

GERALD J. MEYER

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Education:

Ph. D. (1989) **University of Wisconsin at Madison**, Department of Chemistry with Professor Arthur B. Ellis

B.S. (1985) **State University of New York at Albany**, Departments of Chemistry and Mathematics

Research Experience:

Professor: University of North Carolina at Chapel Hill, Department of Chemistry, (1/14 – present)
Bernard N. Baker Professor of Chemistry Johns Hopkins University (7/09 –12/13)
Chairman of Chemistry Johns Hopkins University (7/11 – 6/13)
Johns Hopkins University, Department of Chemistry (7/00 – 12/13)
Johns Hopkins University, Department of Materials Science & Engineering (7/00 – 12/13)

Associate Professor: Johns Hopkins University, Department of Chemistry (7/97 – 6/00)

Assistant Professor: Johns Hopkins University, Department of Chemistry (7/91 - 6/97)

Postdoctoral Associate: University of North Carolina at Chapel Hill with Thomas J. Meyer (10/89 - 6/91)

Research Assistant: University of Wisconsin-Madison (1/87 - 10/89)
State University of New York at Albany (2/84 - 8/85)

Memberships and Awards:

American Chemical Society	Langmuir Advisory Board (January 2001 – 2009)
Materials Research Society (1998-2008)	Inorganic Advisory Board Chemistry (January 2006-2008)
Electrochemical Society (1991- 2008)	Chemistry of Materials Advisory Board (January 2007 – 2013)
Kavli Frontiers of Science Alumna (2006)	J. Phys. Chem. Advisory Board (September 2012 – 2014)
Inter-American Photochemical Society	Boy Scouts of America, Eagle Rank (1980)
Golden Key Honor Society (1998)	Carrier of the Year Award (1977)
3M Untenured Faculty Award (1994)	IPS International Organizing Committee (2014-2016)

Research Group

Current: Graduate Students (Total 9): Rachel Bangel, Matthew Brady, Katherine Davis, Erica James, Wesley Swords, Tyler Motley, Sara Wehlin, Andrew Maurer, and Eric Piechota.

Post-Doctoral Associates Ludovic Troian-Gautier and Jenny Schneider

Undergraduates Luiz Veranda

Former: Ph.D. Graduates (Total 39): Darryn Achey (2013), Shane Ardo (2010), Laura A. Bauer (2004), Tim Barr (2017), Evan Beauvilliers (2017), Bryan Bergeron (2003), Nira S. Birenbaum (2005), Erinn Brigham (2015), Felix N. Castellano (1996), Chris Clark (2006), Brian Dimarco (2016), Byron Farnum (2012), Fereshteh Farzhad (1999), Amanda Fond (2007), James Gardner (2008), Georg Hasselman (2000), Todd A. Heimer (1996), Gerard Higgens (2006), Paul Hoertz (2003), Ke Hu (2014), Tamae Ito (2006), Ryan O'Donnell (2014), Patrik Johansson (2012), Minh C. Ko (1997), Feng Liu (2005), Andras Marton (2006), Amanda Morris (2009), Ping Qu (2001), Mark Ruthkosky (1998), Donald V. Scaltrito (2002), Aaron Staniszewski (2008), Jeremy M. Stipkala (1997), Jonathon Stromberg, (2007), Arnold Stux (2003), Atefeh Taheri (2013), Hailong Xia (2009), John Rowley (2011), William Ward (2014), and Mei Yang (2003).

Post-Doctoral Associates (Total 9): Maria Abrahamsson, Jovan Giamio, Craig Kelly, Guocan Li, Sherine O'Bare, Renato S. Sampaio, David Thompson, Cassandra Ward, and David Watson.

Undergraduates (Total 32): Michael Balfour, Ryan Balok, Eugene Ceppa, Erica Dun, Arthur Esswein, Lee Friedman, Robert Freundlich, Joseph Gordonecker, Jacqueline Heath, Angela Jones, Jeffrey Jou, Michelle Kim, David Klein, Taisei Kobayashi, Bert Lai, Talita Malewschik, Kanini Mjuguna, John O'Callahan, Emily Orimilikwe, Timothy Park, Rachelle Pinlac, Ely Rothblatt, Andrea Sachs, David Sambade, Shin Shoj, Solito Sumulong, Michael Thandasetti, Griffon McCutcheon, Matthew Ryan, Matthew Thompson, and Mark Zaros.

University Services

EFRC Director (2018-present):

Director of Department of Energy UNC Energy Research Frontier Center (EFRC) on solar fuels entitled AMPED.

CRAEMS Center Director (2000-2007):

Principle Investigator and director of an NSF Center for Collaborative Research Activities in Environmental Molecular Science (CRAEMS) entitled "Environmental Redox-Mediated Dehalogenation Chemistry."

Committees:

Chemistry Department Colloquium Chair, 1995-96	Faculty Student Interaction Program Host 1994
Chemistry Department Graduate Admissions 1994-04	Consortium for Nanostructured Materials Participant
Chemistry Department Graduate Admissions Chair 1999-00	Dunning Hall Renovation Ad Hoc Committee
Chemistry Department Graduate Student Advising 1992-99	Hughes Undergraduate Summer Program, 1998
Chemistry Department Oral Exams 1993-06	NSF Engineering Research Center, DOGEE, 1995
Committee for a New EPR for Chemistry 1995, 1996	Search Committee for Inorganic Hopkins Faculty, 1997
Graduate Student Recruitment Committee Chair, 2000	Search Committee for Physical Hopkins Faculty, 1996
Faculty Committee on Pre-Medical Education, 2007- present	Meyerhoff Bridge Summer Program, 2004-2008
Applied Physical Sciences Search Committee, 2014-present	Strategic Planning Committee Chair, 2014 - present

Courses Taught:

030.101 *Introductory Chemistry I*, Fall 1997, 1999, 2000, 2005, 2006, 2007, 2008
030.112 *Introductory Chemistry with Problem Solving*, Fall 2013
030.356 *Advanced Inorganic Laboratory*, Spring 1992 -98
030.449 *Chemistry of Inorganic Compounds*, Fall 1993 – 1995, Spring 2010, Fall 2013
030.466 *Physical and Analytical Methods*, Fall 1996, 1998, 2006
030.611 *Electron Transfer*, Fall 1992, Spring 1999, 2001, 2009
030.688 *Physical Inorganic Methods*, Spring 2006, 2008
Chem 451 *Theoretical Inorganic Chemistry*, Fall 2016, 2017
Chem 452 *Electronic Structure*, Spring 2015, 2016

New Courses Developed:

Advanced Inorganic Laboratory: Designed and offered for the first time in 1992 as required by the American Chemical Society (ACS) for a certified degree. The ACS Committee on Professional Training reviewed the lab course as excellent.

Physical and Analytical Methods: The objective is to teach the fundamental principles upon which modern analytical instrumentation is based. The course is designed for senior undergraduate and first year graduate students.

Electron Transfer: The ubiquitous and essential role electron transfer processes play in many physical, chemical, and biological processes is highlighted in this course. Theory, techniques, and literature examples are discussed.

Physical Inorganic Methods: This course provides fundamental examples of the kinds of information that can be obtained by applications of methods to inorganic chemistry. Topics covered include symmetry, group theory, spectroscopy, magnetism and ionization methods.

Outside Services

Deputy Editor of ACS-Applied Energy Materials, 2017 – present.

Associate Editor of ACS-Applied Materials & Interfaces, May 2012- 2018.

President of the Inter-American Photochemical Society (I-APS), July 2015 – 2018.

Conference and Workshop Co-Organizer:

1. "Photochemistry" Gordon Research Conference, Boston, MA, July 2011.
2. "Electron Donor-Acceptor Interactions" Gordon Research Conference, Newport RI, July 2010.
3. NSF Workshop on Sustainability and Chemistry, Arlington VA, May 30-June 1 2006.
4. XIVth Inter-American Photochemical Society (I-APS) Meeting, Clear Water Beach FL, January 2-5, 2003.

Symposium Co-Organizer:

1. "PCET for Solar Fuel Production" 255th A.C.S Meeting, INORG Division, New Orleans LA March, 2018.
2. "Organic-Inorganic Photocells" 240th A.C.S. Meeting, COLL Division, Boston MA, August, 2010.
3. "Science & Technology of Next Generation Photovoltaics" 232nd A.C.S. Meeting, PMSE Division, San Francisco CA, September, 2006.

4. "Nanostructured Electronic and Photonic Materials" 200th Electrochem. Soc. Meeting, Philadelphia, PA, 2002.
5. "State of the Art: Semiconductor and Metal Nanoparticles for Light Energy Conversion" 222nd A.C.S. Meeting, Chicago, IL, 2001.
6. "Nanostructured Materials in Electrochemistry" 187th E.C.S. Meeting, Reno, NV May, 1995.

Panel Review and Workshop Participant:

1. "Catalytic H₂ Generation (H₂Gen)" National Science Foundation (NSF), Arlington, VA, February 11-12, 2016.
2. "Catalysis for Energy" National Science Foundation (NSF), Arlington, VA, March 1-2, 2012.
3. "Germany-USA Conference on Energy and Climate Research" NSF, Arlington, VA, February 18, 2010.
4. "Molecular Solar Workshop", National Science Foundation, Estes Park, CO, September 4-9, 2007.
5. Solar Energy Technologies Program Review, Department of Energy, Denver CO November 6-9, 2005.
6. "Basic Research Needs for Solar Energy Utilization", Department of Energy, Bethesda MD, April 18-21, 2005.
7. Review of Notre Dame Radiation Laboratory, Notre Dame, IN April 17-19, 2002.
8. "Career Grants", National Science Foundation, Arlington, VA Oct 23-24, 2000.
9. "Small Business Innovative Research/Small Business Technology Transfer" NSF, Arlington, VA Sept. 14, 1999.
10. "Basic Research Opportunities in Photovoltaics" NREL, Seattle, WA May 3, 1999.
11. "Research Opportunities in Photochemical Sciences" Department of Energy, Estes Park, CO February 5-8, 1996.

Invited Presentations

National/Governmental Laboratories (8 Total): Argonne National Laboratory, Argonne IL; Army Research Laboratory at Adelphi, MD; Brookhaven National Laboratory, Upton NY; Los Alamos National Laboratory, Los Alamos NM; National Institute of Standards, Gaithersburg MD; National Renewable Energy Laboratory, Golden CO; Office of Naval Research, Washington DC; and the US Naval Academy, Annapolis, MD.

Industry (8 Total): BP Solar, Taona VA; DuPont, Wilmington DE; GE Global Research, Schenectady NY; Pittsburg Paint & Glass, Pittsburg PA; Polysciences Inc., Warrington PA; Rohm & Haus, Philadelphia PA; 3M Company, St. Paul MN; and Watson Pharmaceuticals, Salt Lake City UT.

US Universities and Colleges (96 Total): Amherst College, Amherst MA; Arizona State University, Tempe AZ; Auburn University, Auburn AL; Bloomsburg University, Bloomsburg PA; Bowdoin College, Brunswick, ME; Bowling Green State University, Bowling Green OH; Brigham Young University, Provo UT; California Institute of Technology, Pasadena CA; Case Western Reserve University, Cleveland OH; City College of New York, New York NY; Catholic University of America, Washington DC; Colorado State University, Fort Collins CO; Davidson College, Davidson, NC; Drexel University, Philadelphia PA; Duke, Durham NC; Eastern College, St. David's PA; Emory, Atlanta GA; Furman University, Greenville SC; George Mason University, Fairfax VA; George Washington University, Washington DC; Georgetown University, Washington DC; Georgia Institute of Technology, Atlanta GA; Gettysburg College, Gettysburg PA; Goucher College, Towson MD; Hood College, Frederick, MD; Howard University, Washington DC; Indiana University, Bloomington, IN; Johns Hopkins University, Baltimore MD; La Salle University, Philadelphia PA; Lebanon Valley College, Annville PA; Lincoln University, Lincoln PA; Loyola College, Baltimore MD; Marquette, Milwaukee WI; Michigan State University, East Lansing MI; Muhlenburg College, Allentown PA; North Carolina State University, Raleigh, NC; Northwestern University, Evanston IL; Ohio State University, Columbus OH; Ohio University, Athens, OH; Penn State University, College Station PA; Princeton University, Princeton NJ; Rensselaer Polytechnic Institute, Troy, NY; Rice University, Houston TX; Rochester University, Rochester NY; Roger Williams University, Bristol RI; Rutgers University, Passaic NJ; Rutgers University, Newark NJ; St. Michael's College, Burlington, VT; SUNY-Binghamton, Binghamton NY; SUNY-Buffalo, Buffalo NY; Temple University, Philadelphia PA; Towson University, Towson MD; Tulane University, New Orleans LA; University of Alabama, Birmingham AL; University of California, Berkeley CA; University of California, Irvine CA; University of California, Los Angeles CA; University of California, Riverside CA; University of California, San Diego CA; University of California, Santa Barbara CA; University of Chicago, Chicago IL; University of Delaware, Newark DE; University of Florida, Gainesville FL; University of Kentucky, Lexington KY; University of Maryland, College Park MD; University of Maryland at Baltimore County, Catonsville, MD; University of Maryland at Baltimore, Baltimore MD; University of Massachusetts-Boston; University of Miami, Miami FL; University of Minnesota, Minneapolis, MN; University of New Hampshire, Durham, NH; University of North Carolina, Chapel Hill NC; University of North Carolina, Greensboro NC; University of South Carolina, Columbia SC; University of Southern California, Los Angeles, CA; University of Pennsylvania, Philadelphia PA; University of Pittsburgh, Pittsburgh, PA; University of Richmond, Richmond VA; University of Texas at Houston, Houston TX; University of Utah, Salt Lake City UT; University of Washington, Seattle WA; University of Wisconsin, Madison WI; University of Wyoming, Laramie WY; Utah State, Logan UT; Vanderbilt University, Nashville, TN; Virginia Tech, Blacksburg VA; Virginia Wesleyan College, Norfolk VA; Wake Forest University, Winston-Salem NC; Washington University, St. Louis MO; Wayne State University, Detroit MI; Washington College, Chestertown MD; West Virginia University, Morgantown WV; and William Paterson University, Wayne NJ.

International Universities and Colleges (19 Total): Academia Sinica, Taipei Taiwan; Catholic University of Chile, Temuco Chile; Chalmers University, Gothenburg Sweden; Fudan University, Shanghai, China; Harbin Institute of Technology, Harbin China; Imperial University, London England; Lund University, Lund Sweden; Nanyang Technological University, Singapore; Pontifical Catholic University of Chile, Santiago Chile; Stockholm University, Stockholm Sweden; KTH Royal Institute of Technology, Stockholm Sweden; Ciudad Universitaria, Buenos Aires Argentina; Unidad Mérida, Mérida, Yucatán, México; Universidad De Santiago De Chile, Santiago Chile; University of Calgary, Alberta Canada; University of Ferrara, Ferrara Italy; University of Strasbourg, Strasbourg, France; and Uppsala University, Uppsala, Sweden.

Invited Presentations at Professional Meetings (2013→present):

John Albert Southern Lecture, Furman University, Greenville SC (February 12, 2019)

The Quest for Sustainable and Renewable Energy

22nd International Conference on Photochemical Conversion and Storage of Solar Energy, Hefei, China (July 31, 2018)

Electronic Coupling at Dye-Sensitized TiO₂ Interfaces Lowers the Free Energy Change that Accompanies Electron Transfer

Photo-IUPAC, Dublin Ireland (July 10, 2018)

Excited-State Sensing, Release, and Oxidation of Halide Ions

The Solar Energy Research Conference (SERC) at SERMACS, Charlotte NC (November 9, 2017)

Dye-Sensitized Water Oxidation

The 7th Chemical Sciences and Society Summit (CS3), Solar Energy & Photonics for a Sustainable Future, Dalian China (September 6, 2017)

Artificial Photosynthesis and CO₂ Reduction

2017 EFRC-Hub DOE Contractor's Meeting, Washington DC (July 25, 2017)

Multi-electron and proton transfers for solar water oxidation

28th International Conference on Photochemistry, Strasbourg, France (July 18, 2017)

Dye-Sensitized Hole and PCET Transfer for Water Oxidation

22nd International Symposium on Photochemistry and Photophysics of Coordination Compounds (ISSPPCC), Oxford, England (July 10, 2017)

Iodide Photo-oxidation

Applications of Photoactive Coordination Compounds, University of St. Andrews, Scotland (July 6, 2017)

MLCT Excited States

39th DOE Solar Photochemistry Contractor's Meeting, Gaithersburg, MD (June 8, 2017)

Electron Transfer Dynamics in Efficient Molecular Solar Cells

Resource Chemistry Workshop, Shanghai Normal University, Shanghai China (May 16, 2017)

Applications of Dye-Sensitization in the Production of Electrical Power and Chemical Fuels with Sunlight

The 2016 Makhoul Haddadin Symposium, American University of Beirut, Lebanon (October 20, 2016)

Dye Sensitization for Sustainable Energy

Southern California Inorganic Photochemistry (SCIP) Conference, Catalina Island, CA (September 17, 2016)

Charge Transfer Excited States at Metal Oxide Interfaces

"Manipulation of Energy & Electron Transfer in Molecules" 252nd National A.C.S. Meeting Philadelphia PA (August 24, 2016)

Light-driven, multi-electron transfer activation of a water oxidation catalyst

21st International Conference on Photochemical Conversion and Storage of Solar Energy, St. Petersburg Russia (July 27, 2016)

Photocatalytic Water Oxidation with Dye-Sensitized Metal Oxides

Invited Presentations at Professional Meetings (2013→) (Con't):

5th International Conference from Nanoparticles and Nanomaterials to Nanodevices, Porto Helio Greece (June 27, 2016)
Dye-Sensitized Core-Shell Nanostructures for Sustainable Energy.

“Inorganic Complexes for Solar Energy Harvesting” Pacificchem. Honolulu HA (December 18, 2015)
Ruthenium Polypyridyl Complexes that Photo-oxidize Halide Ions in Fluid Solution and at TiO₂ Interfaces

“International Conference on Materials Science” ICMS 2015 Valdivia Chile (October 19, 2015)
A Through-Bond Mechanism for Light Driven Interfacial Electron Transfer

“Biological Inspiration for Environmental Sustainability...” 250th National A.C.S. Meeting Boston, MA (August 19, 2015)
Bioinspired approaches for energy storage: Molecular excited states that drive bond formation

“Solar Solutions to Energy and Environmental Problems” TSRC, Telluride CO (August 4, 2015)
Dye-Sensitized Photoelectrosynthesis Cells

Hybrid Organic Photovoltaics (HOPV15), Rome Italy (May 11, 2015)
Halide Electron Transfer Chemistry for Solar Energy Conversion.

25th Inter-American Photochemical Society Conference, Sarasota, FL (January 3, 2015)
Do Atomistic Changes to Molecular Sensitizers Influence Interfacial Electron Transfer in Dye-Sensitized Solar Cells?

“Workshop on Applied Functional Materials Chemistry” KAUST, Saudi Arabia (October 27, 2014)
Local Electric Fields at Sensitized Semiconductor Interfaces

“9th Workshop of Computational Chemistry and Molecular Spectroscopy”, Punta de Tralca, Chile (October 15, 2014)
Hole Transfer Reactions at Semiconductor Interfaces

“Renewable Energy Generation at the Interface ... Experiment” 243rd National A.C.S. Meeting, San Francisco CA (August 13, 2014)
Mechanisms of iodide electron transfer chemistry for solar energy conversion

Hybrid Organic Photovoltaics (HOPV14), Lausanne Switzerland (May 12, 2014)
The Roles of Iodide Ions in Dye Sensitized Solar Cells

“Molecular Inorganic Chemistry at the Frontiers of Energy Research” 247th National ACS Meeting, Dallas TX (March 16, 2014)
Photoinduced electron transfer at TiO₂ interfaces sensitized to visible light with triarylamine-appended bis(tridentate) cycloruthenated complexes

“Photovoltaics, Solar Energy Materials & Technologies” XXII International Materials Research, Cancun Mexico (August 11, 2013)
New Donor-Acceptor Compounds for Dye Sensitized Solar Cells.

“Solar Solutions to Energy and Environmental Problems” Telluride Workshop, Telluride CO (August 7, 2013)
Mechanisms of Sensitization and Regeneration in Dye Sensitized Solar Cells.

“Photochemistry” Gordon Research Conference, Stone Hill MA (July 16, 2013)
Solar Photochemistry with Charge Transfer Excited States

“Organic and hybrid interfaces in excitonic solar cells: from fundamental science to applications” European Materials Research Society, Strausburg France (May 28, 2013)
Substitution of O with S Heteroatoms in Organic Dyes at TiO₂ Interfaces

30th Eastern Regional Photosynthesis, Woods Hole MA (April 12, 2013)
Electron Transfer at Sensitized TiO₂ Interfaces: Surface Electric Fields and Mechanisms for I-I Bond Formation

Publications:

Journal Publications:

- 1) **Evidence for Adduct Information at the Semiconductor-Gas Interface. Photoluminescent Properties of Cadmium Selenide in the Presence of Amines.** Meyer, G.J.; Lisensky, G.C.; Ellis, A.B. *J. Amer. Chem. Soc.* **1988**, *110*, 4914.
- 2) **A Selective Detector for Gas Chromatography Based on Adduct-Modulated Semiconductor Photoluminescence.** Lisensky, G.C.; Meyer, G.J.; Ellis, A.B. *Anal. Chem.* **1988**, *60*, 2531.
- 3) **Dioxygen-Copper Reactivity. Models for Hemocyanin: Reversible O₂ and CO Binding to Structurally Characterized Dicopper(I) Complexes Containing Hydrocarbon-Linked Bis[2-(2-pyridyl)ethyl]amine Units.** Karlin, K.D.; Haka, M.S.; Cruse, R.W.; Meyer, G.J.; Farooq, A.; Gultneh, Y.; Hayes, J.C.; Zubieta, J. *J. Amer. Chem. Soc.* **1988**, *110*, 1196.
- 4) **Semiconductor-Olefin Adducts. Photoluminescent Properties of Cadmium Sulfide and Cadmium Selenide in the Presence of Butenes.** Meyer, G.J.; Leung, L.K.; Yu, J.C.; Lisensky, G.C.; Ellis, A.B. *J. Amer. Chem. Soc.* **1989**, *111*, 5146.
- 5) **Time-Resolved Luminescence of Electron-Hole Pairs in Cd(S,Se) Graded Semiconductors.** Hane, J.K.; Prisant, M.G.; Harris, C.B.; Meyer, G.J.; Leung, L.K.; Ellis, A.B. *J. Phys. Chem.* **1989**, *93*, 7975.
- 6) **Modulation of the Time-Resolved Photoluminescence of Cadmium Selenide by Adduct Formation with Gaseous Amines.** Leung, L.K.; Meyer, G.J.; Lisensky, G.C.; Ellis, A.B. *J. Phys. Chem.* **1990**, *94*, 1214.
- 7) **Synthesis of Redox Derivatives of Lysine and Related Peptides Containing Phenothiazine or Tris(2,2'-bipyridine)ruthenium(II).** Peek, B.M.; Ross, G.T.; Edwards, S.W.; Meyer, G.J.; Meyer, T.J.; Erickson, B.W. *Int. J. Peptide Protein Res.* **1991**, *38*, 114.
- 8) **Photoelectrochemical Solar Energy Conversion at Nanostructured Materials.** Meyer, G.J.; Searson, P.C. *Interface* **1993**, *2*, 23-27.
- 9) **Molecular Level Photovoltaics: The Electro-Optical Properties of Metal Cyanide Complexes Anchored to Titanium Dioxide.** Heimer, T.A.; Bignozzi, C.A.; Meyer, G.J. *J. Phys. Chem.* **1993**, *97*, 11987-11994.
- 10) **Molecular Level Electron Transfer and Excited State Assemblies on the Surfaces of Metal Oxides and Glass.** Meyer, T. J.; Meyer, G.J.; Pfenning, B.; Schoonover, J. R.; Timpson, C.; Wall, J.F.; Kobusch, C.; Chen, X.; Peek, B.M.; Wall, C.G.; Ou, W.; Erickson, B. W.; Bignozzi, C.A. *Inorg. Chem.* **1994**, *33*, 3952-3963.
- 11) **Photophysical Properties of Ruthenium Polypyridyl Photonic SiO₂ Gels.** Castellano, F.N.; Heimer, T.A.; Thandasetti, M.; Meyer, G.J. *Chem. Mater.* **1994**, *6*, 1041-1048.
- 12) **Spectroscopic and Excited State Properties of Titanium Dioxide Gels.** Castellano, F.N.; Stipkala, J.M.; Friedman, L.A.; Meyer, G.J. *Chem. Mater.* **1994**, *6*, 2123-2129.
- 13) **Enhanced Spectral Sensitivity from Ru(II) Polypyridyl Photovoltaic Devices.** Argazzi, R.; Bignozzi, C.A.; Heimer, T.A.; Castellano, F.N.; Meyer, G.J. *Inorg. Chem.* **1994**, *33*, 5741-5749.
- 14) **Photodriven Energy Transfer from Cuprous Phenanthroline Derivatives.** Castellano, F.N.; Ruthkosky, M.; Meyer, G.J. *Inorg. Chem.* **1995**, *34*, 3-4.
- 15) **Dynamic Quenching of Porous Silicon Photoluminescence by Anthracene and 10-Methylphenothiazine.** Ko, M.C.; Meyer, G.J. *Chem Mater.* **1995**, *7*, 12-14.
- 16) **Optical and Electrical Properties of Nanostructured Titanium Dioxide Films.** Cao, F.; Oskam, G.; Searson, P.C.; Stipkala, J.; Farzhad, F.; Heimer, T.A.; Meyer, G.J. *J. Phys. Chem.* **1995**, *99*, 11974-11980.
- 17) **DNA Dynamics Observed with Long Lifetime Metal-Ligand Complexes.** Lakowicz, J.R.; Malak, H.; Gryczynski, I.; Castellano, F.N.; Meyer, G.J. *Biospectroscopy* **1995**, *1*, 163-168.

- 18) **Dynamic Electron Transfer in SiO₂ Aqua- and Alco- Gels.** Castellano, F.N.; Meyer, G.J. *J. Phys. Chem.* **1995**, *99*, 14742-14748.
- 19) **Photosensitization of Wide Bandgap Semiconductors with Antennae Molecules.** Bignozzi, C.A.; Argazzi, R.; Schoonover, J.R.; Meyer, G.J.; Scandola, F. *Sol. Energy Mater. Sol. Cells* **1995**, *38*, 187-198.
- 20) **Long-Lived Photo-Induced Charge Separation Across Nanostructured TiO₂ Interfaces.** Argazzi, R.; Bignozzi, C.A.; Heimer, T.A.; Castellano, F.N.; Meyer, G.J. *J. Am. Chem. Soc.* **1995**, *117*, 11815-11816.
- 21) **An Acetylacetonate Based Semiconductor-Sensitizer Linkage.** Heimer, T.A.; D'Arcangelis, S.T.; Farzad, F.; Stipkala, J.M.; Meyer, G.J. *Inorg. Chem.* **1996**, *35*, 5319-5324.
- 22) **Luminescence of Charge Transfer Sensitizers Anchored to Metal Oxide Nanoparticles.** Heimer, T.A.; Meyer, G.J. *J. Lumin.* **1996**, *70*, 468-478.
- 23) **Dynamic Quenching of Porous Silicon Excited States.** Ko, M.C.; Meyer, G.J. *Chem. Mater.* **1996**, *8*, 2686-2692.
- 24) **Electron Transport Properties in Porous Nanocrystalline TiO₂ Photoelectrochemical Cells.** Cao, F.; Oskam, G.; Searson, P.C.; Meyer, G.J. *J. Phys. Chem.* **1996**, *100*, 17021-17027.
- 25) **Photodriven Electron and Energy Transfer from Copper Phenanthroline Excited States.** Ruthkosky, M.; Castellano, F.N.; Meyer, G.J. *Inorg. Chem.* **1996**, *35*, 6406-6412.
- 26) **Light Induced Processes in Molecular Gel Materials.** Castellano, F.N.; Meyer, G.J. *Prog. Inorg. Chem.* **1997**, *44*, 167-209.
- 27) **Remote Electron Injection from Supramolecular Sensitizers.** Argazzi, R.; Bignozzi, C.A.; Heimer, T.A.; Meyer, G.J. *Inorg. Chem.* **1997**, *36*, 2-3.
- 28) **Light Induced Charge Separation Across Ru(II) Modified Nanocrystalline TiO₂ Interfaces with Phenothiazine Donors.** Argazzi, R.; Bignozzi, C.A.; Heimer, T.A.; Castellano, F.N.; Meyer, G.J. *J. Phys. Chem. B* **1997**, *101*, 2591-2597.
- 29) **Efficient Light-to-Electrical Energy Conversion: Nanocrystalline TiO₂ Films Modified with Inorganic Sensitizers.** Meyer, G.J. *J. Chem. Ed.* **1997**, *74*, 652-656.
- 30) **Long-Lifetime Metal Ligand Complexes as Luminescent Probes for DNA.** Malak, H.; Gryszynski, I.; Lakowicz, J.R.; Castellano, F.N.; Meyer, G.J. *J. Fluorescence* **1997**, *7*, 107-112.
- 31) **Long-Lived Charge Separated States Following Light Excitation of Cu(I) Donor-Acceptor Compounds.** Ruthkosky, M.; Kelly, C.A.; Castellano, F.N.; Meyer, G.J. *J. Amer. Chem. Soc.* **1997**, *119*, 12004-12005.
- 32) **Light Induced Charge Separation at Sensitized Sol-Gel Processed Semiconductors.** Stipkala, J.M.; Heimer, T.A.; Livi, K.J.T.; Meyer, G.J. *Chem. Mater.* **1997**, *9*, 2341-2353.
- 33) **The Limiting Role of Iodide Oxidation in Titanium Dioxide Photoelectrochemical Cells Sensitized with cis-Os(LL)₂(CN)₂.** Argazzi, R.; Bignozzi, C.A.; Heimer, T.A.; Hasselmann, G.M.; Meyer, G.J. *J. Phys. Chem B* **1998**, *102*, 7577-7581.
- 34) **Long-lifetime Ru(II) Complexes for the Measurement of High Molecular Weight Protein Hydrodynamics.** Szmazinski, H.; Castellano, F.N.; Terpetsching, E.; Dattelbaum, J.D.; Lakowicz, J.R.; Meyer, G.J. *Biochim, Biophys. Acta* **1998**, *1383*, 151-159.
- 35) **Electron and Energy Transfer from Cu(I) MLCT Excited States.** Ruthkosky, M.; Castellano, F.N.; Kelly, C.A.; Meyer, G.J. *Coord. Chem. Rev.* **1998**, *171*, 309-322.

- 36) **Sensitization of Nanocrystalline TiO₂ Films by Electropolymerized Thin Films.** Moss, J.A.; Stipkala, J.M.; Yang, J.C.; Bignozzi, C.A.; Meyer, G.J.; Meyer, T.J. Wen, X.; Linton, R.W. *Chem. Mater.* **1998**, *10*, 1748-1750.
- 37) **Efficient Light-to-Electrical Energy Conversion With Dithiocarbamate-Ruthenium Polypyridyl Sensitizers.** Argazzi, R.; Bignozzi, C.A.; Hasselmann, G.M.; Meyer, G.J. *Inorg. Chem.* **1998**, *37*, 4533-4537.
- 38) **Sensitization of Nanocrystalline TiO₂ Initiated by Reductive Quenching of Molecular Excited States.** Thompson, D.W.; Kelly, C.A.; Farzad, F.; Meyer, G.J. *Langmuir* **1999**, *15*, 650-653. (Invited manuscript for special issue on "Electrochemistry on Nanostructured Materials.")
- 39) **Excited State Deactivation of Ruthenium(II) Polypyridyl Chromophores Bound to Nanocrystalline TiO₂ Mesoporous Films.** Kelly, C.A.; Thompson, D.W.; Farzad, F.; Meyer, G.J. *Langmuir* **1999**, *15*, 731-737.
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