

CURRICULUM VITAE

Long Y. Chiang

Department of Chemistry, University of
Massachusetts Lowell, 1 University Avenue,
Lowell, MA 01854, USA

(978)-934-3663 (tel.), (978)-934-3013 (fax)
e-mail: Long_Chiang@uml.edu

Birth year: 1949

EDUCATION

- 1980 Postdoctoral Fellow, Chemistry Department, Johns Hopkins University, Baltimore, Maryland
1979 Ph.D, Chemistry Department, Cornell University, Ithaca, New York
1977 Master of Science, Chemistry Department, Cornell University, Ithaca, New York
1975 Master of Science, Chemistry Department, SUNY and Cornell University, New York
1971 Bachelor of Science, Chemistry Department, National Cheng Kung University, Taiwan

PROFESSIONAL EXPERIENCE

- 1980–1981 **Research Scientist**, Department of Chemistry, Johns Hopkins University.
1981–1993 **Senior Research Staff**, Corporate Research Laboratory, Exxon Research and Engineering Company.
1994 **Adjunct Professor**, Dept. of Chemistry, National Cheng Kung University, Taiwan.
1994–2002 **Chair Research Fellow and Professor**, Center for Condensed Matter Sciences, National Taiwan University, Taiwan.
2001–2012 **Adjunct (Primary) Professor**, Department of Pathology and Laboratory Medicine, University of Toronto, Toronto, Canada.
2002–2012 **Associate Scientific Staff**, Department of Pathology and Laboratory Medicine, Mount Sinai Hospital, Toronto, Canada.
2001–present **Professor**, Department of Chemistry, University of Massachusetts at Lowell, Massachusetts.

HONOR

- 1994–1999 **Chair Research Fellowship**, Condensed Matter Sciences, National Taiwan University, Taiwan.
2013 **Featured speaker**, The 223rd ECS Annual Meeting, Toronto, Canada. “*Recent Development on Fullerene-based Nano-PDT Drugs for Photo-inactivation of Infectious Bacteria and Cancer Cells*”.
2015–2018 **Guest Professor**, HuaZhong University of Science and Technology, Wuhan, China.
2020 **Keynote speaker**, The 6th International Conference on Basic Sciences (ICBS), November 4, 2020, Maluku, Indonesia.
2020 **Fellow and Keynote speaker** of Advanced Materials Fellow Lecture, International Association of Advanced Materials (IAAM), Sweden.
2021 **Vebleo Fellow and Keynote speaker** of Nanomedicine, Nanomaterials, and Nanotechnology.

PROFESSIONAL ACTIVITIES

- 1995–2005 **Member**, Editorial Board, *Journal of Polymer Research*.

- 1992–1996 **Symposium Co-chair and Proceedings Co-editor**, Materials Research Society Symposia, *Electrical, Optical, and Magnetic Properties of Organic Solid State Materials I, II, and III*.
- 1996–2011 **Member**, International Advisory Committee, International Conference on Science and Technology of Synthetic Metals (ICSM).
- 1996–1998 **Regional Editor**, Journal of *Fullerene Science and Technology* (SCI).
- 1997–2000 **Chairperson**, Taiwan–Japan Cooperative Meeting of Fullerene Science and Technology.
- 2019–present **Editorial Board Member**, *Advances in Chemical Science* (Journal).
- 2014 **Editorial Board Member**, *HSOA Journal of Nanotechnology: Nanomedicine & Nanobiotechnology*
- 2014 **Editorial Board Member**, *Aperito Journal of NanoScience Technology*.
- 2015 **Guest Editor**, *Molecules* (Journal).
- 2018–present **Editorial Board Member of Materials Chemistry**, *Molecules* (Journal).
- 2018–present **Editorial Board Member**, *Science Nature* (Journal).

CURRENT RESEARCH PROGRAMS

- (1) Design, synthesis, and study of biological effect of well-defined polycationic, stereoregular, and molecularly self-organizable nanofullerene-derived nanovesicles (fulleroliposomes) as active free radical scavenging agents for neuron protection, preventive agent against damage during ischemia-reperfusion, and antioxidant against lipoprotein peroxidation. Similar derivatives were designed as bio-photonics and utilized as nano-PDT drugs, in combination of photoenergy, for one-photon absorptive (1PA)-photodynamic therapy (1 γ -PDT) and NIR two-photon absorptive 2 γ -PDT, to kill multiantibiotic-resistant bacteria and cancer/tumor cells for the protection of human from deadly infections and diseases.
- (2) Design and synthesis of ultrafast broadband photoresponsive, nonlinear multiphoton energy absorptive (2PA and MPA) hybrid fullerene-fluorene chromophore nanostructures for personnel/eye/sensor protection applications against high-intensity light-energy induced damage.
- (3) Design and synthesis of bulk photoenergy-responsive multiferroic nanomagnetic molecular metamaterials based on molecular self-assembled fullerosome-plasmonic nanoparticles for RF-tunable signal applications at microwave and radio frequencies.

PRESENTATIONS (since 2010)

- (1) *Novel Multicationic C_{60/70}-Driven Nanophotosensitizers with Enhanced Type-I Radical and Type-III Electron Photomechanism and Delivery Starburst-polymer/Devices for Treatment of Wound Infections*, Military Health Research Symposium (MHRS), Orlando, Florida, August 28, 2017.
- (2) *Decacationic [70]Fullerenyl-Light Harvesting Chromophore Conjugates for Efficient Photokilling of Infectious Bacteria*, SPIE Photonic West, Symposium of Photonic Diagnosis and Treatment of Infections and Inflammatory Diseases, San Francisco, California, January 30–February 1, 2018.
- (3) *Decacationic C₇₀ Nanoconjugates with Light-Harvesting Antenna for Photodynamic Bio-Application*, Material Research Society Annual Meeting, Boston, Massachusetts, November 25–30, 2018.
- (4) *Combinatorial Antimicrobial Therapy Using a Novel Decacationic Chlorin Mediated Antimicrobial Photodynamic Inactivation with Covalently-bonded Vancomycin against Methicillin-resistant Staphylococcus aureus Infections*, Conference on 17th International Photodynamic Association World Congress, Boston, Massachusetts, June 28–July 4, 2019.
- (5) *Multicationic C_{60/70}-Light Harvesting Antenna Conjugates as Nano-Photomedicine Approach for aPDI and PDT*, Advanced Materials Fellow Lecture, December 14, 2020.

- (6) *Nano-Photomedicine Approach for aPDI and PDT Using Photoresponsive Multicationic C_{60/70}-Light Harvesting Antenna Conjugates: from Nonlinear Photonics to Biophotonics*, Vebleo Lecture of Nanomedicine, Nanomaterials, and Nanotechnology, February 20, 2021.

PATENTS

1. *Synthesis of Polyquinoline by the Catalytic Dehydrogenative Polymerization of Tetrahydroquinoline*, U.S. Patent 4,727,135, February 23, 1988. L. Y. Chiang and R. R. Chianelli.
2. *Strongly Magnetic Organic Solid State Composition of Matter*, U.S. Patent 4,803,006, February 7, 1989. L. Y. Chiang and A. N. Bloch.
3. *Synthesis of Novel Highly Intrinsic Conducting Organic Polymers*, U.S. Patent 4,833,232, May 23, 1989. L. Y. Chiang.
4. *Polyquinolines by the Catalytic Dehydrogenative Polymerization of Tetrahydroquinoline*, Canadian Patent Pending 590120, 1989 and Japanese Patent Pending 01-032504, 1989. L.Y. Chiang and R. R. Chianelli.
5. *Quaternary Salts of Quinoline Oligomer as Metal Surface Protective Materials*, U.S. Patent 4,880,907, November 14, 1989. L. Y. Chiang.
6. *Quaternary Quinolinium Compounds*, European Patent Pending 89301068.6, 1989. L. Y. Chiang.
7. *Organic Nitrogen-containing Metal Sulfide Compositions, Their Preparation and Use*, U.S. Patent 4,971,938, November 20, 1990. L. Y. Chiang, J. W. Swirczewski and R. R. Chianelli.
8. *Method for Polymering Aromatic Heterocyclic Compounds*, U.S. Patent 4,981,949, January 1, 1991. L. Y. Chiang, J. W. Swirczewski and R. R. Chianelli.
9. *Synthesis of Quinoline and Substituted Quinoline Copolymers*, U.S. Patent 5,162,495, November 10, 1992. L. Y. Chiang and J. W. Swirczewski.
10. *Organic Nitrogen-containing Metal Sulfide Compositions, Their Preparation and Use*, Canadian Patent Pending 2,011,495, March 5, 1990. L. Y. Chiang, J. W. Swirczewski and R. R. Chianelli.
11. *Quinoline and Substituted Quinoline Copolymers*, European Patent Pending 90312303.2, November 9, 1990. L. Y. Chiang and J. W. Swirczewski.
12. *Polyquinoxaline Compositions and their Method of Preparation*, Japanese Patent Pending 03-024871, February 19, 1991 and Canadian Patent Pending 2035353, January 31, 1991. L. Y. Chiang and J. W. Swirczewski.
13. *Quinoline and Substituted Quinoline Copolymers*, Canadian Patent Pending 2028741, October 29, 1990 and Japanese Patent Pending 02-306985, 1990. L. Y. Chiang and J. W. Swirczewski.
14. *Quaternary Salts of Polymers Having Repeating Quinoxaline Moieties*, U.S. Patent 5,175,221, December 29, 1992. Inventor: L. Y. Chiang and J. W. Swirczewski.
15. *Polyquinoxaline Compositions and their Method of Preparation*, European Patent Pending 91301280.3, February 18, 1991. L. Y. Chiang and J. W. Swirczewski.
16. *New Polyquinoxaline Compositions and the Method of Preparation*, U.S. Patent 5,149,773, June 24, 1991. L. Y. Chiang and J. W. Swirczewski.
17. *Corrosion Inhibitor Composition*, European Patent Pending 92307737.4, August 25, 1992. L. Y. Chiang and T. A. Ramamarayanan.
18. *Highly Conducting Organic Polymer Thin Film Coatings*, U.S. Patent 5,151,478, September 29, 1992. L. Y. Chiang and W. Y. Lai.
19. *Oligoquinolinium Metal Oxide Salts as Sulfur Corrosion Inhibitors*, U.S. Patent 5,158,693, October 27, 1992. L. Y. Chiang and T. A. Ramamarayanan.
20. *Quaternary Oligoquinolinium Metal Oxide Salts as Sulfur Corrosion Inhibitors*, Norwegian Patent Pending 923339 and Australian Patent Pending 21331/92. L. Y. Chiang and T. A. Ramamarayanan.

21. *Formation of Polysubstituted Fullerenes*, U.S. Patent 5,177,248, January 5, 1993. L. Y. Chiang, R. Upasani, and J. W. Swirczewski.
22. *Synthesis of Sulfated Fullerenes*, U.S. Patent Pending 901,050, July 10, 1992. L. Y. Chiang, G. L. Miller, and J. M. Millar.
23. *Polysubstituted Fullerenes and their Preparation*, European Patent Pending 92309875.0, October 28, 1992, Canadian Patent Pending , and Japanese Patent Pending. L. Y. Chiang, R. Upasani, and J. W. Swirczewski.
24. *Polysubstituted Fullerenes and their Preparation*, U. S. Patent 5,294,732. March 15, 1994. L. Y. Chiang, R. Upasani, and J. W. Swirczewski.
25. *Synthesis of Sulfated Fullerenes*, European Patent Appl. EP 575129. L. Y. Chiang, G. L. Miller, and J. M. Millar.
26. *Polysubstituted Fullerenes and their Preparation (C-2608)*, U. S. Patent 5,416,188, 1995. L. Y. Chiang, R. Upasani, and J. W. Swirczewski.
27. *Fullerene Polymers*, U.S. Patent 5,635,581, 1997, L. Y. Chiang, L. Y. Wang, and K. H. Hsieh.
28. *Fullerene Polymers*, European Patent 0716044, 1999, Taiwan Patent filed on December 6, 1994, Japanese Patent 6-319878 filed on December 22, 1994, L. Y. Chiang, L. Y. Wang, and K. H. Hsieh.
29. *Fullerene Derivatives as Free-Radical Scavengers*, U.S. Patent 5,648,523, 1997. L. Y. Chiang.
30. *Fullerene-containing Metallocene*, U.S. Patent 6,002,035, 1999; *Deutsches Patent* DE 198,22,741. L. Y. Chiang and T. A. Canteenwala.
31. *Therapeutic Use of Water-soluble Fullerene Derivatives*, U.S. Patent 5,994,410, 1999. L. Y. Chiang, Y. L. Lai, M. C. Tsai, Y. T. Lee, H. C. Huang, M. K. Lai, and F. J. Lu.
32. *Fullerene Derivatives as Free-Radical Scavengers*, R.O.C. Patent 0495-2403-E, 2000. L. Y. Chiang.
33. *Fullerene Derivatives as Free-Radical Scavengers*, European Patent 0770,577, 2000. L. Y. Chiang.
34. *Polyorganofullerenes*, U.S. Patent 6,046,361 and 6,020,523, 2000. L. Y. Chiang.
35. *E-isomeric Fullerene Derivatives*, U.S. Patent 6,455,709, 2002. L. Y. Chiang and Vijayaraj Anantharaj.
36. *E-isomeric Fullerene Derivatives*, U.S. Patent 6,576,655, 2003. L. Y. Chiang and Vijayaraj Anantharaj.
37. *E-isomeric Fullerene Derivatives*, U.S. Patent 6,790,963, 2004. L. Y. Chiang and Vijayaraj Anantharaj.
38. *Chiral (1-Pyrrolino)fullerene Derivatives*, U.S. Patent 6,949,660, 2005. Manas Halder, Long Y. Chiang, Vijayaraj Anantharaj.
39. *Fullerene Compounds*, U.S. Patent 7,132,572, 2006. L. Y. Chiang and Loon-Seng Tan.
40. *Compositions comprising fullereryl mesochlorin nano-photosensitizers with covalently bound antibiotics and their uses in combination therapy*, the provisional patent application was filed on June 17, 2019.

PUBLICATIONS

1. *The Average Structure of 2,3-Diazabicyclo[2,2,1]hept-2-ene and 2,3-Diazabicyclo[2,2,2]oct-2-ene*, *J. Molecular Structure* **1975**, 26, 175, L. Y. Chiang, J. F. Chiang and M. Kratus.
2. *The Molecular Structure of Norbornene as Determined by Electron Diffraction and Microwave Spectroscopy*, *J. Molecular Structure* **1977**, 41, 67, L. Y. Chiang, J. F. Chiang, K. Lu, E. Sung and M. Harmony.
3. *The Molecular Structure of Monosubstituted Chlorocyclohexene by Gas Phase Electron Diffraction*, *J. Molecular Structure* **1980**, 64, 229, L. Y. Chiang, J. F. Chiang and K. Lu.
4. *Peri-Bridged Naphthalenes*, 4. *Chalcogen-Bridged Acenaphthylenes*, *Tetrahedron Letters* **1980**, 21, 4565, L. Y. Chiang and J. Meinwald.
5. *The Modified Synthesis of Tetraselenafulvalenes*, *J. Chem. Soc., Chem. Commun.* **1980**, 866, L. Y. Chiang, T. Poehler, A. Bloch and D. Cowan.

6. *Peri-Bridged Naphthalenes, 5. Improved Synthesis of 1-Thiaphenylene*, *J. Org. Chem.* **1981**, 46, 4060, L. Y. Chiang and J. Meinwald.
7. *Synthesis of 2,2'-Bithieno[3,4-d]-1,3-dithiole (DTTTF) and Some of Its Charge Transfer Salts*, *J. Chem. Soc., Chem. Commun.* **1981**, 920, P. Shu, L. Y. Chiang, T. Emge, D. Holt, T. Kistenmacher, T. Poehler, A. Bloch, J. Stokes, M. Lee and D. Cowan.
8. *Resistance Determination of Critical Magnetic Fields of Superconducting (TMTSF)₂ClO₄*, *Physica B&C (Amsterdam)* **1981**, 108, 1185, D. U. Gubser, W. W. Fuller, T. O. Poehler, D. O. Cowan, M. Lee, R. S. Potember and L. Y. Chiang.
9. *DBTTF-TCNQ: A Mixed-Valent Organic Charge Transfer Complex with a Mixed Stack Crystalline Motif*, *Solid State Commun.* **1981**, 39, 415, T. J. Kistenmacher, T. J. Emge, F. M. Wiygul, W. A. Bryden, J. S. Chappell, J. P. Stokes, L. Y. Chiang, D. O. Cowan and A. N. Bloch. *Magnetic Susceptibility and Resistive Transitions of Superconducting (TMTSF)₂ClO₄: Critical Magnetic Fields*, *Physical Review B* **1981**, 24, 478, D. U. Gubser, W. W. Fuller, T. O. Poehler, D. O. Cowan, M. Lee, R. S. Potember, L. Y. Chiang and A. N. Bloch.
10. *The Design, Synthesis and Characterization of the Molecular Components of Organic Conductors*, *Mol. Cryst. Liq. Cryst.* **1982**, 86, 1, D. O. Cowan, A. Kini, L. Y. Chiang, K. Lerstrup, T. O. Poehler and A. N. Bloch.
11. *Synthesis of Substituted Tetraselenafulvalenes from Dimethylphosgene Iminium Chloride*, *Mol. Cryst. Liq. Cryst.* **1982**, 86, 27, L. Y. Chiang, D. O. Cowan, T. O. Poehler and A. N. Bloch.
12. *Chemistry en-Route to 2,2'-Bithieno[3,4-d]-1,3-dithiol (DTTTF) and Its Selenium Analogue*, *J. Org. Chem.* **1983**, 48, 4713, L. Y. Chiang, P. Shu, D. Hold and D. O. Cowan.
13. *Calorimetric Studies Near the Smectic-A1-Smectic-A' Phase Transition of a Liquid Crystal Compound*, *Phys. Rev. A* **1984**, 30, 965, C. C. Huang, S. C. Lien, S. Dumrongrattana and L. Y. Chiang.
14. *Synchrotron X-ray Scattering Study of Freely Suspended Discotic Strands*, *Mol. Cryst. Liq. Cryst.* **1985**, 123, 205, C. R. Safinya, N. A. Clark, K. S. Liang, W. A. Varady and L. Y. Chiang.
15. *Charge Transfer Salts of Highly Oriented Fibers of Discotic Liquid Crystal HET-n*, *Mol. Cryst. Liq. Cryst.* **1985**, 125, 279, L. Y. Chiang, J. Stokes, C. Safinya and A. N. Bloch.
16. *Tellurium Containing Organic Metals*, *Mol. Cryst. Liq. Cryst.* **1985**, 125, 191, D. Cowan, M. Mays, M. Lee, R. McCullough, A. Bailey, K. Lerstrup, F. Wiygul, T. Kistenmacher, T. Poehler and L. Y. Chiang.
17. *Highly Oriented Fibers of Discotic Liquid Crystal*, *J. Chem. Soc., Chem. Commun.* **1985**, 695, L. Y. Chiang, C. Safinya, N. Clark, K. Liang and A. Bloch.
18. *Magnetization Study of the Field-Induced Transitions in Tetramethyltetraselenafulvalenium Perchlorate, (TMTSF)₂ClO₄*, *Phys. Rev. Letters* **1985**, 55, 969, M. J. Naughton, J. S. Brooks, L. Y. Chiang, R. V. Chamberlin and P. M. Chaikin.
19. *Giant Conductivity Resonance in the Spin-Density-Wave State of an Organic Conductor*, *Phys. Rev. Letters* **1985**, 55, 1216, H. H. Javadi, S. Sridhar, G. Gruner, L. Y. Chiang and F. Wudl.
20. *On the Kwak Transition: Field-Induced States in Two-dimensional Organic Conductors*, *Synthetic Metals* **1986**, 13, 45, P. M. Chaikin, E. J. Mele, L. Y. Chiang, R. V. Chamberlin, M. J. Naughton and J. S. Brooks.
21. *Spin-Density-Wave Transitions in a Magnetic Field*, *Phys. Rev. Letters* **1986**, 56, 972, J. F. Kwak, J. E. Schirber, P. M. Chaikin, J. M. Williams, H. H. Wang and L. Y. Chiang.
22. *Catalytic Dehydrogenative Polymerization of Tetrahydroquinoline. A Novel Synthesis of Polyquinoline*, *Proc. Polym. Mat. Sci. & Eng.* **1986**, 55, 473, L. Y. Chiang and R. R. Chianelli.
23. *Magnetic Field Induced Phases of (TMTSF)₂ClO₄*, *Physica (Amsterdam)* **1986**, 143B, 383, P. M. Chaikin, J. S. Brooks, R. V. Chamberlin, L. Y. Chiang, D. P. Goshorn, D. C. Johnston, M. J. Naughton and X. Yan.
24. *X-ray Study of the Nematic Phase and Smectic-A1 to Smectic-A Antiphase Transition in DB7NO₂*, *Phys. Rev. Letters* **1986**, 57, 432, C. R. Safinya, W. A. Varady, L. Y. Chiang and P. Dimon.

25. *Novel Catalytic Dehydrogenative Polymerization for Polyquinoline Synthesis*, *J. Chem. Soc., Chem. Commun.* **1986**, 1461, L. Y. Chiang and R. R. Chianelli.
26. *Magnetization Studies of the Field-Induced Transitions in $(TMTSF)_2ClO_4$* , *J. Mag. & Mag. Mat.* **1986**, 54-57, 637, J. S. Brooks, M. J. Naughton, R. V. Chamberlin, L. Y. Chiang and P. M. Chaikin.
27. *$(TMTSF)_2PF_6$: Evidence for a Unified Phase Diagram*, *Physica (Amsterdam)* **1986**, 143B, 397, J. F. Kwak, J. E. Schirber, P. M. Chaikin, J. M. Williams, H. H. Wang, and L. Y. Chiang.
28. *Synthesis and Study of Multiple Cationic Salts of Hexamethoxytriphenylene (HMTP)*, *Synthetic Metals* **1987**, 19, 697, L. Y. Chiang, D. C. Johnston, J. P. Stokes and A. N. Bloch.
29. *Novel Highly Intrinsic Conducting Organic Polymer Films Derived from the Vapor-phase Thermolysis of Polyquinoline*, *J. Chem. Soc., Chem. Commun.* **1987**, 304, L. Y. Chiang.
30. *Incommensurate Smectic Order at the Free Surface in the Nematic Phase of 4-n-Heptylphenyl-4'-(4''-nitrobenzoyloxy)benzoate ($DB7NO_2$)*, *Phys. Rev. A* **1987**, 35, 1868, B. M. Ocko, P. S. Pershan, C. R. Safinya and L. Y. Chiang.
31. *Facile Synthesis of 4-Alkylphenyl 4-(4-nitrobenzoyloxy)benzoate ($DBXNO_2$) and Its Cyano Analog ($DBXCN$)*, *Mol. Cryst. Liq. Cryst.* **1987**, 146, 137, L. Y. Chiang.
32. *High-field Behavior of Bis(tetramethyltetraselenafulvalene) Perchlorate $(TMTSF)_2ClO_4$: Generalized Quantum Hall effect and Wigner Crystallization*, *Jpn. J. Appl. Phys., Part 1* **1987**, 26, 575, R. V. Chamberlin, M. J. Naughton, X. Yan, P. M. Chaikin, S. Hsu, L. Y. Chiang and J. S. Brooks.
33. *An Efficient Synthesis of Alkyl and Aryl Chalcogenated Derivatives of Tetrathiafulvalene*, *J. Org. Chem.* **1987**, 52, 3445, S. Y. Hsu and L. Y. Chiang.
34. *The Nematic and Smectic-A1 Phases in $DB7NO_2$: High Resolution X-ray Study and Synthesis*, in *Incommensurate Crystals, Liquid Crystals, and Quasi-crystals*, Plenum, New York, 1987, page 271-281, C. R. Safinya and L. Y. Chiang.
35. *Magnetic Field Induced transitions in Organic Conductors: Experiments*, *NATO ASI Series, Low Dimensional Conductors and Superconductors*, Ed. by D. Jerome and L. G. Caron, Plenum Press, New York, 1987, p. 211, X. Yan, R. V. Chamberlin, L. Y. Chiang, M. J. Naughton, J. S. Brooks and P. M. Chaikin.
36. *Rapid Magnetic Oscillations in an Organic Conductor: Possibility of a New Type of Quantum Oscillation*, *Phys. Rev. B* **1987**, 36, 1799, X. Yan, M. J. Naughton, R. V. Chamberlin, S. Y. Hsu, L. Y. Chiang, J. S. Brooks and P. M. Chaikin.
37. *Improved Catalytic Dehydrogenative Polymerization Using Soluble Catalyst Precursors*, *Polym. Prep., Am. Chem. Soc., Div. of Polym. Chem.* **1988**, 29, 210, L. Y. Chiang, J. W. Swirczewski and R. R. Chianelli.
38. *Extreme Quantum Limit in a Quasi Two-dimensional Organic Conductor*, *Phys. Rev. Letters* **1988**, 60, 1189, R. V. Chamberlin, M. J. Naughton, X. Yan, L. Y. Chiang, S. Y. Hsu and P. M. Chaikin.
39. *Soluble Catalyst Precursors for Dehydrogenative Polymerization Reaction*, *Catalysis Letter* **1988**, 1, 177, L. Y. Chiang, J. W. Swirczewski, R. R. Chianelli and E. I. Stiefel.
40. *Calorimetric Evidence for High Magnetic Field Transitions in $(TMTSF)_2ClO_4$* , *Synthetic Metals* **1988**, 27, B29, J. S. Brooks, N. A. Fortune, M. J. Graf, P. M. Chaikin, L. Y. Chiang, S. Hsu.
41. *On the Shubnikov-De Haas Oscillations in $(TMTSF)_2ClO_4$* , *Synthetic Metals* **1988**, 27, B145, X. Yan, M. J. Naughton, R. V. Chamberlin, L. Y. Chiang, S. Y. Hsu and P. M. Chaikin.
42. *Reentrant Field Induced Spin Density Wave Transitions*, *Phys. Rev. Lett.* **1988**, 61, 621, M. J. Naughton, R. V. Chamberlin, M. Y. Azbel, S. H. Hsu, L. Y. Chiang and P. M. Chaikin.
43. *Synthesis of Organic Solids with a High Spin Density as an Approach to Organic Ferromagnets*, *Synthetic Metals* **1988**, 27, B639, L. Y. Chiang, D. C. Johnston, D. P. Goshorn and A. N. Bloch.
44. *Angular Dependence of Field Induced Transitions and Rapid Oscillations in $(TMTSF)_2ClO_4$* , *Solid State Commun.* **1988**, 66, 905, X. Yan, M. J. Naughton, O. S. Cheema, R. V. Chamberlin, S. Y. Hsu, L. Y. Chiang and P. M. Chaikin.

45. *Synthesis of Bis(oxydimethylene)tetrathiafulvalene (BODM-TTF) and BEDSe-TTF*, *Synthetic Metals* **1988**, *27*, B651, S. Y. Hsu and L. Y. Chiang.
46. *(TMTSF)₂ClO₄ in the Extreme Quantum Limit*, *Synthetic Metals* **1988**, *27*, B41, R. V. Chamberlin, M. J. Naughton, L. Y. Chiang, S. Hsu, X. Yan, S. Y. Hsu and P. M. Chaikin.
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48. *Synthesis of Branched Long Chain Aliphatic Primary Alkyl Bromides*, *Organic Preparations and Procedures International* **1989**, *21*, 129, A. R. Katritzky, A. Bieniek and L. Y. Chiang.
49. *Novel Dehydrogenative Condensation Reactivity of Rhenium Sulfide with Organic Heterocyclic Molecules*, *Solid State Ionics* **1989**, *32/33*, 988, L. Y. Chiang, J. W. Swirczewski, J. D. Passaretti, and R. R. Chianelli.
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