrium Position of the Configurational Photo-Isomerization of Bilirubin Bound to Human-Serum Albumin.** 35(5):649-654, 1982.
- Samuel A. G., **Phonetic Prototypes.** Perc Psych 31(4):307-314, 1982.
- Weiss B., **The Decline of Late Bronze-Age Civilization as a Possible Response to Climatic-Change.** Clim Change 4(2):173-198, 1982.