

Arthur J. Epstein

Invited Talks at National and International Conferences

1. J.S. Miller and A.J. Epstein, *Square Planar Transition Metal Complexes Based on Maleonitrile Dithiolate*, **American Chemical Society Meeting**, Los Angeles, California, April 1974. [Abstracts of the American Chemical Society 167, INORG. 110, 1974].
2. A.J. Epstein, P. Nielsen, D.J. Sandman, and N.O. Lipari, *Photoemission Studies of TCNQ Compounds*, **Lake Arrowhead Symposium on Conducting Organic and Transition Metals Salts**, Lake Arrowhead, California, 1-3 May 1974.
3. D.J. Sandman, P. Nielsen, A.J. Epstein, N.O. Lipari, and G. Ceasar, *Molecular Modification of Organic Solid State Properties*, **National Meeting of the American Chemical Society**, Philadelphia, Pennsylvania, 8 April 1975.
4. A.J. Epstein, *Electrical Conductivity of (NMP) (TCNQ)*, **American Physical Society 1977 March Meeting**, San Diego, California, 21-24 March 1977. [Bulletin of the American Physical Society 22, 422 (1977)].
5. A.J. Epstein, *Charge Transport in Organic Conductors: (NMP) (TCNQ) and Related Materials*, **Rochester Condensed Matter Symposium**, Rochester, New York, 13 May 1977.
6. A.J. Epstein, E.M. Conwell, and J.S. Miller, *Charge Transport in Molecular Conductors-Role of Mobility*, **New York Academy of Sciences Conference on Synthesis and Properties of Low-Dimensional Materials**, New York, New York, 13-16 June 1977.
7. A.J. Epstein, *Mobility, Disorder and Bandfilling in Molecular Conductors*, **Gordon Research Conference on Chemistry and Physics of Solids**, Plymouth, New Hampshire, 20-24 June 1977.
8. A.J. Epstein, *The Role of Mobility in Charge Transport in Molecular Conductors*, **174th National Meeting of the American Chemical Society**, Chicago, Illinois (Symposium on Chemical Physics of One-Dimensional Organic Conductors), 29 August-2 September 1977; Abstracts Papers PHYS 51.
9. A.J. Epstein and J.S. Miller, *Band Filling, Mobility and Disorder in Molecular Conductors*, **International Conference on Quasi-One-Dimensional Conductors**, Dubrovnik, Yugoslavia, 4-8 September 1978 [paper 7.4].
10. A.J. Epstein, *"Metal-like" Semiconductors-Role of Mobility in Molecular Conductors*, **NATO Advanced Research Institute on Molecular Metals**, Les Arcs, France, 10-16 September 1978 [paper P-27].

11. J.S. Miller and A.J. Epstein, *Design and Synthesis of a Variable Filled Band Molecular Conductor*, **NATO Advanced Research Institute on Molecular Metals**, Les Arcs, France, 10-16 September 1978 [paper P-35].
12. A.J. Epstein and J.S. Miller, *The Systematics of Molecular Conductors-Band Gaps, Mobility, Disorder and Band Filling*, **ACS/CSJ Chemical Congress**, Honolulu, Hawaii, 1-6 April 1979; Abstracts Papers PHYS 3.
13. A.J. Epstein and J.S. Miller, *Band Filling and Disorder in Molecular Conductors: $(NMP)_x(Phen)_{1-x}(TCNQ)$ As a Model System*, **NATO Advanced Study Institute on the Physics and Chemistry of Low Dimensional Solids**, Tomar, Portugal, 28 August 1979.
14. J.M. Pochan, H.W. Gibson, and A.J. Epstein, *Chemical Modification of Conducting Polymers, Poly(1,6-Heptadiyne)*, **157th Meeting of the Electrochemical Society**, St. Louis, Missouri, 15 May 1980.
15. A.J. Epstein, *Synthetic Conductors*, **Workshop on Synthesis and Characterization of Advanced Materials**, sponsored by NSF-CNRS, Bordeaux, France, 23-27 June 1980.
16. A.J. Epstein, H. Rommelmann, and H.W. Gibson, *Conductive Polymers: Polyacetylene*, **Third Conference on Electrical Properties of Organic Solids**, Wdzydze Kocieskie, Poland, 18-23 June 1981.
17. A.J. Epstein, H. Rommelmann, M. Abkowitz, and H.W. Gibson, *Frequency Dependent Conductivity of Polyacetylene*, **International Conference on Low-Dimensional Conductors**, Boulder, Colorado, 10-14 August 1981.
18. H.W. Gibson, S. Kaplan, A.J. Epstein, H. Rommelmann, W.R. Salaneck, and J.M. Pochan, *Isomerization of Polyacetylene*, **International Conference on Low-Dimensional Conductors**, Boulder, Colorado, 10-14 August 1981.
19. J.P. Pouget, R. Comes, A.J. Epstein, and J.S. Miller, *X-ray Observation of Crossover of $2k_F$ to $4k_F$ Scattering: $(NMP)_x(Phen)_{1-x}(TCNQ)$, $0.5 < x \leq 1.0$* , **International Conference on Low-Dimensional Conductors**, Boulder, Colorado, 10-14 August 1981.
20. H.W. Gibson, F.C. Bailey, A.J. Epstein, H. Rommelmann, S. Kaplan, and J.M. Pochan, **11th Northeast Regional Meeting of the American Chemical Society**, Rochester, New York, 18-21 October 1981 [Abstracts of Papers No. 298].
21. A.J. Epstein, *Frequency Dependent Conductivity of Polyacetylene*, **Symposium on Low-Dimensional Conductors, Institute for Theoretical Physics**, University of California, Santa Barbara, California, 7-10 December 1981.
22. A.J. Epstein, H. Rommelmann, M. Abkowitz, and H.W. Gibson, *Frequency Dependence of Conductivity: Applications of Conducting Polymers*, **183rd American Chemical Society National Meeting**, Las Vegas, Nevada, 29 March-2 April 1982.

23. A.J. Epstein, *Transport in Polymers: Experimental View and Contact with Theory*, **Workshop on Polymers as Synthetic Metals**, Los Alamos National Laboratory, Los Alamos, New Mexico, 26-28 April 1982.
24. A.J. Epstein, *Electrical Conductivity of Polyacetylene*, **Conference on Electroactive Polymers**, Autrans, France, 10-11 June 1982.
25. A.J. Epstein, H. Rommelmann, J.W. Kaufer, H.W. Gibson, and D.B. Tanner, *Charge Transfer Studies of Conducting Polymers*, **IUPAC Symposium on Macromolecules**, Amherst, Massachusetts, 12-16 July 1982.
26. A.J. Epstein, *Charge Transport and Magnetic Phenomena in Conducting Organic, Molecular and Polymeric Materials*, **NSF-SERC Workshop on Solid State Inorganic Chemistry**, Oxford University, Oxford, England, 9-11 December 1982.
27. A.J. Epstein, H. Rommelmann, J. Kaufer, H.W. Gibson, D.M. Hoffman, and D.B. Tanner, *Transport, Optical, and Magnetic Studies of Cis vs. Trans Polyacetylene*, **International Conference on the Physics and Chemistry of Conducting Polymers**, Les Arcs, Bourg Saint Maurice, Savoie, France, 11-15 December 1982.
28. H.W. Gibson, A.J. Epstein, H. Rommelmann, and J.M. Pochan, *Substituted Polyacetylenes by Cyclopolymerization: Poly(1,6-Heptadiyne) and Poly (Propylic Anhydride)*, **International Conference on the Physics and Chemistry of Conducting Polymers**, Les Arcs, Bourg Saint Maurice, Savoie, France, 11-15 December 1982.
29. A.J. Epstein, J.W. Kaufer, H. Rommelmann, J.S. Miller, and J.P. Pouget, *Evidence for Solitons in Conducting Organic Charge Transfer Crystals*, **International CNRS Colloquium on the Physics and Chemistry of Synthetic and Organic Metals**, Les Arcs, Bourg Saint Maurice, Savoie, France, 14-18 December 1982.
30. A.J. Epstein, *Concluding Remarks*, **International Conferences on Synthetic Low Dimensional Conductors and Superconductors**, Les Arcs, Bourg Saint Maurice, Savoie, France, 11-18 December 1982.
31. A.J. Epstein, *Transport Properties of Conducting Polymer Systems*, **State University of New York at New Paltz**, 1983 Summer Institute in Science and Technology-Short Course on Conducting Polymers, New Paltz, New York, 16 June 1983.
32. A.J. Epstein, *Short Course on Physics in One Dimension-Conducting Polymers and Organic Crystals*, **Eighth Nathiagali Summer College on Physics and Contemporary Needs** (Sponsored by International Centre for Theoretical Physics, Trieste, Italy), Islamabad, Pakistan, 23-28 July 1983.
33. A.J. Epstein, H. Rommelmann, R. Bigelow, H.W. Gibson, D.B. Tanner, P. Robin, J.P. Pouget, and R. Comes, *Role of Solitons in Nearly Metallic Polyacetylene*, **Workshop on Synthetic Metals II**, Los Alamos, New Mexico, 20-23 August 1983.

34. A.J. Epstein, *Solitons and Electrical Transport Measurements*, **Workshop on Soliton Creation and Detection in Condensed Matter**, Los Alamos, New Mexico, 10-13 January 1984.
35. J.P. Pouget, R. Robin, R. Comes, H.W. Gibson, A.J. Epstein, and D. Billaud, *Structural Properties of a Conducting Polymer: Doped (CH)_x*, **Fourth General Condensed Matter Division Conference of the European Physical Society**, Den Haag, The Netherlands, 19-23 March 1984.
36. A.J. *Conductivity Disorder and the Insulator-Metal Transition in Polyacetylene*, **International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals**, Abano Terme, Italy, 17-22 June 1984.
40. P. Robin, J.P. Pouget, R. Comes, H.W. Gibson, A.J. Epstein, and D. Billaud, *Structural Properties of Pure and Doped (CH)_x*, **International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals**, Abano Terme, Italy, 17-22 June 1984.
41. D.B. Tanner, X.Q. Tang, A. Feldblum, H.W. Gibson, and A.J. Epstein, *Optical Properties of Heavily-Doped Polyacetylene*, **International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals**, Abano Terme, Italy, 17-22 June 1984.
42. J.S. Miller, A.J. Epstein, W.M. Reiff, and J.H. Zhang, *Linear Chain Ferromagnetic Compounds-Recent Progress in Their Synthesis*, **International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals**, Abano Terme, Italy, 17-22 June 1984.
43. A.J. Epstein, R.W. Bigelow, R.P. McCall, and D.B. Tanner, *Electronic Properties of (NMP)_x(PHEN)_{1-x}(TCNQ)*, **International Conference on the Physics and Chemistry of Low-Dimensional Synthetic Metals**, Abano Terme, Italy, 17-22 June 1984.
44. A.J. Epstein, *Charge Conduction Mechanisms in Conducting Polymers*, **Gordon Conference on Dielectric Phenomena**, New Hampshire, 30 July-3 August 1984.
45. A.J. Epstein, *Transport Properties of Conducting Systems*, **State University of New York at New Paltz - Short Course on Conducting Polymers: Polymeric Organic Metals and Semiconductors**, New Paltz, New York, 12-14 November 1984.
46. A.J. Epstein, *Disorder and the Peierls State of p-Doped Polyacetylene*, **Synthetic Metals III Workshop**, Los Alamos, New Mexico, 8-12 April 1985.
47. A.J. Epstein, *Conduction in Conductive Polymers*, **Workshop in Conductive Polymers**, Brookhaven National Laboratory, Upton, New York, 7-9 October 1985.
48. A.J. Epstein, *Electronic Phenomena in Conducting Polymers*, **Dept. of Chemistry-Industry Affiliate Program**, The Ohio State University, 11 October 1985.

49. A.J. Epstein, *Insulator-to-Metal Transition in Polyaniline*, **Mini Symposium, Conducting Polymers and One-Dimensional Materials**, University of Florida, Gainesville, Florida, 26 February 1986.
50. A.J. Epstein, *Electrical Properties of Metallic Polymers*, **Annual Meeting of the Metallurgical Society**, New Orleans, Louisiana, 2-6 March 1986.
51. A.J. Epstein, *Conduction Mechanisms in Polyacetylene and Other Polymers*, **Ministry of International Trade and Industry Seminar on Conducting Polymers**, Kyoto, Japan, 1 June 1986.
52. A.G. MacDiarmid, J.-C. Chiang, W.-S. Huang, A.F. Richter, and A.J. Epstein, *Polyaniline: A New Concept in Conducting Polymers*, **International Conference on Science and Technology of Synthetic Metals**, Kyoto, Japan, 1-6 June 1986.
53. J.S. Miller, W.M. Reiff, J.H. Zhang, I. Hamberg, D.B. Tanner, S. Chittipeddi, and A.J. Epstein, *Magnetic Molecular Charge Transfer Salts*, **International Conference on Science and Technology of Synthetic Metals**, Kyoto, Japan, 1-6 June 1986.
54. A.J. Epstein, J.M. Ginder, R.W. Bigelow, H.-S. Woo, D.B. Tanner, A.F. Richter, W.-S. Huang, and A.G. MacDiarmid, *Insulator-to-Metal Transition in Polyaniline*, **International Conference on Science and Technology of Synthetic Metals**, Kyoto, Japan, 1-6 June 1986.
55. A.J. Epstein, *New Concepts in Synthetic Metals: Conducting Polymers and Molecular Magnets*, **Symposium on Conducting Polymers**, Beijing, Peoples' Republic of China, 9-11 June 1986.
56. A.G. MacDiarmid, J.C. Chiang, A.F. Richter, and A.J. Epstein, *Polyaniline: A New Concept in Conducting Polymers*, **NATO Workshop on Conducting Polymers-Special Applications**, Sintra, Portugal, 28-31 July 1986.
57. A.J. Epstein and A.G. MacDiarmid, *Difference Between Organic and Inorganic Semiconductors: Semiconducting Polymers or Polymeric Semiconductors?*, **NATO Workshop on Conducting Polymers-Special Applications**, Sintra, Portugal, 28-31 July 1986.
58. A.J. Epstein, J.M. Ginder, F. Zuo, H.-S. Woo, D.B. Tanner, A.F. Richter, W.S. Huang, and A.G. MacDiarmid, *Insulator-to-Metal Transition in Polyaniline, Charge Conduction Mechanisms in Polymers*, **American Physical Society Short Course: Introduction to Polymer Physics in Electronic Devices**, Detroit, Michigan, 24-25 March 1984.
37. A.J. Epstein, *Role of Solitons in Transport in Polyacetylene*, **American Physical Society 1984 March Meeting**, Detroit, Michigan, 26-30 March 1984 [Bull. Am. Phys. Soc. 29, 497 (1984)].

38. A.J. Epstein, *Converting Science into Technology: A Case Study-An Industrial Scientist's Perspective*, **National Science Foundation Conference on Converting Science into Technology**, Raleigh, North Carolina, 14-16 May 1984.
39. A.J. Epstein, R.W. Bigelow, H. Rommelmann, H. Gibson, A. Feldblum, and D.B. Tanner, *Metal Transition in Polyaniline*, **International Conference on Electronic Processes in Conducting Polymers**, Vadstena, Sweden, 18-20 August 1986.
59. E. Ehrenfreund, Z. Vardeny, O. Brafman, and A.J. Epstein, *Photoinduced Absorption of Gap States in Iodine Doped Polyacetylene*, **International Conference on Electronic Processes in Conducting Polymers**, Vadstena, Sweden, 18-20 August 1986.
60. A.G. MacDiarmid, M. Angelopoulos, A.F. Richter, J.C. Chiang, L.S. Yang, and A.J. Epstein, *Polyanilines (Polyparaphenyleneamineimines): A New Concept in Conducting Polymers*, **192nd American Chemical Society National Meeting**, Anaheim, California, 7-12 September 1986.
61. A.J. Epstein, J.M. Ginder, A.F. Richter, W.-S. Huang, and A.G. MacDiarmid, *Insulator-to-Metal Transition in Polyaniline*, **192nd American Chemical Society National Meeting**, Anaheim, California, 7-12 September 1986.
62. A.J. Epstein, *Polaron and Bipolaron Defects in Polymers: Polyaniline*, **American Physical Society 1987 March Meeting**, New York, New York, 16-20 March 1987 [Bulletin of the American Physical 32, 940 (1987)].
63. A.G. MacDiarmid and A.J. Epstein, *Polyaniline, A New Class of Conducting Polymers*, **International Winter School on Electronic Properties of Polymers and Related Compounds**, Kirchberg, Austria, 16-20 March 1987.
64. A.J. Epstein and A.G. MacDiarmid, *Charge Conduction in Polymers: Polyaniline*, **193rd American Chemical Society National Meeting**, Denver, Colorado, 5-10 April 1987.
65. J.S. Miller and A.J. Epstein, *Ferromagnetic Exchange in Molecular Solids*, **NATO Workshop on Organic and Low Dimensional Crystalline Materials**, Minorca, Spain, 4-8 May 1987.
66. A.J. Epstein and A.G. MacDiarmid, *Conducting Polymers: Chemistry and Physics*, **19th American Chemical Society Central Regional Meeting**, Columbus, Ohio, 24-26 June 1987.
67. A.G. MacDiarmid and A.J. Epstein, *Chemical Aspects of Conducting Polymers*, **Adriatico Research Conference on One-Dimensional Organic Conductors: Chemistry, Physics and Applications**, Trieste, Italy, 30 June-3 July 1987.

68. A.J. Epstein and J.S. Miller, *Experimental Studies of Organic Ferromagnets*, **Adriatico Research Conference on One-Dimensional Organic Conductors: Chemistry, Physics and Applications**, Trieste, Italy, 30 June-3 July 1987.
69. A.J. Epstein, D.L. Cox, J.R. Gaines, J.C. Garland, B.R. Patton, T. Lemberger, and S. Sooryakumar, *Effect of Materials Processing on the Structure and Properties of High T_c Superconductors*, **194th American Chemical Society National Meeting**, New Orleans, Louisiana, 30 August-4 September 1987.
70. A.J. Epstein and A.G. MacDiarmid, *Polaronic Defect States in Polyaniline*, **Second Symposium on Electroresponsive Polymers**, Upton, New York, 4-7 October 1987.
71. A.G. MacDiarmid and A.J. Epstein, *The Polyanilines: A New Concept in Conducting Polymers*, **Second Symposium on Electroresponsive Polymers**, Upton, New York, 4-7 October 1987.
72. J.S. Miller and A.J. Epstein, *Molecular and Polymeric Ferromagnets*, **Second Symposium on Electroresponsive Polymers**, Upton, New York, 4-7 October 1987.
73. J.S. Miller, A.J. Epstein, and W.M. Reiff, *Molecular and Organic Ferromagnets*, **32nd Conference on Magnetism and Magnetic Materials**, Chicago, Illinois, 9-13 November 1987.
74. A.J. Epstein, S. Chittipeddi, A. Chakraborty, and J.S. Miller, *Ferromagnetism in Molecular Materials: Decamethylferrocenium Tetracyanoethanide (MeFc)(TCNE)*, **32nd Conference on Magnetism and Magnetic Materials**, Chicago, Illinois, 9-13 November 1987.
75. J.S. Miller and A.J. Epstein, *Molecular Ferromagnets*, **International Conference on Electronics of Organic Materials**, Tashkent, Uzbek SSR, USSR, 16-21 November 1987.
76. A.J. Epstein and A.G. MacDiarmid, *Polaron and Bipolaron Defects in Polymers: Polyaniline*, **International Conference on Electronics of Organic Materials**, Tashkent, Uzbek SSR, USSR, 16-21 November 1987.
77. A.J. Epstein, X.D. Chen, S. Chittipeddi, E. Ehrenfreund, W. Farneth, J.R. Gaines, J.M. Ginder, Y. Lu, R.P. McCall, B.S. McLean, B.R. Patton, M.G. Roe, I. Shah, Y. Song, and F. Zuo, *Anomalous Magnetic Photoinduced and Structural Phenomena in High T_c Materials*, **International Conference on the First Two Years of High-Temperature Superconductivity**, Tuscaloosa, Alabama, 11-13 April 1988.
78. A.J. Epstein, *Unusual Magnetic Phenomena in Conducting Polymers: Solitons, Polarons and Insulator-to-Metal Transitions*, **Swedish National Board for Technical Development Workshop on Conducting Polymers**, Stockholm, Sweden, 18-19 April 1988.

79. J.M. Ginder, A.J. Epstein, and A.G. MacDiarmid, *Novel Electron Phenomena in Conducting Polymers: Excitons and Polarons in Polyaniline*, **22nd Middle Atlantic Regional Meeting**, American Chemical Society, Millersville, Pennsylvania, 24-26 May 1988.
80. N. Theophilou, D.B. Swanson, A.G. MacDiarmid, F. Zuo, S.P. Treat, and A.J. Epstein, *Highly-Conducting Polyacetylene*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
81. E. Ehrenfreund, Z. Vardeny, and A.J. Epstein, *Photoexcitations of Gap States in Doped Conducting Polymers*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
82. J.M. Ginder, A.J. Epstein, and A.G. MacDiarmid, *Electronic Phenomena in Polyaniline*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
83. A. Ray, A.G. MacDiarmid, and A.J. Epstein, *Polyanilines: Doping, Structure and Derivatives*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
84. J.S. Miller and A.J. Epstein, *Molecular and Organic Linear Chain Ferromagnets*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
85. H.H.S. Javadi, F. Zuo, K.R. Cromack, A.J. Epstein, M. Angelopoulos, and A.G. MacDiarmid, *Charge Conduction in Polyaniline*, **International Conference on Science and Technology of Synthetic Metals**, Santa Fe, New Mexico, 26 June-2 July 1988.
86. A.J. Epstein, S. Chittipeddi, and J.S. Miller, *Ferromagnetism in Molecular (DMeFc)(TCNE)*, **International Conference on Magnetism**, Paris, France, 25 July-29 July 1988.
87. J.S. Miller and A.J. Epstein, *Molecular and Organic Magnets*, **196th American Chemical Society National Meeting**, Los Angeles, California, 24-30 September 1988.
88. A.J. Epstein, J.M. Ginder, J.M. Leng, F. Zuo, I. Shah, and W. Farneth, *Defects and Optical Excitations in Semiconducting La_2CuO_4 and $\text{Y}_1\text{Ba}_2\text{Cu}_3\text{O}_{6+x}$* , **International Symposium on the Electronic Structure of High T_c Superconductors**, Rome, Italy, 5-7 October 1988.
89. J.S. Miller and A.J. Epstein, *Molecular and Organic Based Ferromagnets*, **Fourth International Kyoto Conference on New Aspects of Organic Chemistry**, Kyoto, Japan, 14-17 November 1988.

90. A.J. Epstein and A.G. MacDiarmid, *Polyaniline: Electronic Structure, Order/Disorder and Charge States*, **International Winterschool on Electronic Properties of Polymers and Related Compounds**, Kirchberg, Austria, 3-11 March 1989.
91. N. Theophilou, D. Swanson, A.G. MacDiarmid, D.B. Tanner, and A.J. Epstein, *Influence of the Catalyst System on the Structure and Conductivity of Highly Conducting Polyacetylene*, **International Winterschool on Electronic Properties of Polymers and Related Compounds**, Kirchberg, Austria, 3-11 March 1989.
92. A.G. MacDiarmid and A.J. Epstein, *Polyaniline: A New Concept in Conducting Polymers*, **American Physical Society 1989 March Meeting**, St. Louis, Missouri, 20-24 March 1989 [Bulletin of the American Physical Society 34, 397 (1989)].
93. A.J. Epstein and A.G. MacDiarmid, *Polyaniline: Polaron Lattice, Order/Disorder, and Fermi Glass*, **American Physical Society 1989 March Meeting**, St. Louis, Missouri, 20-24 March 1989 [Bulletin of the American Physical Society 34, 540 (1989)].
94. A.J. Epstein, *Magnetic Properties of Molecules and Solids*, **197th American Chemical Society National Meeting**, Dallas, Texas, 9-14 April 1989.
95. A.J. Epstein, S. Chittipeddi, A. Chakraborty, and J.S. Miller, *Ferromagnetic State in Decamethylferrocenium Tetracyanoethanide*, **197th American Chemical Society National Meeting**, Dallas, Texas, 9-14 April 1989.
96. J.S. Miller and A.J. Epstein, *Structure-Magnetic Coupling Relationships for Metallocene-Acceptor Based Charge Transfer Complexes*, **197th American Chemical Society National Meeting**, Dallas, Texas, 9-14 April 1989.
97. A.G. MacDiarmid, G.E. Asturias, D.L. Kershner, S.K. Manohar, A. Ray, E.M. Scherr, Y. Sun, X. Tang, and A.J. Epstein, *Polyanilines: Processing, Molecular Weight, Oxidation State and Derivatives*, **197th American Chemical Society National Meeting**, Dallas, Texas, 9-14 April 1989.
98. R.P. McCall, J.M. Ginder, J.M. Leng, H.J. Ye, A.J. Epstein, W.E. Farneth, E.M. McCarron, and S.I. Shah, *Absorption and Photoinduced Absorption Studies of Semiconducting $YBa_2Cu_3O_{7-x}$* , **44th Symposium on Molecular Spectroscopy**, Columbus, Ohio, 12-16 June 1989.
99. A.J. Epstein and A.G. MacDiarmid, *An Old Polymer with New Physics*, **NATO Advanced Study Institute on Lower Dimensional Systems and Molecular Devices**, Spetses, Greece, 12-26 June 1989.
100. A.J. Epstein and J.S. Miller, *Molecular and Polymeric Ferromagnetism*, **NATO Advanced Study Institute on Lower Dimensional Systems and Molecular Devices**, Spetses, Greece, 12-26 June 1989.

101. A.G. MacDiarmid and A.J. Epstein, *The Polyanilines: Recent Advances in Chemistry and Processing*, **NATO Advanced Study Institute on Lower Dimensional Systems and Molecular Devices**, Spetses, Greece, 12-26 June 1989.
102. A.J. Epstein and A.G. MacDiarmid, *Polyaniline Versus Polyacetylene, or, Rings Versus Bonds and the Roles of Barriers and Crystallinity*, **NATO Advanced Workshop on Conjugated Polymeric Materials: Opportunities in Electronics, Optoelectronics, and Molecular Electronics**, Mons, Belgium, 3-8 September 1989.
103. A.G. MacDiarmid and A.J. Epstein, *New Developments in the Synthesis and Doping of Polyacetylene and Polyaniline and Its Derivatives*, **NATO Advanced Workshop on Conjugated Polymeric Materials: Opportunities in Electronics, Optoelectronics, and Molecular Electronics**, Mons, Belgium, 3-8 September 1989.
104. J.M. Ginder, A.J. Epstein, and A.G. MacDiarmid, *Phenyl Ring Rotations, Structural Order, and Electronic States in Polyaniline*, **21st Europhysics Conference on Macromolecular Physics, Electrical and Optical Active Polymers**, European Physical Society, Lodz, Poland, 4-8 September 1989.
105. A.G. MacDiarmid and A.J. Epstein, *The Polyanilines: A Novel Class of Conducting Polymers*, **Faraday Discussions on Charge Transfer in Polymeric Systems**, Oxford, England, 11-13 September 1989.
106. A.G. MacDiarmid and A.J. Epstein, *Polyaniline: A Novel Concept in Conducting Polymers*, **Conducting Polymer Symposium, S.E. Regional American Chemical Society Meeting**, Winston-Salem, North Carolina, 9-11 October 1989.
107. R.P. McCall, J.M. Ginder, J.M. Leng, H.J. Ye, A.J. Epstein, W.E. Farneth, E.M. McCarron, and S.I. Shah, *Photoinduced Absorption Spectroscopy as a Probe of Electronic States in High T_c Material Systems*, **Annual Meeting of the Optical Society of America**, Orlando, Florida, 15-20 October 1989.
108. A.J. Epstein, J.M. Ginder, R.P. McCall, T.L. Gustafson, and A.G. MacDiarmid, *Fast Phenomena in Polyaniline: Relaxation Mechanism in Ring Containing Polymers*, **Electrochemical Society Meeting**, Hollywood, Florida, 15-20 October 1989.
109. A.J. Epstein and J.S. Miller, *Molecular Ferromagnetism*, **Symposium on Electroresponsive Molecular and Polymeric Systems**, Brookhaven National Laboratory, Upton, New York, 25-27 October 1989.
110. A.G. MacDiarmid and A.J. Epstein, *Polyaniline: New Chemistry, Oriented Films, and Fibers*, **Symposium on Electroresponsive Molecular and Polymeric Systems**, Brookhaven National Laboratory, Upton, New York, 25-27 October 1989.
111. A.J. Epstein and A.G. MacDiarmid, *Polyaniline: New Physics in Ring Containing Polymers*, **Symposium on Electroresponsive Molecular and Polymeric Systems**, Brookhaven National Laboratory, Upton, New York, 25-27 October 1989.

112. A.J. Epstein, Plenary Lecture on *Opportunities of New Physics, New Chemistry, and New Technology in Polymers*, **Okazaki Conference on Novel Solid State Phenomena Induced by Hydrogen-Electron Cooperation**, Okazaki, Japan, 13-15 November 1989.
113. A.G. MacDiarmid and A.J. Epstein, *The Polyanilines: A Novel Class of Conducting Polymers*, **Materials Research Society Symposium on Electrical, Optical, and Magnetic Properties of Organic Solid State Materials**, Boston, Massachusetts, 27 November-1 December 1989.
114. A.J. Epstein, *Polyaniline: An Old Polymer with New Physics*, **Materials Research Society Symposium on Electrical, Optical, and Magnetic Properties of Organic Solid State Materials**, Boston, Massachusetts, 27 November-1 December 1989.
115. A.J. Epstein and J.S. Miller, *Magnetism in Decamethylferrocenium Tetracyanoethanide, [DMeFc]⁺[TCNE]⁻ and Related Systems*, **Materials Research Society Symposium on Electrical, Optical, and Magnetic Properties of Organic Solid State Materials**, Boston, Massachusetts, 27 November-1 December 1989.
116. A.G. MacDiarmid and A.J. Epstein, *Polyaniline: Chemical and Physical Basis for its Processibility*, **American Physical Society 1990 March Meeting**, Anaheim, California, 12-16 March 1990 [Bulletin of the American Chemical Society 35, 196 (1990)].
117. J.M. Ginder, A.J. Epstein, and A.G. MacDiarmid, *Ring-Torsional Defects in Polyaniline*, **American Physical Society 1990 March Meeting**, Anaheim, California, 12-16 March 1990 [Bulletin of the American Chemical Society 35, 664 (1990)].
118. A.J. Epstein and A.G. MacDiarmid, *The Controlled Electromagnetic Response of Polyaniline and Its Application to Technologies*, **Europhysics Industrial Workshop on the Science and Applications of Conducting Polymers**, Loftus, Norway, 28-31 May 1990.
119. A.G. MacDiarmid and A.J. Epstein, *The Polyanilines: Potential Technology Based on New Chemistry and New Properties*, **Europhysics Industrial Workshop on the Science and Applications of Conducting Polymers**, Loftus, Norway, 28-31 May 1990.
120. J.M. Ginder, A.J. Epstein, and A.G. MacDiarmid, *Torsional Defects and Photoinduced Charge Transfer in Ring Containing Polymers*, **Symposium on Photoinduced Charge Transfer**, Rochester, New York, June 1990.
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