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• Papers are listed alphabetically by authors.

A

H. Ågren, B. O. Roos (Chemical Center, Lund, Sweden), P. S. Bagus (RES San Jose, CA), U. Gelius, P.-Å. Malmquist, S. Svensson, R. Maripuu, and K. Siegbahn (University of Uppsala, Sweden), **Multiple excitations and charge transfer in the ESCA $NIS(NO_2)$ spectrum of paranitroaniline. A theoretical and experimental study**, *Journal of Chemical Physics* **77**, No. 8, 3893-3901 (1982).

K. Y. Ahn, T. H. DiStefano, S. R. Herd, N. J. Mazzeo, and K. N. Tu (RES Yorktown Hts., NY), **High-sensitivity silicide films for optical recording**, *Journal of Applied Physics* **53**, No. 9, 6360-6364 (1982).

C. J. Anderson (RES Yorktown Hts., NY), **Electrical properties of an input-output cable for Josephson applications**, *Review of Scientific Instruments* **53**, No. 11, 1663-1666 (1982).

H. Aspden (IBM United Kingdom, Hursley), **Mirror Reflection Effects in Light Speed Anisotropy Tests**, *Speculations in Science and Technology* **5**, No. 4, 421-431 (1982).

H. Aspden (IBM United Kingdom), **The Ether—An Assessment**, *Wireless World* **88**, No. 1561, 37-39 (1982).

M. Ya. Azbel (RES Yorktown Hts., NY), **Anderson-localization dimensionality dependence: Further comments**, *Physical Review B* **26**, No. 8, 4735-4738 (1982).

B

S. E. Babcock (Massachusetts Institute of Technology, Cambridge, MA) and K. N. Tu (RES Yorktown Hts., NY), **Titanium-tungsten contacts to Si: The effects of alloying on Schottky contact and on silicide formation**, *Journal of Applied Physics* **53**, No. 10, 6898-6905 (1982).

J. E. E. Baglin (RES Yorktown Hts., NY), H. A. Atwater (Massachusetts Institute of Technology, Cambridge, MA), D. Gupta, and F. M. d'Heurle (RES Yorktown Hts., NY), **Radioactive Ni Tracer Study of the Nickel Silicide Growth Mechanism**, *Thin Solid Films* **93**, No. 3/4, 255-264 (1982).

F. Barz, J. G. Gordon II, M. R. Philpott, and M. J. Weaver (RES San Jose, CA), **Effect of Laser Illumination During Oxidation-Reduction Cycles Upon Surface-Enhanced Raman Scattering from Silver Electrodes**, *Chemical Physics Letters* **91**, No. 4, 291-295 (1982).

I. P. Batra (RES San Jose, CA), **Electronic structure of $\alpha-Al_2O_3$** , *Journal of Physics C* **15**, No. 26, 5399-5410 (1982).

P. E. Batson (RES Yorktown Hts., NY), **A New Surface Plasmon Resonance in Clusters of Small Aluminum Spheres**, *Ultramicroscopy* **9**, No. 3, 277-282 (1982).

C. W. Bauschlicher, Jr. (Polyatomic Research Institute, Mountain View, CA), P. S. Bagus (RES San Jose, CA), and B. N. Cox (Rockwell International Science Center, Thousand Oaks, CA), **On hybridization and bonding in the alkaline earths: Be, Mg, and Ca**, *Journal of Chemical Physics* **77**, No. 8, 4032-4038 (1982).

C. W. Bauschlicher, Jr. (Polyatomic Research Institute, Mountain View, CA), B. H. Lengsfeld III, and B. Liu (RES San Jose, CA), **The dissociation energy of MgO**, *Journal of Chemical Physics* **77**, No. 8, 4084-4087 (1982).

G. Baym, B. L. Friman (University of Illinois, Urbana-Champaign), and G. Grinstein (RES Yorktown Hts., NY), **Fluctuations and Long-Range Order in Finite-Temperature Pion Condensates**, *Nuclear Physics B* **210**, No. 2, 193-209 (1982).

D. Beech (IBM United Kingdom, Hursley), **Modularity of Computer Languages, Software—Practice and Experience** **12**, No. 10, 929-958 (1982).

C. H. Bennett (RES Yorktown Hts., NY), **The Thermodynamics of Computation—A Review**, *International Journal of Theoretical Physics* **21**, No. 12, 905-940 (1982).

J. Q. Broughton (Institut für Festkörperphysik, Federal Republic of Germany) and P. S. Bagus (RES San Jose, CA), **The stability of RbH_2O and $RbHF$: A Hartree-Fock study**, *Journal of Chemical Physics* **77**, No. 7, 3627-3634 (1982).

C. R. Brundle (RES San Jose, CA), **Ultrahigh Vacuum Techniques of Surface Characterization**, *ACS Symposium Series*, No. 199, 13-32 (1982).

R. G. Bryant (University of Minnesota, Minneapolis), R. D. Brown, and S. H. Koenig (RES Yorktown Hts., NY), **Nuclear Magnetic Relaxation Dispersion in Monoclinic Lysozyme Crystals**, *Biophysical Chemistry* **16**, No. 2, 133-137 (1982).

G. Burns, T. N. Theis, G. V. Chandrashekar, and F. H. Dacol (RES Yorktown Hts., NY), **Vibrational modes in $K_{1-x}Na_xZn\beta$ -gallate**, *Physical Review B* **26**, No. 6, 3309-3311 (1982).

D. P. Burum, R. M. MacFarlane, R. M. Shelby (RES San Jose, CA), and L. Mueller (California Institute of Technology, Pasadena), **Temperature Dependence of ^{27}Al NMR in YAlO_3** , *Physics Letters* **91A**, No. 9, 465–468 (1982).

C

D. R. Campbell, S. Mader, and W. K. Chu (GTD East Fishkill, NY), **Effects of Grain Boundaries on the Resistivity of Co-Sputtered WSi_2 Films**, *Thin Solid Films* **93**, No. 3/4, 341–346 (1982).

J. M. Carroll (RES Yorktown Hts., NY), **The Adventure of Getting to Know a Computer**, *Computer* **15**, No. 11, 49–58 (1982).

G. J. Chaitin (RES Yorktown Hts., NY), **Gödel's Theorem and Information**, *International Journal of Theoretical Physics* **21**, No. 12, 941–954 (1982).

C.-A. Chang (RES Yorktown Hts., NY), **Competing ambient effects on the inter-diffusion in Pt/Ni/Al films**, *Journal of Applied Physics* **53**, No. 10, 7088–7091 (1982).

C.-A. Chang (RES Yorktown Hts., NY), **Empirical Equations for the Bond Energies and Vibrational Frequencies of Chemisorptive Bonds on Surfaces**, *Chemical Physics Letters* **91**, No. 4, 277–279 (1982).

C.-A. Chang (RES Yorktown Hts., NY), **Reduced Cu-Cr mixing and reduced Pt-Cu interdiffusion by oxygen in Cu/Cr and Pt/Cu/Cr thin films**, *Journal of Applied Physics* **53**, No. 10, 7092–7094 (1982).

H. Chang (RES Yorktown Hts., NY), **Magnetic-Bubble Conservative Logic**, *International Journal of Theoretical Physics* **21**, No. 12, 955–960 (1982).

M. Chen, V. Marrello, and U. G. Gerber (RES San Jose, CA), **Ablative hole formation process in thin tellurium and tellurium-alloy films**, *Applied Physics Letters* **41**, No. 9, 894–896 (1982).

W. T. Chen, E. Sacher, D. H. Strope, and J. J. Woods (SPD Endicott, NY), **Piezo- and Pyroelectric Properties of Polyvinylidene Fluoride**, *Journal of Macromolecular Science—Physics B* **21**, No. 3, 397–415 (1982).

K. Christmann and J. E. Demuth (RES Yorktown Hts., NY), **Interaction of Inert Gases with a Nickel (100) Surface I. Adsorption of Xenon**, *Surface Science* **120**, No. 2, 291–318 (1982).

D. Coppersmith (Hungarian Academy of Science, Budapest) and P. Erdos (RES Yorktown Hts., NY), **n Points in the Plane, n Distinct Distances**, *American Mathematical Monthly* **89**, No. 8, 604–605 (1982).

D

W. A. Dahmen (University of Bonn, Federal Republic of Germany) and C. A. Micchelli (RES Yorktown Hts., NY), **On the Linear Independence of Multivariate B-Splines, I. Triangulation of Simplices**, *SIAM Journal on Numerical Analysis* **19**, No. 5, 993–1012 (1982).

S. K. Das (RES Yorktown Hts., NY), **Some Experiments in Discrete Utterance Recognition**, *IEEE Transactions on Acoustics, Speech and Signal Processing ASSP-30*, No. 5, 766–770 (1982).

E

M. Eizenberg (Technion Institute, Haifa, Israel), R. D. Thompson, and K. N. Tu (RES Yorktown Hts., NY), **A study of vanadium as diffusion barrier between aluminum and gadolinium silicide contacts**, *Journal of Applied Physics* **53**, No. 10, 6891–6897 (1982).

M. Eizenberg (Technion Institute, Haifa, Israel) and K. N. Tu (RES Yorktown Hts., NY), **Formation and Schottky behavior of manganese silicides on n -type silicon**, *Journal of Applied Physics* **53**, No. 10, 6885–6890 (1982).

L. M. Ephrath and E. J. Petrillo (RES Yorktown Hts., NY), **Parameter and Reactor Dependence of Selective Oxide RIE in CF_4+H_2** , *Journal of the Electrochemical Society* **129**, No. 10, 2282–2287 (1982).

P. W. Epperlein (RES Zurich, Switzerland), H. Seifert, and R. P. Huebener (Universitat Tübingen, Federal Republic of Germany), **Two-Dimensional Imaging of the Current-Density Distribution in Superconducting Tunnel Junctions**, *Physics Letters* **92A**, No. 3, 146–150 (1982).

F

P. L. Fitzgerald (RES San Jose, CA), **An English Bill of Rights—Some Observations from Her Majesty's Former Colonies in America**, *Georgetown Law Journal* **70**, No. 5, 1229–1301 (1982).

G

R. K. Gilpin and M. H. Gaudet (IBM Instruments Inc., Danbury, CT), **Rapid High Performance Liquid Chromatographic Determination of Acetaminophen in Dosage Form Using a Totally Aqueous Mobile Phase**, *Journal of Chromatography* **248**, No. 1, 160–164 (1982).

S. Gilpin (DSD Kingston, NY), **You've Been Promoted to Manager: Now What**, *Journal of Metals* **34**, No. 9, 48–51 (1982).

D. Goodman (RES Yorktown Hts., NY), **Scalar-diffraction line response**, *Journal of the Optical Society of America* **72**, No. 11, 1560–1563 (1982).

D. S. Goodman (RES Yorktown Hts., NY), **Some methods for producing straight achromatic white-light fringes of variable contrast and constant average irradiance**, *Applied Optics* **21**, No. 21, 3876–3878 (1982).

W. Göpel (Montana State University, Bozeman), J. Pollmann (Universitat Dortmund, Federal Republic of Germany), I. Ivanov, and B. Reihl (RES Yorktown Hts., NY), **Angle-resolved photoemission from polar and nonpolar zinc oxide surfaces**, *Physical Review B* **26**, No. 6, 3144–3150 (1982).

J. F. Graczyk (Deceased), K. N. Tu (RES Yorktown Hts., NY), B. Y. Tsaur (Lincoln Laboratory, Lexington, MA), and J. W. Mayer (Cornell University, Ithaca, NY), **Ion-beam-induced metastable Pt_2Si_3 phase. III. Structure and diffusion in amorphous Pt_2Si_3** , *Journal of Applied Physics* **53**, No. 10, 6772–6780 (1982).

J. Grimblot and J. M. Eldridge (RES San Jose, CA), **I. Interaction of Al Films with O₂ at Low Pressures**, *Journal of the Electrochemical Society* **129**, No. 10, 2366–2368 (1982).

J. Grimblot and J. M. Eldridge (RES San Jose, CA), **II. Oxidation of Al Films**, *Journal of the Electrochemical Society* **129**, No. 10, 2369–2372 (1982).

G. Grinstein (RES Yorktown Hts., NY) and R. A. Pelcovits (Brown University, Providence, RI), **Smectic-A—C transition in three dimensions**, *Physical Review A* **26**, No. 4, 2196–2217 (1982).

G. Güntherodt, W. A. Thompson, F. Holtzberg (RES Yorktown Hts., NY) and Z. Fisk (Los Alamos Scientific Laboratory, NM), **Electron Tunneling into Intermediate-Valence Materials**, *Physical Review Letters* **49**, No. 14, 1030–1033 (1982).

H

R. E. Harris (National Bureau of Standards, Boulder, CO), P. Wolf, and D. F. Moore (RES Zurich, Switzerland), **Electronically Adjustable Delay for Josephson Technology**, *IEEE Electron Device Letters* **3**, No. 9, 261–263 (1982).

G. Hillman (CHQ Armonk, NY), **Echos—IBM Environmental, Chemical and Occupational Evaluation System**, *Journal of Occupational Medicine* **24**, No. 10, 827–835 (1982).

F. J. Himpsel and Th. Fauster (RES Yorktown Hts., NY), **Empty Orbitals of Adsorbates Determined by Inverse Ultraviolet Photoemission**, *Physical Review Letters* **49**, No. 21, 1583–1586 (1982).

U. T. Höchli, H. E. Weibel (RES Zurich, Switzerland), and W. Rehwald (Laboratories RCA Ltd., Zurich, Switzerland), **Elastic and dielectric dispersion in the dipole glass K_{1-x}Li_xTaO₃**, *Journal of Physics C* **15**, No. 30, 6129–6140 (1982).

H.-C. W. Huang (GTD East Fishkill, NY), **Ring formation of Kirkendall voids in Pb-alloy thin-film diffusion couples**, *Applied Physics Letters* **41**, No. 8, 724–726 (1982).

H.-C. W. Huang, C. F. Aliotta, and P. S. Ho (RES Yorktown Hts., NY), **Electron Beam Study of Silicide Schottky Diodes**, *Thin Solid Films* **93**, No. 3/4, 309–319 (1982).

I

Y. Imry (RES Yorktown Hts., NY), Y. Gefen, and D. J. Bergman (Tel Aviv University, Israel), **Dielectric anomalies near the Anderson metal-insulator transition**, *Physical Review B* **26**, No. 6, 3436–3439 (1982).

J

D. W. Jepsen, F. J. Himpsel, and D. E. Eastman (RES Yorktown Hts., NY), **Single-step-model analysis of angle-resolved photoemission from Ni(110) and Cu(100)**, *Physical Review B* **26**, No. 8, 4039–4051 (1982).

M. Johnson (RES Yorktown Hts., NY), **Suppressed turn-on laser regenerative optoelectronic amplifier**, *Applied Optics* **21**, No. 21, 3800–3802 (1982).

K

P. H. Kasal (IBM Instruments, Inc., Danbury, CT), **Electron Spin Resonance Study of Sodium Atom-Acetylene Complex: Evidence for Acetylene-Vinylidene Rearrangement**, *Journal of Physical Chemistry* **86**, No. 21, 4092–4094 (1982).

P. H. Kasal and R. M. Gaura (IBM Instruments, Inc., Danbury, CT), **Electron Spin Resonance Study of Nitric Oxide Adsorbed in Na-A Zeolite**, *Journal of Physical Chemistry* **86**, No. 21, 4257–4260 (1982).

R. Kelly (RES Yorktown Hts., NY), **On the Nature of the Phases Formed When Metals are Implanted with Oxygen or Nitrogen**, *Radiation Effects* **64**, No. 1–4, 205–220 (1982).

K. Kleinermanns (Max-Planck-Institut für Strömungsforschung, Göttingen, Federal Republic of Germany) and A. C. Luntz (RES San Jose, CA), **Molecular beam-laser induced fluorescence experiments on hydrogen abstraction from amines by O(³P)**, *Journal of Chemical Physics* **77**, No. 7, 3537–3539 (1982).

K. Kleinermanns (Max-Planck-Institut für Strömungsforschung, Göttingen, Federal Republic of Germany) and A. C. Luntz (RES San Jose, CA), **Molecular beam-laser induced fluorescence experiments on the reaction of O(³P) with CH₃CHO**, *Journal of Chemical Physics* **77**, No. 7, 3774–3775 (1982).

K. Kleinermanns (Max-Planck-Institut für Strömungsforschung, Göttingen, Federal Republic of Germany) and A. C. Luntz (RES San Jose, CA), **The chemical dynamics of hydrogen atom abstraction from unsaturated hydrocarbons by O(³P)**, *Journal of Chemical Physics* **77**, No. 7, 3533–3536 (1982).

A. W. Kleinsasser, J. M. E. Harper, J. J. Cuomo, and M. Heiblum (RES Yorktown Hts., NY), **Oxidation Processes Using Ion Beams**, *Thin Solid Films* **95**, No. 4, 333–342 (1982).

W. Krakow (RES Yorktown Hts., NY), **The Direct Observation of Atomic Surface Structure and Inclined Planar Defects in Au(111) Films**, *Thin Solid Films* **93**, No. 3/4, 235–253 (1982).

R. M. Kroeker and J. Pacansky (RES San Jose, CA), **Observation of electron beam induced chemistry by tunneling spectroscopy**, *Journal of Chemical Physics* **77**, No. 10, 4955–4956 (1982).

L

S. K. Lai (RES Yorktown Hts., NY), **Effects of gate metals on interface effects in metal oxide semiconductor systems after electron trapping**, *Journal of Applied Physics* **53**, No. 10, 7104–7105 (1982).

M. H. Lee, J. M. Eldridge, L. Licican, and R. E. Richards (RES San Jose, CA), **Electrochemical Test to Evaluate Passivation Layers: Overcoats of Si in Ink**, *Journal of the Electrochemical Society* **129**, No. 10, 2174–2178 (1982).

B. H. Lengsfeld III (RES San Jose, CA), **General second-order MCSCF theory for large CI expansions**, *Journal of Chemical Physics* **77**, No. 8, 4073–4083 (1982).

I. Lerner and J. M. Eldridge (RES San Jose, CA), **Effects of Several Parameters on the Corrosion Rates of Al Conductors in Integrated Circuits**, *Journal of the Electrochemical Society* **129**, No. 10, 2270–2273 (1982).

D. D. Ling (Harvard University, Cambridge, MA) and C. D. Gelatt, Jr. (RES Yorktown Hts., NY), **Charge fluctuations in random binary alloys**, *Physical Review B* **26**, No. 6, 2819–2848 (1982).

J. R. Lloyd (GTD East Fishkill, NY) and S. Nakahara (Bell Laboratories, Murray Hill, NJ), **Formation and Growth of Voids and/or Gas Bubbles in Thin Films**, *Thin Solid Films* **93**, No. 3/4, 281–286 (1982).

J. R. Lloyd, P. M. Smith, and G. S. Prokop (GTD East Fishkill, NY), **The Role of Metal and Passivation Defects in Electromigration-Induced Damage in Thin Film Conductors**, *Thin Solid Films* **93**, No. 3/4, 385–395 (1982).

M. Lozada-Cassou, R. Saavedra-Barrera (Universidad Autónoma Metropolitana/Izapa, México City, México), and D. Henderson (RES San Jose, CA), **The application of the hypernetted chain approximation to the electrical double layer: Comparison with Monte Carlo results for symmetric salts**, *Journal of Chemical Physics* **77**, No. 10, 5150–5156 (1982).

M

J. C. Maan, Ch. Uilein (Max-Planck-Institut für Festkörperforschung, Grenoble, France), L. L. Chang, and L. Esaki (RES Yorktown Hts., NY), **Hybrid Cyclotron-Intersubband Resonance in Thin InAs Layers Confined Between GaSb**, *Solid State Communications* **44**, No. 5, 653–656 (1982).

J. C. Marinace and R. C. McGibbon (RES Yorktown Hts., NY), **Titanium Dioxide Films to Improve Photoresist Adhesion**, *Journal of the Electrochemical Society* **129**, No. 10, 2389–2390 (1982).

R. A. McCorkle (RES Yorktown Hts., NY), **Quasi-equilibrium beam-plasma dynamics**, *Applied Physics Letters* **41**, No. 6, 522–523 (1982).

F. Mintzer (RES Yorktown Hts., NY), **On Half-Band, Third-Band, and Nth-Band FIR Filters and Their Design**, *IEEE Transactions on Acoustics, Speech and Signal Processing ASSP-30*, No. 5, 734–738 (1982).

P. D. Murphy (IBM Instruments Inc., Danbury, CT), **Elimination of the Power Mismatch Requirements in Cross-Polarization NMR**, *Journal of Magnetic Resonance* **49**, No. 2, 368–370 (1982).

N

C. M. Newman (University of Arizona, Tucson) and L. S. Schulman (RES Yorktown Hts., NY), **Asymptotic symmetry: Enhancement and stability**, *Physical Review B* **26**, No. 7, 3910–3914 (1982).

O

J. S. Ottmann (IBM Germany, Boeblingen), **DASD Sharing in DOS/VSE, Software—Practice and Experience** **12**, No. 9, 835–842 (1982).

P. Otto, J. Ladik (University of Erlangen-Nürnberg, Federal Republic of Germany), G. Corongiu (DPPG Poughkeepsie, NY), S. Suhai, and W. Förner (University of Erlangen-Nürnberg, Federal Republic of Germany), **Model calculation of the effect of hydration on the energy band structure of a nucleotide base stack**, *Journal of Chemical Physics* **77**, No. 10, 5026–5029 (1982).

P

J. W. Philbrick and W. F. Herr (IBM Instruments Inc., Danbury, CT), **Data System and Software for a Fourier Transform Infrared Spectrometer**, *Journal of the Association of Office Analytical Chemists* **65**, No. 5, 1271–1278 (1982).

P. J. Price (RES Yorktown Hts., NY), **Hot electrons in a GaAs heterolayer at low temperature**, *Journal of Applied Physics* **53**, No. 10, 6863–6866 (1982).

R

A. Rein and P. Wilks (IBM Instruments Inc., Charlotte, NC), **Cylindrical Internal Reflection Cell**, *American Laboratory* **14**, No. 10, 152+ (1982).

D. Rytz (Swiss Federal Institute of Technology, Lausanne, Switzerland) and H. J. Scheel (RES Zurich, Switzerland), **Crystal Growth of $\text{KTa}_{1-x}\text{Nb}_x\text{O}_3$ ($0 < x \leq 0.04$) Solid Solutions by a Slow-Cooling Method**, *Journal of Crystal Growth* **59**, No. 3, 468–484 (1982).

S

E. Sacher and J. R. Susko (GTD Endicott, NY), **Water Permeation of Polymer Films. IV. Teflon FEP**, *Journal of Applied Polymer Science* **27**, No. 10, 3893–3902 (1982).

O. Sahni (RES Yorktown Hts., NY), **A Refreshed Write-Through Mode for a Direct View Storage Tube with an Electroluminescent Faceplate**, *IEEE Electron Device Letters* **EDL-3**, No. 10, 303–304 (1982).

T. Schneider and E. Stoll (RES Zurich, Switzerland), **Magnetic field effects in the spin dynamics of ferro- and antiferromagnetic Ising-type chains with $s = 1/2$** , *Physical Review B* **26**, No. 7, 3846–3855 (1982).

W. Schwarz, K.-M. Dangel (RES San Jose, CA), G. Jones II (Boston University, MA), and J. Bargon (RES San Jose, CA), **CIDNP Studies of Photoinitiated Electron-Transfer Reactions. Sensitized Isomerization of an Electron Acceptor Norbornadiene**, *Journal of the American Chemical Society* **104**, No. 21, 5686–5689 (1982).

H. Seki and T. J. Chuang (RES San Jose, CA), **The Detection by SERS of Resonantly Excited Desorption of Pyridine from Silver Island Films by IR Laser Absorption**, *Solid State Communications* **44**, No. 4, 473–475 (1982).

P. Sigmund (RES Yorktown Hts., NY), **Kinetic theory of particle stopping in a medium with internal motion**, *Physical Review A* **26**, No. 5, 2497–2517 (1982).

A. A. Smith, Jr. (DSD Poughkeepsie, NY), **Standard-Site Method for Determining Antenna Factors**, *IEEE Transactions on Electromagnetic Compatibility* **EMC-24**, No. 3, 316–322 (1982).

A. A. Smith, Jr. (DSD Poughkeepsie, NY), R. F. German (IPD Boulder, CO), and J. B. Pate (CPD Research Triangle Park, NC), **Calculation of Site Attenuation from Antenna Factors**, *IEEE Transactions on Electromagnetic Compatibility EMC-24*, No. 3, 301–316 (1982).

A. H. Sporer (RES San Jose, CA), **The Impact of Digital Storage on Micrographic Storage**, *Journal of Applied Photography* 8, No. 5, 200–203 (1982).

R. Srinivasan and V. Mayne-Banton (RES Yorktown Hts., NY), **Self-developing photoetching of poly(ethylene terephthalate) films by far-ultraviolet excimer laser radiation**, *Applied Physics Letters* 41, No. 6, 576–578 (1982).

P. E. Stuckert (RES Yorktown Hts., NY), **The IEEE/IEC Pulse Standards—Basic Tools for Waveform Analysis**, *IEEE Transactions on Instrumentation and Measurement IM-31*, No. 3, 192–198 (1982).

R. H. Swendsen (RES Zurich, Switzerland), **First- and Second-Order Phase Transitions in the $d = 2$ XY Model**, *Physical Review Letters* 49, No. 18, 1302–1305 (1982).

A. F. Szewczyk (GTD East Fishkill, NY) and J. Gurland (Brown University, Providence, RI), **A Study of the Deformation and Fracture of a Dual Phase Steel**, *Metallurgical Transactions* 13A, No. 10, 1821–1826 (1982).

T

D. M. Taub (IBM United Kingdom, Hursley), **Worst-Case Arbitration Time in S-100-Type Computer Bus Systems**, *Electronics Letters* 18, No. 19, 833–835 (1982).

R. D. Thompson and K. N. Tu (RES Yorktown Hts., NY), **Comparison of the Three Classes (Rare Earth, Refractory and Near-Noble) of Silicide Contacts**, *Thin Solid Films* 93, No. 3/4, 265–274 (1982).

R. Twieg, A. Azema, K. Jain, and Y. Y. Cheng (RES San Jose, CA), **Organic Materials for Non-Linear Optics. Nitropyridine Derivatives**, *Chemical Physics Letters* 92, No. 2, 208–211 (1982).

V

J. A. van Vechten (RES Yorktown Hts., NY), **Intermixing of an AlAs-GaAs superlattice by Zn diffusion**, *Journal of Applied Physics* 53, No. 10, 7082–7084 (1982).

D. K. Verma and J. T. Berry (IBM Rochester, MN), **Microstructural and Macrostructural Modeling of the Fracture Behavior of Pearlitic Gray Irons**, *Journal of Engineering Materials and Technology* 104, No. 4, 262–266 (1982).

R. F. Voss, R. B. Laibowitz, and E. I. Alessandrini (RES Yorktown Hts., NY), **Fractal (Scaling) Clusters in Thin Gold Films Near the Percolation Threshold**, *Physical Review Letters* 49, No. 19, 1441–1444 (1982).

W

D. Westphal, A. Goldmann (University of Duisburg, Federal Republic of Germany), F. Jona (State University of New York, Stony Brook), and P. M. Marcus (RES Yorktown Hts., NY), **Atomic Structure of $\text{Cu}[001](2 \times 2)$ -Cl**, *Solid State Communications* 44, No. 5, 685–686 (1982).

M. Wittmer (Swiss Federal Institute of Technology, Zurich, Switzerland), C.-Y. Ting (RES Yorktown Hts., NY), I. Ohdomari (Waseda University, Tokyo, Japan), and K. N. Tu (RES Yorktown Hts., NY), **Redistribution of As during Pd_2Si formation: Ion channeling measurements**, *Journal of Applied Physics* 53, No. 10, 6781–6787 (1982).

Y

K. H. Yang (RES Yorktown Hts., NY), **On the determination of liquid crystal-to-wall anchoring anisotropy by the surface-plasmon polariton technique**, *Journal of Applied Physics* 53, No. 10, 6742–6745 (1982).

M. L. Yu (RES Yorktown Hts., NY), **Matrix effects in the work-function dependence of negative-secondary-ion emission**, *Physical Review B* 26, No. 8, 4731–4734 (1982).

Z

W. Zapka, P. Pokrowsky, and A. C. Tam (RES San Jose, CA), **Noncontact optoacoustic monitoring of flame temperature profiles**, *Optics Letters* 7, No. 10, 477–479 (1982).