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Degrees

Ph.D. in Physical Chemistry with Certification in Chemical-Physics, University of Florida, Gainesville, FL., December 1992. Dissertation title: Infrared, Optical and Luminescence Studies of Quasi-One-Dimensional Charge Transfer Salts and Polymers. Advisor: D.B. Tanner.

B.S. in Chemical Engineering, University of Illinois, Urbana, IL, May 1987. Honors thesis: Effect of Aging Time on the Mechanical Properties of J2 Polymer. Advisor: P.H. Geil

Research Experience

Visiting Scientist, National High Magnetic Field Laboratory, Tallahassee, FL. 7/97, 1/99-2/99.

Infrared and optical measurements on organic molecular conductors and superconductors, inorganic molecular magnet compounds, and linear chain inorganic spin-Peierls materials at low temperature and high magnetic fields.

Assistant Professor, Department of Chemistry, State University of New York at Binghamton, Binghamton, NY 13902-6016. 1/95-Present.

Spectroscopic studies of novel electronic and magnetic solids. Infrared, Raman, optical, luminescence and microwave dielectric properties of low-dimensional solids: organic molecular conductors and superconductors, conducting and light emitting polymers, C_{60} -based compounds, linear chain copper oxides, bronzes, molecular magnets, and other inorganic materials. Electronic structure, charge transport mechanisms, solid state phase transitions, structure-property relationships, and magnetic field effects. Strong working collaborations at the National High Magnetic Field Laboratory and at Brookhaven National Laboratory.

Postdoctoral Research Associate, Centre de Recherche en Physique du Solide, Département de Physique, Université de Sherbrooke, Sherbrooke, Québec, Canada. 2/93-1/95. Supervisors: M. Poirier and S. Jandl.

Low temperature microwave dielectric and Raman scattering studies of low-dimensional electronic and magnetic solids in the presence of a magnetic field.

Research Assistant, Departments of Chemistry and Physics, University of Florida, Gainesville, FL. 8/88-1/93. Advisor: D.B. Tanner.

Spectroscopic (infrared, optical and luminescence) studies of structural phase transitions, charge transport, color and light emission properties in solid state electronic materials.

Research Assistant, University of Illinois Composite Center, Urbana, IL. 5/87-8/87. Advisor: P.H. Geil.

Thermal, mechanical, and viscoelastic characterization of polymers for use in high performance composites. Final report: The Effect of Water Absorption on the Properties of J2 Copolymer.

Undergraduate Research, University of Illinois, Urbana, IL, 1/86-8/87. Advisor: P.H. Geil.

Structure/property relationships in high performance polymers such as PEEK and J2. Thermal, mechanical, and viscoelastic characterization.

Project Engineer, 3M Corporation, Chemical Division Engineering, St. Paul, MN. 5/86-8/86.

Project responsibilities in costing, design and process analysis, both in the research laboratory and at the manufacturing plant.

Laboratory Technician, Zenith Electronic Corporation, Display Device Research and Development, Glenview, IL. 5/85-8/85 and 5/84-8/84.

Tested photoresists, resins and cataphoretic deposition techniques of phosphors for use on a high resolution color CRT and index line display.

Teaching Experience

Courses Taught at SUNY-Binghamton

Year	Course	Enrollment	Innovations
Spring '95	Polymer Science	13	New course.
Fall '95	Intro. Physical Chem.	92	Multimedia
Fall '95	Departmental Colloquium	≈15	–
Spring '96	Polymer Science	10	Industrial Field Trips
Spring '96	Departmental Colloquium	≈15	–
Fall '96	Intro. Physical Chem.	110	Expanded Multimedia
Fall '96	Departmental Colloquium	≈15	–
Spring '97	Polymer Science	14	Polymer Laboratory
Fall '97	Physical Chem. Lab.	≈ 36	Yes, 2 new expts.
Spring '98	Chemistry of Solids	≈ 40	Yes, new course.
Spring '98	Organic Molecular Conductors	4	New course, 100 % on-line.
Fall '98	General Chemistry	≈ 230	Multimedia
Fall '98	Scientific Writing	2	Yes, new course.
Spring '99	Research Semester	–	–

Future Teaching Plans at SUNY-Binghamton

Year	Course	Enrollment	Innovations
Fall '99	General Chemistry	≈ 650	?
Fall '99	Organic Molecular Conductors	?	Improved on-line interaction
Spring '00	Chemistry of Solids	40	

Publications

- Planarizing Polyaromatic Polymers Based on Imine Chemistry*, K.B. Al-Jumah, K.B. Wagoner, T.E. Hogen-Esch, J.L. Musfeldt, and D.B. Tanner, *Polymer Preprints* **30**, 173 (1989).
- Optical Properties of NPrQn (TCNQ)₂ Through the Phase Transition*, K. Kamarás, C.S. Jacobsen, V. Zelezný, J.L. Musfeldt, and D.B. Tanner, Proceedings of the 1990 International Conference on Synthetic Metals, *Synth. Met.* **41-43**, 1839 (1991).
- Spectral Studies of the Phase Transition in NPrQn (TCNQ)₂*, J.L. Musfeldt, K. Kamarás, and D.B. Tanner, *Phys. Rev. B* **45**, 10197 (1992).
- Temperature Dependence of the Infrared and Optical Properties of DMTM(TCNQ)₂*, J.L. Musfeldt, C.C. Homes, M. Almeida, and D.B. Tanner, *Phys. Rev. B* **46**, 8777 (1992).
- Electron-Phonon Coupling in a Quarter-Filled TCNQ Salt*, C.C. Homes, J.L. Musfeldt, and D.B. Tanner, *Phys. Rev. B* **48**, 16799 (1993).
- A Method for the Determination of the Optical Properties of Highly Conjugated Pigments*, J.L. Musfeldt, D.B. Tanner, and A.J. Paine, *J. Opt. Soc. Am. A* **10**, 2648 (1993).
- Raman Scattering and Microwave Cavity Studies of the Structural Phase Transition in the Quasi-One-Dimensional Ferromagnet TMNB*, J.L. Musfeldt, M. Poirier, S. Jandl, and J.-P. Renard, *J. Chem. Phys.* **100** 7677 (1994).
- Luminescent Polymers with Discrete Emitter Units*, J.L. Musfeldt, J.R. Reynolds, D.B. Tanner, J.P. Ruiz, J. Wang, and M. Pomeranz, *J. Polymer Sci.: Polym. Phys. Ed.* **32**, 2395 (1994).
- Optical Absorption, Luminescence, and Redox Switching Properties of Polyphenylene Derivatives*, J.R. Reynolds, A.D. Child, J.P. Ruiz, J.L. Musfeldt, P. Balanda, B. Sankaran, F. Larmat, and D.B. Tanner, *Mat. Res. Soc. Symp. Proc.*, **328**, 191 (1994).
- Photoabsorption and Photoluminescence of Polymers with Discrete Emitter Units*, J.L. Musfeldt, J.R. Reynolds, D.B. Tanner, J.P. Ruiz, J. Wang, and M. Pomeranz, *Polymer Preprints* **35**, 259 (1994).
- Microwave Dielectric Studies of the Spin-Density Wave State in (TMTSF)₂PF₆*, J.L. Musfeldt, M. Poirier, P. Batail, and C. Lenoir, *Phys. Rev. B* **51**, 8347 (1995).
- H-T Behavior of the Spin-Density Wave Condensate in (TMTSF)₂AsF₆*, J.L. Musfeldt, M. Poirier, P. Batail, and C. Lenoir, *Europhys. Lett.* **30**, 105 (1995).
- Microwave Dielectric Studies of the Low Temperature Phase in (TMTSF)₂AsF₆*, J.L. Musfeldt, M. Poirier, P. Batail, and C. Lenoir, *Phys. Rev. B.*, **52**, 15983 (1995).
- Microwave Dielectric Studies of the Spin-Density Wave State in (TMTSF)₂PF₆*, J.L. Musfeldt, M. Poirier, P. Batail, and C. Lenoir, *Phys. Rev. B* **53**, 457(E) (1996).
- * *Using Technology to Brighten Student Employment Prospects*, J.L. Musfeldt and A. Kim, *Proceedings of the 5th SUNY Conference on Instructional Technologies*, 107 (1996).

- H-T Behavior of the Spin-Density Wave Condensate in (TMTSF)₂AsF₆*, J.L. Musfeldt, *Mol. Cryst. Liq. Cryst.* **284**, 121 (1996).
- * *An Infrared Investigation of the Broken Symmetry Ground State in GeCuO₃*, J.L. Musfeldt, Y.J. Wang, M. Poirier, S. Jandl, A. Revcolevschi, and G. Dhahenne, *Phys. Rev. B.*, **54**, 469 (1996).
- Phonons in Pure and Doped GeCuO₃ Spin-Peierls Crystals: Raman and Ultrasonic Studies*, S. Jandl, M. Poirier, M. Castonguay, P. Fronsès, J.L. Musfeldt, A. Revcolevschi, and G. Dhahenne, *Phys. Rev. B.*, **54**, 7318 (1996).
- * *Optical Observation of the Interplay between Elastic and Magnetic Energy in a Spin-Peierls System*, G. Li, J.L. Musfeldt, Y.J. Wang, S. Jandl, M. Poirier, A. Revcolevschi, and G. Dhahenne, *Phys. Rev. B. Rapid Commun.*, **54**, R15633 (1996).
- Infrared Studies of the Phase Transition in TEA(TCNQ)₂*, V. Železny, J.L. Musfeldt, and D.B. Tanner, *Advanced Materials for Optics and Electronics*, **6**, 353 (1996).
- * *Thermodynamics of the β -Naphthol/Acetamide Phase Diagram by Thermal Analysis Techniques*, A. Kim and J.L. Musfeldt, *Chem. Educ.*, **2(3)**, 03129-7 (1997).
- * *Optical Investigation of the H-T Phase Diagram in GeCuO₃*, V.C. Long, J.L. Musfeldt, T. Schmiedel, A. Revcolevschi, and G. Dhahenne, *Phys. Rev. B., Rapid Commun.*, **56**, R14263 (1997).
- * *A Distributed Network Based Materials Course*, J.S. Lee, M.B. Preiss, G. Li, J.L. Musfeldt, K.P. Mooney, M.J. Naughton, C. Rivera, L. Mihaly, and P. Naughton, *Proceedings of the 7th Annual SUNY Conference on Instructional Technology*, 71 (1998).
- * *Theoretical and Experimental Studies of Chemical Structure/ Physical Property Relationships in Polymers*, A. Kim and J.L. Musfeldt, *J. Chem. Ed.*, **75**, 893 (1998).
- * *Far-Infrared Studies of Spin-Peierls Materials in a Magnetic Field*, G. Li, J.S. Lee, V.C. Long, J.L. Musfeldt, Y.J. Wang, M. Almeida, A. Revcolevschi, and G. Dhahenne, *Chem. Materials*, **10**, 1115 (1998).
- * *Preparation and Separation of C₆₀ Photopolymers for the Physical Chemistry Instructional Laboratory*, J. Pigos and J.L. Musfeldt, *Chem. Educ.*, **3(4)**, 04223-4 (1998).
- * *Far-Infrared Study of the Jahn-Teller-Distorted C₆₀ Monoanion in C₆₀-Tetraphenylphosphoniumiodide*, V.C. Long, J.L. Musfeldt, K. Kamarás, A. Schilder, and W. Schutz, *Phys. Rev. B.*, **58**, 14338 (1998).
- * *A Distributed Network-Based Course in Organic Molecular Conductors*, J.S. Lee, M.B. Preiss, G. Li, J.L. Musfeldt, K.P. Mooney, M.J. Naughton, C. Rivera, L. Mihaly, and P. Naughton, *J. Mater. Educ.*, **20**, 91 (1998).
- * *Infrared Investigations of C₆₀-Based Polymers*, K. Kamarás*, Y. Iwasa, L. Forro, and J.L. Musfeldt, accepted, *Proceedings of the Materials Research Society*.
- * *Infrared Studies of the Broken Symmetry Ground States in η -Mo₄O₁₁*, Z. Zhu, J.L. Musfeldt, Y.J. Wang, J. Sarro, Z. Fisk, H. Negishi, and M. Inoue, accepted, *Synth. Met.*

- * *Optical Properties of $(ET)_2SF_5CH_2CF_2SO_3$: a Novel Superconductor with Large Discrete Counterions*, J. Dong, J.L. Musfeldt, J.A. Schlueter, J.M. Williams, and G.L. Gard, accepted, *Synth. Met.*
- * *Far-Infrared Study of C_{60} Tetraphenyl phosphonium Iodide*, V.C. Long, J.L. Musfeldt, K. Kamarás, A. Schilder, and W. Schutz, accepted, *Synth. Met.*
- * *Infrared Studies of Low Temperature Symmetry Breaking in the Perhennate Family of BEDT-TTF Based Organic Molecular Conductors*, S.M. Baker, J. Dong, G. Li, Z. Zhu, J.L. Musfeldt, J.A. Schlueter, M.E. Kelly, R.D. McMin, and J.M. Williams, submitted, *Phys. Rev. B.*
- * *Spectroscopic Studies of $\eta-Mo_4O_{11}$ at High Magnetic Fields*, Z. Zhu, J.L. Musfeldt, Y.J. Wang, J. Sarrao, Z. Fisk, H. Negishi, and M. Inoue, *submitted*, Proceedings of the Physical Phenomena at High Magnetic Fields III Conference.
- * *Optical Properties of $\beta''-(ET)_2SF_5CH_2CF_2SO_3$: a Layered Molecular Superconductor with Large Discrete Counterions*, J. Dong, J.L. Musfeldt, J.A. Schlueter, J.M. Williams, G.L. Gard, submitted, *Phys. Rev. B.*
- * *Optical Properties of $\beta''-(ET)_2SF_5CHF_2SO_3$: Changing Physical Properties via Chemical Tuning of the Counterion*, I. Olejniczak, B. Jones, Z. Zhu, J. Dong, J.L. Musfeldt, J.A. Schlueter, J.M. Williams, G.L. Gard, submitted, *Chem. Mater.*

Books and Review Articles

Spin-Peiersl Materials, J.L. Musfeldt, Reviews in Magnetism, J.S. Miller, ed., *in preparation*.

Patents

Contactless Photo-Magnetic Switch, J.L. Musfeldt, G. Li, and Y.J. Wang, *Patent Pending*.

Invited Lectures

Optical Studies of Oxide-Based Materials in High Magnetic Fields, to be presented at the Institute of Physics, Academy of Sciences, Zagreb, Croatia. June 18, 1999.

Optical Studies of Oxide-Based Materials in High Magnetic Fields, American Physical Society National Meeting, Atlanta, GA, March 1999.

Optical Properties of $\beta''-(ET)_2SF_5R_2SO_3$: Changing Physical Properties by Chemical Tuning of the Counterion, Electronic Phenomena in Layered Molecular Conductors and Superconductors, Argonne National Laboratory, Chicago, IL. Jan. 15, 1999.

Spectroscopic Studies of Low-Dimensional Materials in High Magnetic Fields, Department of Materials Science, Rensselaer Polytechnic, Troy, NY. Nov. 19, 1998.

Infrared Studies of the Broken Symmetry Ground States in $\eta-Mo_4O_{11}$, International Congress on Synthetic Metals, Montpellier, France, July 1998.

Spectroscopic Studies of Novel Materials, Department of Physics, Clark University, Boston, MA, Feb. 19, 1998.

- Spectroscopic Studies of Novel Materials*, Department of Chemistry, Florida State University, Tallahassee, FL, Jan. 8, 1998.
- Spectroscopic Studies of Spin–Peierls Materials in a Magnetic Field*, Institute of Physics, Czech Academy of Sciences, Prague, Czech Republic, May 22, 1997.
- Spectroscopic Studies of Spin–Peierls Materials in a Magnetic Field*, Research Institute for Solid State Physics, Budapest, Hungary, May 18, 1997.
- Spectroscopic Studies of Materials in a Magnetic Field*, Department of Physics, Syracuse University, Syracuse, NY, Feb. 28, 1997.
- Spectroscopic Studies of Materials in a Magnetic Field*, Department of Chemistry, Rensselaer Polytechnic, Troy, NY, Nov 23, 1996.
- Spectroscopic Studies of Magnetically Driven Phase Transitions*, “Solid State Materials Summer School” sponsored by NSF–DMR at the State University of New York at Binghamton, Binghamton, NY, June 12, 1996.
- Far–Infrared Studies of $GeCuO_3$ in a Magnetic Field*, BT & T Molecular Crystal Group, National High Magnetic Field Laboratory, Tallahassee, FL, May 14, 1996.
- H–T Behavior of the Spin–Density Wave Condensate in TMTSF–Based SDW Materials*, “Chemistry and Properties of Low–Dimensional Conductors and Superconductors” Symposium at the 1995 PacifiChem Meeting, Honolulu, HI, Dec. 1995.
- Spectroscopic Studies of Spin–Peierls Compounds in a Magnetic Field*, Department of Chemistry, Syracuse University, Syracuse, NY, Nov. 7, 1995.
- Magnetic Field Effects in Solids*, Department of Chemistry, State University of New York at Brockport, Brockport, NY, Oct. 3, 1995.
- Magnetic Field Effects in Solids*, Department of Chemistry, State University of New York at Geneseo, Geneseo, NY, Sept. 26, 1995.
- H–T Behavior of the Spin–Density Wave Condensate in $(TMTSF)_2AsF_6$* , Department of Physics, State University of New York at Binghamton, Binghamton, NY, Feb. 13, 1995.
- H–T Behavior of the Spin–Density Wave Condensate in $(TMTSF)_2AsF_6$* , Xerox Webster Research Center, Webster, NY, Nov. 11, 1994.
- Spectral Studies of Low–Dimensional Electronic and Magnetic Solids*, Department of Chemistry, State University of New York at Binghamton, Binghamton, NY, Oct. 14, 1994.
- Microwave Dielectric Studies of the Spin–Density Wave State in $(TMTSF)_2PF_6$* , Molecular Sciences Research Center, Pacific Northwest Laboratories, Richland, WA, June 28, 1994.
- Microwave Dielectric Studies of the Spin–Density Wave State in $(TMTSF)_2PF_6$* , CST–14, Los Alamos National Laboratory, Los Alamos, NM, March 11, 1994.
- Spectral Studies of Low–Dimensional Electronic and Magnetic Solids*, University of Missouri at St. Louis, St. Louis, MO, Feb. 28, 1994.

Experimental Studies of Structural Phase Transitions in Semiconducting Organic Charge-Transfer Salts, Department of Physics, Université de Sherbrooke, Sherbrooke, Canada, Nov. 11, 1993.

Experimental Studies of Structural Phase Transitions in Semiconducting Organic Charge-Transfer Salts, Department of Physics, University of California at Santa Barbara, Santa Barbara, CA, Dec. 10, 1992.

Optical Properties of $NPrQn(TCNQ)_2$ through the Structural Phase Transition, Department of Chemistry, University of Florida, Gainesville, FL, April 16, 1991.

Presentations

Z. Zhu, J.L. Musfeldt*, Y.J. Wang, J. Sarrao, Z. Fisk, H. Negishi, M. Inoue, *Far Infrared Investigations of $\eta\text{-Mo}_4\text{O}_{11}$: Using a Magnetic Field to Open the Gap*, to be presented at Low Energy Excitations in Solids, June 1999, Pécs, Hungary.

V.C. Long*, J.L. Musfeldt, K. Kamarás, Y. Iwasa, *Far Infrared Investigations of Symmetry Breaking in C_{60} Pressure Polymers*, to be presented at Low Energy Excitations in Solids, June 1999, Pécs, Hungary.

V.C. Long*, J.L. Musfeldt, X. Wei, A. Revcolevschi, *Optical Studies of Doped GeCuO_3 Systems in High Magnetic Fields*, American Physical Society Meeting, March 1999, Atlanta, GA.

V.C. Long*, J.L. Musfeldt, K. Kamarás, Y. Iwasa, *Far Infrared Investigations of Symmetry Breaking in C_{60} Pressure Polymers*, American Physical Society Meeting, March 1999, Atlanta, GA.

Z. Zhu*, V.C. Long, J.L. Musfeldt, X. Wei, J. Sarrao, Z. Fisk, H. Negishi, and I. Inoue, *Infrared Properties of $\eta\text{-Mo}_4\text{O}_{11}$ in High Magnetic Fields*, American Physical Society Meeting, March 1999, Atlanta, GA.

Z. Zhu*, J.L. Musfeldt, Y.J. Wang, J. Sarrao, Z. Fisk, H. Negishi, and I. Inoue, *Infrared Properties of $\eta\text{-Mo}_4\text{O}_{11}$ in High Magnetic Fields*, American Physical Society Meeting, March 1999, Atlanta, GA.

I. Olejniczak*, J.L. Musfeldt, and G.C. Papavassiliou, *Optical Properties of the Organic Metal $\tau\text{-(EDO-S,S-DMEDT-TTF)}_2(\text{AuBr}_2(\text{AuBr}_2)_{0.75})$* , American Physical Society Meeting, March 1999, Atlanta, GA.

J. Dong*, J.L. Musfeldt, J.A. Schlueter, J.M. Williams, *Optical Properties of $(\text{ET})_2\text{SF}_5\text{CH}_2\text{CF}_2\text{SO}_3$: a Novel Superconductor with Large Discrete Counterions*, American Physical Society Meeting, March 1999, Atlanta, GA.

Z. Zhu, V.C. Long, J.L. Musfeldt*, Y.J. Wang, X. Wei, J. Sarrao, Z. Fisk, M. Sasaki, and M. Inoue, *Spectroscopic Studies of $\eta\text{-Mo}_4\text{O}_{11}$ as a Function of Magnetic Field*, Physical Phenomena at High Magnetic Fields III, October 1998, Tallahassee, FL.

V.C. Long*, J.L. Musfeldt, K. Kamarás, and A. Schilder, *Far-Infrared Study of C_{60} Tetraphenylphosphonium Iodide*, International Congress on Synthetic Metals, July 1998, Montpellier, France.

- J. Dong, J.L. Musfeldt*, J.A. Schlueter, and J.M. Williams, *Optical Properties of $(ET)_2SF_5CH_2CF_2SO_3$: a Novel Superconductor with Large Discrete Counterions*, International Congress on Synthetic Metals, July 1998, Montpellier, France.
- J.S. Lee, M.B. Preiss, G. Li, J.L. Musfeldt*, K.P. Mooney, M.J. Naughton, C. Rivera, L. Mihaly, and P. Naughton, *A Distributed Network Based Materials Course*, 7th Annual SUNY Conference on Instructional Technology, May 1998, Cortland, NY.
- V.C. Long*, J.L. Musfeldt, K. Kamarás, B. Gotschy, and H. Klos, *Far-Infrared Studies of $(P(C_6H_5)_4)_2C_{60}I$* , American Physical Society Meeting, March 1998, Los Angeles, CA.
- J. Dong*, J.L. Musfeldt, J.A. Schlueter, and J. Williams, *Optical Properties of $(BEDT-TTF)_2SF_5CH_2CF_2SO_3$ – a Novel Superconductor*, American Physical Society Meeting, March 1998, Los Angeles, CA.
- J. Dong*, J.S. Lee, J.L. Musfeldt, L.T. Montgomery, *Far-Infrared Studies of $(TMTSF)_2PF_6$: Where is the Gap?*, American Physical Society Meeting, March 1998, Los Angeles, CA.
- S. Baker, J. Dong*, G. Li, J.L. Musfeldt, J.A. Schlueter, and J. Williams, *Infrared Studies of Low-Temperature Symmetry Breaking in ET-Based Organic Molecular Conductors*, American Physical Society Meeting, March 1998, Los Angeles, CA.
- Z.T. Zhu*, J.L. Musfeldt, S. Uji, J. Sarro, and Z. Fisk, *Optical Studies of the Charge Density Wave Transitions in $\eta-Mo_4O_{11}$* , American Physical Society Meeting, March 1998, Los Angeles, CA.
- V.C. Long*, J.L. Musfeldt, T. Schmeidel, A. Revcolevschi, and G. Dhalenne, *Optical Investigation of the H-T Phase Diagram in $GeCuO_3$* , American Physical Society Meeting, March 1998, Los Angeles, CA.
- G. Li, J.L. Musfeldt*, Y.J. Wang, M. Almeida, A. Revcolevschi, and G. Dhalenne, *Far-Infrared Studies of Spin-Peierls Materials in a Magnetic Field*, American Physical Society Meeting, March 1998, Los Angeles, CA.
- K. Kamarás*, Y. Iwasa, L. Forro, and J.L. Musfeldt, *Infrared Investigations of C_{60} -Based Polymers*, Materials Research Society Meeting, Nov. 1997, Boston, MA.
- J.S. Lee, M.B. Preiss, G. Li, J.L. Musfeldt*, K. Mooney, M.J. Naughton, C. Rivera, L. Mihaly, and P. Naughton, *A Distributed Network-Based Course in Organic Molecular Conductors*, Materials Research Society Meeting, Nov. 1997, Boston, MA.
- J.L. Musfeldt*, G. Li, J.S. Lee, and M. Almeida, *Infrared Investigations of Organic Spin-Peierls Materials*, International Symposium on Crystalline Organic Metals, Superconductors, and Ferromagnets, March, 1997, Sesimbra, Portugal.
- G. Li*, J.S. Lee, J.L. Musfeldt, and M. Almeida, *Far-Infrared Studies of Magnetically Driven Phase Transitions in $MEM(TCNQ)_2$* , American Physical Society Meeting, March 1997, Kansas City, MO.
- G. Li*, J.L. Musfeldt, Y.J. Wang, M. Poirier, S. Jandl, A. Revcolevschi, and G. Dhalenne, *Optical Observation of the Interplay between Elastic and Magnetic Energy in a Spin-Peierls System*, American Physical Society Meeting, March 1997, Kansas City, MO.

- J.L. Musfeldt*, G. Li, and Y.J. Wang, *Spectroscopic Studies of Spin–Peierls Materials in a Magnetic Field*, International Conference on Synthetic Metals, July 1996, Snowbird, UT.
- V. Železný*, J.L. Musfeldt, and D.B. Tanner, *Electron–Phonon Coupling of TEA(TCNQ)₂ through the Structural Phase Transition*, July 1996, Conference on Advanced Materials for Optics and Electronics, Prague, Czech Republic.
- J.L. Musfeldt* and A. Kim, *Using Technology to Brighten Student Employment Prospects*, SUNY Conference on Instructional Technologies, May 1996, Oswego, NY.
- J.L. Musfeldt*, Y.J. Wang, M. Poirier, and S. Jandl, *An Infrared Investigation of the Broken Symmetry Ground State in GeCuO₃*, presented at the American Physical Society Meeting, March 1996, St. Louis, MO.
- J.L. Musfeldt*, M. Poirier, and C. Bourbonnais, *H–T Behavior of the Spin–Density Wave Condensate in (TMTSF)₂AsF₆*, American Physical Society National Meeting, March 1995, San Jose, CA.
- J.L. Musfeldt*, M. Poirier, and C. Bourbonnais, *Microwave Cavity Studies of the Spin–Density Wave State in (TMTSF)₂PF₆*, American Physical Society National Meeting, March 1994, Pittsburg, PA.
- J.L. Musfeldt*, M. Poirier, S. Jandl, and J.-P. Renard, *Raman Scattering and Microwave Cavity Studies of the Structural Phase Transition in the Quasi-One-Dimensional Ferromagnet TMNB*, American Physical Society National Meeting, March 1994, Pittsburg, PA.
- J.L. Musfeldt*, J.R. Reynolds, D.B. Tanner, J.P. Ruiz, J. Wang, and M. Pomeranz, *Photoabsorption and Photoluminescence of Polymers with Discrete Emitter Units*, American Chemical Society National Meeting, March 1994, San Diego, CA.
- J.R. Reynolds*, A.D. Child, J.L. Musfeldt, P. Balanda, B. Sankaran, F. Larmat, and D.B. Tanner, *Optical Absorption, Luminescence, and Redox Switching Properties of Polyphenylene Derivatives*, Materials Research Society National Meeting, November 1993, Boston, MA.
- J.L. Musfeldt*, V. Zelezný, D.B. Tanner, Y. Iwasa, and T. Koda, *Far-Infrared Properties of K- and Rb-TCNQ Through the Phase Transition*, American Physical Society National Meeting, March 1993, Seattle, WA.
- J.L. Musfeldt*, V. Zelezný, C. Porter, D.B. Tanner, P. England, and S. Etemad, *Linear and Photoinduced Absorption Spectra of Porous Silicon from the Far–infrared to the Near–infrared*, American Physical Society National Meeting, March 1992, Indianapolis, IN.
- J.L. Musfeldt*, D.B. Tanner, and M. Almeida, *Temperature Dependence of the Infrared Properties of DMTM(TCNQ)₂*, American Physical Society National Meeting, March 1991, Cincinnati, OH.
- K. Kamarás, C.S. Jacobsen, V. Zelezný, J.L. Musfeldt, and D.B. Tanner*, *Optical Properties of NPrQn (TCNQ)₂ Through the Phase Transition*, International Conference on Synthetic Metals, Sept. 1990, Tübingen, Germany.

J.L. Musfeldt*, D.B. Tanner, and K. Kamarás, *Optical Properties of $NPrQn$ (TCNQ)₂ Through the Phase Transition*, American Physical Society National Meeting, March 1990, Anaheim, CA.

K.B. Al-Jumah*, K.B. Wagener, T.E. Hogen-Esch, J.L. Musfeldt, and D.B. Tanner, *Planarizing Polyaromatic Polymers Based on Imine Chemistry*, American Chemical Society National Meeting, March 1989, Miami Beach, FL.

External Support

Dates	Title	Program	Amount
9/95-9/97	Infrared Studies of the Broken Symmetry Ground State in GeCuO ₃	Type G - PRF	\$20,000
6/96-6/00	Spectroscopic Studies of Magnetically Driven Phase Transitions in Organic and Inorganic Solids	Career Development Award DMR - NSF	\$330,000
6/96-9/97	An Infrared, ESR and Thermal Characterization of C ₆₀ Based Photopolymer	Collaboration Initiation Grant NRC	\$2,200
7/96-7/98	Thermal Analysis and Size Exclusion Chromatography as Teaching Tools in Polymer, Physical, and Biophysical Chemistry	ILI - NSF	\$66,350
8/96-8/98	Contributed to both the Pulsed ESR and SQUID Equipment Proposals	ARI - NSF	?
7/97	Visiting Scientist	NHMFL	\$5500
5/97-8/97	Research Experience / Undergraduates	DMR - NSF	\$6250
6/97-6/00	A Cooperative Study of C ₆₀ Photopolymers: Infrared, X-Ray, Thermal, and EPR Investigations	Intern. Prog. - NSF	\$45,011
5/98-8/98	Research Experience / Undergraduates	DMR - NSF	\$7500
7/98-7/99	Acquisition of an Infrared Microscope for Spectroscopic Characterization of Novel Materials	IMR - NSF	\$158,700
9/98-9/99	NSF/NATO Postdoctoral Fellowship Science and Engineering for Visiting Scientists from Cooperation Partner Countries, with Dr. Iwona Olejniczak	NSF/NATO	\$42,000
11/98-11/01	Spectroscopic Studies of Oxide-Based Materials in a Magnetic Field	BES - DOE	\$283,000
1/99-2/99	Visiting Scientist	NHMFL	\$5000

Internal Support

Dates	Title	Program	Amount
5/95–8/95	Infrared Studies of the Broken Symmetry Ground State in GeCuO ₃	Summer Faculty Research Program	\$4990
5/96–6/96	Modernization of Laboratory Space	Mini Grant Program	\$1000
4/96–12/96	Expanding the Classroom Experience through Technology	President's Innovation Fund	\$12969
5/97–8/97	New Directions in Distance Learning: A Distributed Network-Based Materials Course	Materials Research Institute	\$2800
5/98–8/98	On-Line Course Material in Solids	SUNY Learning Network	\$3000
4/99–6/99	ESR as a Probe of Spin Localization in Organic Solids	Mini Grant Program	\$1000

Honors

Visiting Scientist, National High Magnetic Field Laboratory, Tallahassee, FL. 7/97; 1/99-2/99.

Career Development Award, Division of Materials Research, National Science Foundation, 6/96–6/00.

Undergraduate Composite Center Fellowship, University of Illinois, Urbana, IL. 1/87–8/87.

James Scholar, University of Illinois, Urbana, IL. 8/83–8/84.

Service

Member and Secretary, National User's Committee, National High Magnetic Field Laboratory, Tallahassee, FL. Term: 5/98-4/01.

Organizer, *Spectroscopy at High Magnetic Fields Symposium*, 1998 American Physical Society National Meeting, Los Angeles, CA.

Co-organizer, *Spectroscopy at High Magnetic Fields Symposium*, 1999 American Physical Society National Meeting, Atlanta, GA.

Affiliations

Member, American Chemical Society.

Member, American Physical Society.

Member, Materials Research Society.

Personal information

U. S. citizen, born in Des Moines, IA, April 18, 1965.