

Enid Sichel's Patents

1. Karl von Reden and Enid Sichel, "An Ion Stripper Device Made of Carbon Nanotubes or Fullerenes," U. S. patent #7,586,098 (2009).
2. Brian M. Ditchek, Adrian I. Cogan, Enid K. Sichel, and Walter L. Bloss III, "Semiconductor Device with Conductive Rectifying Rods," U.S. Patent #4,984,037 (1991).
3. Enid Keil Sichel, "Digital Storage," U.S. Patent #4,855,985 (1989).
4. Michael Rubner and Enid Keil Sichel, "Measurement of Strain Employing a Piezoelectric Blend of a Doped Acetylene Polymer and an Elastomer," U.S. Patent #4,808,336 (1989).
5. Michael Rubner and Enid Keil Sichel, "Measurement of Strain Employing a Piezoresistive Blend of a Doped Acetylene Polymer and an Elastomer; Pressure Transducer," U.S. Patent #4,708,019 (1987).
6. Enid Keil Sichel, "Optical Filters Comprising Pyrolyzed Polyimide Films and Lamps," U.S. Patent #4,425,527 (1984).
7. Enid Keil Sichel, "Electrochromic Cermet Material and Device Including the Same," U.S. Patent #4,110,259 (1978).

Enid Sichel's technical publication list

1. "Carbon nanotube foils for electron stripping in tandem accelerators," K. von Reden, M. Zhang, M. Meigs, E. Sichel, S. Fang, R.H. Baughman, Nuclear Instruments and Methods in Physics Research **B 261**, 44 (2007).
2. "A Low Power, Low Cost, Underwater Optical Communication System," M. Tivey, P. Fucile, and E. Sichel, Ridge 2000 Events, Vol. 2, Number 1, 27 (2004).
3. "Adhesives to Attach Juvenile Bay Scallops to Plastic Netting in Aquaculture," E.K. Sichel and R.C. Karney, J. of Shellfish Research **22**, 401 (2003).
4. "A Marine Technology Project for High School and College Students," Enid K. Sichel and Maurice A. Tivey, Current: The Journal of Marine Education, National Marine Educators Association, **19**, number 3, 7 (2003).
5. "Alignment Layer Relaxation-A Technique for Assessing Thermal Transitions in Polymer Films," D.C. Rich, E.K. Sichel, and P. Cebe, Polymer **39**, 7135 (1998).
6. "Effect of Cure Conditions on Probamide 32 Polyamide-imide," D.C. Rich, E.K. Sichel, and P. Cebe, J. Applied Polymer Sci. **63**, 1113 (1997).
7. "High Power Electrochemical Capacitors Based on Carbon Nanotube Electrodes," Chunming Niu, E.K. Sichel, R. Hoch, D. Moy, and H. Tennent, Appl. Phys. Letters **70**, 1480 (1997).
8. "Alignment of Nematic Liquid Crystals on Photo-Irradiated Polyamide- imide Surface," D.C. Rich, E.K. Sichel, and P. Cebe, J. Appl. Polymer Sci. **65**, 1151 (1997).
9. "Curing Study of a Preimidized Photosensitive Polyimide," D.C. Rich, E.K. Sichel, and P. Cebe, Polymer Engineering and Science **36**, 2179 (1996).
10. "High power electrochemical capacitors based on carbon nanotube electrodes," C. Niu, E.K. Sichel, R. Hoch, D. Moy, and H. Tennent, Proceedings of the 6th International Seminar on Double Layer Capacitors, (Florida Ed. Seminars, Inc., Dec. 1996).
11. "XPS Study of Polyimide H-Film after Heat-Treatment and Laser- Processing," P.V. Nagarkar and E.K. Sichel, J. Electrochem. Soc. **136** , 2979 (1989).

12. "Evaluation and Characterization of Novel High Dielectric Constant Heterogeneous Polymer Thin Films," M.F. Rubner and E.K. Sichel, final report to U.S. Army Electronics Technology and Devices Lab, Contract DAAL03-86-D-0001 (1989).
13. "The Hall Effect in a-Si:H and a-Si:H/a-Ge:H Superlattices," E.K. Sichel, L. Greber, and K. Wang, *Appl. Phys. Lett.* **52**, 1074 (1988).
14. "Reverse-Field Reciprocity for Conducting Specimens in Magnetic Fields," H.H. Sample, W.J. Bruno, S.B. Sample, and E.K. Sichel, *J. Appl. Phys.* **61**, 1079 (1987).
15. "Equipotential Distribution in the Quantum Hall Effect in GaAs-AlGaAs Heterostructures," E.K. Sichel, M.L. Knowles, and H.H. Sample, *J. of Physics C* **19**, 5695 (1986).
16. "Equipotential Distribution in the Quantum Hall Effect," E.K. Sichel, H.H. Sample, and J.P. Salerno, *Phys. Rev. B* **32**, 6975 (1985).
17. "Giant Dielectric Constant of IrCl₆-Doped Polyacetylene," E.K. Sichel, M.F. Rubner, M.A. Druy, J.I. Gittleman, and S. Bozowski, *Phys. Rev. B* **29**, 6716 (1984).
18. "Does Doping Method Influence the Electrical Properties of Polyacetylene?," M.A. Druy, M.F. Rubner, E.K. Sichel, S.K. Tripathy, T. Emma, and P. Cukor, *Mol. Cryst. Liq. Cryst.* **105**, 109 (1984).
19. "Electrical Properties of Polyacetylene/Polybutadiene Blends," E.K. Sichel and M.F. Rubner, *J. Polymer Sci., Polymer Phys. Ed.* **23**, 1629 (1984).
20. "Properties of Polyacetylene Doped with Hexachloroiridate," M.F. Rubner, M.A. Druy, S.K. Tripathy, E.K. Sichel, J. Georger, Jr., P. Cholewa, M. Knowles, and P. Cukor, *J. of Polymer Science (Polym. Symp. Ed.)* **70**, 45 (1983).
21. "Magnetic Phase Transition, Aggregate Formation, and Electrical Conductivity in FeCl₃-doped Polyacetylene," E.K. Sichel, M.F. Rubner, J. Georger, Jr., G.C. Papaefthymiou, S. Ofer, and R.B. Frankel, *Phys. Rev. B* **28**, 6589 (1983).
22. "Electrical Properties of Carbon-Polymer Composites," E.K. Sichel, Ping Sheng, and J.I. Gittleman, *J. of Electronic Materials* **11**, 599 (1982).
23. "The Hall Effect in Granular Metal Films Near the Percolation Threshold," E.K. Sichel and J.I. Gittleman, *Solid State Commun.* **42**, 75 (1982).
24. **BOOK:** *Carbon Black Polymer Composites*, E.K. Sichel, editor; Marcel Dekker, Inc., N.Y., 1982 (and Chapter 2, "Tunneling Conduction in Carbon Black-Polymer Composites," E.K. Sichel, J.I. Gittleman, and Ping Sheng).
25. "Effect of Dopant-Molecule Size on the Electrical Conductivity of Polyacetylene," E.K. Sichel, M. Knowles, M. Rubner and J. Georger, *Phys. Rev. B* **25**, 5574 (1982).
26. "Electrical Conduction in Heat-Treated Polyimide," E.K. Sichel and T. Emma, *Solid State Commun.* **41**, 747 (1982).
27. "Electrical Properties of Polyacetylene Doped with Dihydrogen Hexachloroiridate," Michael Rubner, Jacque Georger, Jr., and Enid Sichel, *J. Chem. Soc., Chem. Commun.*, 507 (1982). Comm. 1386.
28. "Properties of Polyacetylene Doped with I, Br, IrCl₆, and FeCl₃," E.K. Sichel, M.F. Rubner, and S.K. Tripathy, *Phys. Rev. B* **26**, 6719 (1982).
29. "Are Pyrolyzed Polyimides Conducting Polymers?," J.I. Gittleman and E.K. Sichel, *J. of Electronic Materials* **10**, 327 (1981).
30. "Observation of Fluctuation Modulation of Tunnel Junctions by applied ac stress in Carbon-Polyvinyl Chloride Composites," E.K. Sichel, Ping Sheng, J.I. Gittleman, and S. Bowzowski, *Phys. Rev. B* **24**, 6131 (1981).
31. "Electrical Conduction in Carbon-Polymer Composites," E.K. Sichel, *Appl. Phys. Comm.*

- 1**, 83 (1981).
- 32. "Electron Resonance Study of Hydrogen-Containing WO_3 Films," J.I. Pifer and E.K. Sichel, *J. of Electronic Materials* **9**, 129 (1980).
 - 33. "Characteristics of the Electrochromic Materials Au- WO_3 and Pt- WO_3 ," E.K. Sichel and J.I. Gittleman, *J. of Electronic Materials* **8**, 1 (1979).
 - 34. "Transport and Optical Properties of Electrochromic Au- WO_3 Cermets," E.K. Sichel and J.I. Gittleman, *Appl. Phys. Lett.* **33**, 564 (1978).
 - 35. "Composite Semiconductors: Selective Absorbers of Solar Energy," J.I. Gittleman, E.K. Sichel and Y. Arie, *Solar Energy Materials* **1**, 93 (1979).
 - 36. "Textured Silicon: A Selective Absorber for Solar Thermal Conversion," J.I. Gittleman, E.K. Sichel, H.W. Lehmann, and R. Widner, *Appl. Phys. Lett.* **35**, 742 (1979).
 - 37. "Optical Properties of Granular Magnesium Films," E.K. Sichel, J.I. Gittleman and B. Abeles, *Thin Solid Films* **51**, 89 (1978).
 - 38. "Fluction-Induced Tunneling Conduction in Carbon-PVC Composites," Ping Sheng, E.K. Sichel, and J.I. Gittleman, *Phys. Rev. Lett.* **40**, 1197 (1978).
 - 39. "Transport Properties of the Composite Material Carbon-Poly(vinyl chloride)," E.K. Sichel, J.I. Gittleman, and Ping Sheng, *Phys. Rev. B* **18**, 5712 (1978).
 - 40. "Thermal Conductivity of GaN, 25-360K," E.K. Sichel and J.I. Pankove, *J. Phys. and Chem. of Solids* **38**, 330 (1977).
 - 41. "Electrochromism in the Composite Material Au- WO_3 ," E.K. Sichel, J.I. Gittleman, and J. Zelez, *Appl. Phys. Lett.* **31**, 109 (1977).
 - 42. "Granular Materials for uv Filter," E.K. Sichel and J.I. Gittleman, report prepared for the Office of Naval Research, Contract No. N00014-76-C-0858 (1977).
 - 43. "Thermal Conductivity of Highly Oriented Pyrolytic Boron Nitride," E.K. Sichel and R.E. Miller in *Thermal Conductivity* **14** (P.B. Klemens and T.K. Chu, eds.), pp. 11-17, Plenum Press, 1976.
 - 44. "The Righi-Leduc Effect in Superconductors," E.K. Sichel and B. Serin, *J. of Low Temp. Physics* **24**, 145 (1976).
 - 45. "Heat Capacity and Thermal Conductivity of Hexagonal Pyrolytic Boron Nitride," E.K. Sichel, R.E. Miller, M.S. Abrahams, and C.J. Buiocchi, *Phys. Rev. B* **13**, 4607 (1976).
 - 46. "Sputtering Reactive Metals for Composite Materials: Erbium and Al_2O_3 ," E.K. Sichel and R.E. Miller, *Thin Solid Films* **37**, L19 (1976).
 - 47. "Thermal Conductance of Layer Structure Dichalcogenides," E.K. Sichel, B. Serin and J.F. Revelli, *J. of Low Temp. Physics* **16**, 229 (1974).
 - 48. "The Righi-Leduc Effect in Pb-In and In-Pb Alloys," E.K. Sichel and B. Serin, *Phys. Lett.* **37A**, 123 (1971).
 - 49. "Righi-Leduc Effect in the Mixed State of a Type II Superconductor," E.K. Sichel and B. Serin, *J. of Low Temp. Physics* **3**, 635 (1970).

[Back to Enid Sichel's homepage](#)