VITA

THOMAS A. MOORE

EDUCATION:

Texas Tech University	1968 B. A.
Texas Tech University (advisor Pill-Soon Song)	1975 Ph.D.

PROFESSIONAL EXPERIENCE:

University of Washington	
Department of Chemistry	
Research Associate (with Alvin Kwiram)	1973 – 1976
Lecturer	1974 – 1976
Arizona State University	
Department of Chemistry	
Assistant Professor	1976 – 1981
Associate Professor	1981 – 1985
Professor	1985 – 2011
Regents' Professor	2011 – present
Global Institute of Sustainability	
Distinguished Sustainability Scientist	2011 – present
Centre d'Etudes Nucléaires de Saclay, Gif-sur-Yvette, France	
Departement Biologie, Service Biophysique	
Visiting Scientist	1982 - 1983
Visiting Scientist	1984, 1987
Laboratoire de Physico-Chimie des Systémes Polyphases, Associé au CNRS (UA.330), Montpellier, France	
Visiting Scientist	1984,1986,1987,1988
Chercheur Associé au CNRS	1985
Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France	2005 – 2007.
Visiting Professor, Vrije Universiteit, Amsterdam	2011 – 2013

PROFESSIONAL ORGANIZATIONS:

American Chemical Society	
AAAS	
Inter-American Photochemical Society	
American Society for Photobiology	
Council Member	1982 – 1985
International Carotenoid Society	

OTHER ACTIVITIES AND AWARDS:

Founding Member, Center for the Study of Early Events in Photosynthesis at Arizona State University	1987

NSF Award for Special Creativity	1992 – 1994
Associate Editor, Photochemistry and Photobiology	1997 – 2002
Editorial Advisory Board, The Journal of Photoscience	1997 – present
Editorial Board, Carotenoids	1998 – present
Vannerberg Lecturer, Chalmers University of Technology, Göteborg, Sweden	1998
Co-Vice Chair, Electron Donor-Acceptor Interactions Gordon Conference (2000) and Co-Chair	2002
Assistant Chair, Undergraduate Programs, Department of Chemistry and Biochemistry, ASU	1997 – 2002
American Society for Photobiology Senior Research Award	2001
President Elect, American Society for Photobiology	2002
President, American Society for Photobiology	2003
Director, Photosynthesis Center, ASU	2004 – 2007
AzTE Technology Ventures Innovators of the Year Award	2006
3M Lecture in Materials Science, University of British Columbia	2007
Tito Scaiano Lecture, University of Ottawa	2008
Interim Director, Center for Bioenergy and Photosynthesis	2007 – 2008
Director, Center for Bioenergy and Photosynthesis	2008 – 2014
Elected AAAS Fellow	2008
Gerhard Closs Lecture, University of Chicago	2009
C.B. Purves Lecture, McGill University	2010
Hascoe Lecture, University of Connecticut	2012
Weed Lecture, University of Arizona	2013

PUBLICATIONS:

"Molecular-Orbital Studies of the Mechanism of Xanthine Oxidase-Catalyzed Oxidation of Purines, Especially 2-chloropurine," P. Song and T. A. Moore, *International J. Quantum Chem.*, **1**, pp. 699-719 (1967).

"Photodephosphorylation of Menadiol Diphosphate: A Model for Biological Quantum Conversion," P. Song and T. A. Moore, *Photochem. Photobiol.*, **7**, pp. 113-115 (1968).

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"The Nature of the Flavin Triplet and a Model for Biological Quantum Conversion," W. E. Kurtin, T. A. Moore and P. Song, *Molecular Luminescence*, (New York: Ed. E. C. Lim, W. A. Benzamin), pp. 569-588 (1969).

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"Ultraviolet Spectra of Coumarins and Psoralens," T. A. Moore, M. L. Harter and P. Song, *Journal Molecular Spectroscopy*, **40**, pp. 144-157 (1971).

"Luminescence Spectra and Photocycloaddition of the Excited Coumarins to DNA Bases," P. Song, M. L. Harter, T. A. Moore and W. C. Herdon, *Photochem. Photobiol.*, **14**, pp. 521-530 (1971).

"Molecular Luminescence Studies of Flavins. I. The Excited States of Flavins," T. A. Moore and P. Song, *J. Am. Chem. Soc.*, **94**, pp. 1730-1740 (1972).

"Excited States of Some Plant Pigments," Pill-Soon Song, Thomas A. Moore and Ming Sun, in: '*Chemistry of Plant Pigment*,' ACS Symposium, Academic Press, Chapter 4 (1972).

"Molecular Luminescence Studies of Flavins. II. Interactions Involving the Excited States," P. Song, T. A. Moore and W. E. Kurtin, *Z. Naturforsch.*, **27b**, p. 1011 (1972).

"Polarized Fluorescence Spectra of Retinol and Diphenyloctatetraene," T. A. Moore and P. Song, *Chem. Phys. Letters*, **19**, p. 128 (1973).

"Molecular Interactions in the Ground and Excited States of a Visual Pigment; Retinal," T. A. Moore and P. Song, *Nature, New Biology*, **243**, p. 30 (1973).

"Excited States and Reactivity of Carcinogenic Benzpyrene: A Comparison with Skin-Sensitizing Coumarins," T. A. Moore, W. W. Mantulin and Song. P-S, *Photochem. Photobiol.*, **18**, p. 185 (1973).

"On the Photoreceptor Pigment for Phototropism and Phototaxis: Is a Carotenoid the Most Likely Candidate?," P. Song and T. A. Moore, *Photochem. Photobiol.*, **19**, p. 435 (1974).

"Electronic Spectra of Carotenoids. β-Carotene," T. A. Moore and P. Song, *J. Mol. Spectrosc.*, **52**, p. 209 (1974).

"Electronic Spectra of Carotenoids. III. Schiff's Bases of Carotenal and Carotenones," T. A. Moore and P. Song, *J. Mol. Spectrosc.*, **52**, p. 224 (1974).

"An Investigation of the Triplet State of Flavins and Flavoproteins by Optical Detection of Magnetic Resonance," T. A. Moore and A. L. Kwiram, *Biochemistry*, **13**, p. 5403 (1974).

"Optically Detected Magnetic Resonance in the FAD and Glucose Oxidase Triplet States," Thomas A. Moore and Alvin L. Kwiram, '*Flavins and Flavoproteins*,' (Singer, T. P., ed.), ASP, Amsterdam (1976).

"Triplet Electronic Structure and Photoreactivity of 8-Methoxypsoralen," T. A. Moore, A. B. Montgomery and A. L. Kwiram, *Photochem. Photobiol.*, **24**, p. 83 (1976).

"Yearly Review. Optically Detected Magnetic Resonance in Biomolecules," T. A. Moore, *Photochem. Photobiol.*, **26**, p. 75 (1977).

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"A Digital Back-off for Computer Controlled Flash Spectrometers," F. S. Davis, G. A. Nemeth, D. M. Anjo, L. R. Makings, D. Gust and T. A. Moore, *Rev. Sci. Instrum.*, **58**, pp. 1629-1631 (1987).

"Photoinitiated Charge Separation in a Carotenoid-Porphyrin-Diquinone Tetrad: Enhanced Quantum Yields via Multistep Electron Transfers," D. Gust, T. A. Moore, A. L. Moore, D. Barrett, L. O. Harding, L. R. Makings, P. A. Liddell, F. C. De Schryver, M. van der Auweraer, R. V. Bensasson and M. Rougée, *J. Amer. Chem. Soc.*, **110**, pp. 321-323 (1988).

"A Carotenoid-Diporphyrin-Quinone Model for Photosynthetic Multistep Electron and Energy Transfer," D. Gust, T. A. Moore, A. L. Moore, L. R. Makings, G. R. Seely, X. Ma, T. T. Trier and F. Gao, *J. Amer. Chem. Soc.*, **110**, pp. 7567-7569 (1988).

"Photoinitiated Electron Transfer in Carotenoporphyrin-Quinone Triads: Enhanced Quantum Yields via Control of Reaction Exergonicity," T. A. Moore, D. Gust, S. Hatlevig, A. L. Moore, L. R. Makings, P. J. Pessiki, F. C. De Schryver, M. van der Auweraer, D. Lexa, R. V. Bensasson and M. Rougée, *Israel J. Chem.*, **28**, pp. 87-95 (1988).

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"A Carotenoid-Porphyrin-Diquinone Tetrad: Synthesis, Electrochemistry and Photoinitiated Electron Transfer," D. Gust, T. A. Moore, A. L. Moore, G. Seely, P. A. Liddell, D. Barrett, L. O. Harding, X. C. Ma, S.-J. Lee and F. Gao, *Tetrahedron*, **45**, 4867-4891 (1989).

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"Photonic Switching of Energy Transfer in a Photochromic Triad. Molecule-Based Half-Adder," J. Andréasson, S. D. Straight, B. Albinsson, T. A. Moore, A. L. Moore, D. Gust, XXI IUPAC Symposium on Photochemistry, Kyoto, Japan, April, 2006. (Presented by J. Andréasson)

"Concatenation of Antenna Function and Photoinduced Electron Transfer in Artificial Photosynthetic Molecules," D. Gust, T. A. Moore, A. L. Moore, 2006 Materials Research Society Spring Meeting, San Francisco, April, 2006. (Presented by D. Gust)

"Transitions to Sustainable Energy Systems: Combining Technology with Biology for Efficient Solar Energy Conversion," T. Moore, A. Moore and D. Gust, SOLAR- H Workshop, Gelsenkirchen, Germany, 25-28 April 2006. (Presented by T. Moore)

"Photochemical Switches and Logic Gates," D. Gust, T. A. Moore, A. L. Moore, 7th International Symposium on Functional π-Electron Systems, Osaka, Japan, May, 2006. (Presented by D. Gust)

"Concatenation of Antenna Function and Photoinduced Electron Transfer in Porphyrin-Containing Molecular Systems," D. Gust, T. A. Moore, A. L. Moore, 28th DOE Solar Photochemistry Research Conference, Airlie, VA, June, 2006

"Photochemistry of Artificial Photosynthetic Antenna-Reaction Center Complexes," D. Gust. T. A. Moore, A. L. Moore, 17th Inter-American Photochemical Society Winter Conference, Salvador, Bahia, Brazil, June, 2006. (Presented by D. Gust)

"Artificial Photosynthesis and Bio-inspired constructs for Solar Energy Conversion," T. A. Moore, A. L. Moore, D. Gust, Plenary Lecture, 16th International Conference on Photochemical Conversion and Storage of Solar Energy, Uppsala, Sweden, 2-7 July 2006. (Presented by T. Moore)

"Observations of Climate Change," T. A. Moore, Plenary Lecture, 16th International Conference on Photochemical Conversion and Storage of Solar Energy, Uppsala, Sweden, 2-7 July 2006.

"Bioinspired Energy Conversion Schemes," Ana L. Moore, Gary F. Moore, Michael Hambourger, Gerdenis Kodis, Miguel Gervaldo, Paul Liddell, Devens Gust and Thomas A. Moore. 20th International Symposium on Radical Ion Reactivity, July 2–6, 2006, Rome, Italy. (Presented by A. Moore)

"A Discussion of Bio and Bio-inspired Solutions to Provide Global-Scale Sustainable Energy for Human Use," T. A. Moore, A. L. Moore, D. Gust, ASP Photobiology School, 33rd Meeting of the American Society for Photobiology, San Juan, Puerto Rico, 8-12 July 2006. (Presented by T. Moore)

"Bio-inspired Energy Conversion Schemes," A. L. Moore, G. F. Moore, M. Hambourger, M. Gervaldo, P. A. Liddell, D. Gust and T. A. Moore, 33rd Meeting of the American Society for Photobiology, San Juan, Puerto Rico, 8-12 July 2006. (Presented by A. Moore)

"Bioinspired Energy Conversion Schemes," Ana L. Moore, Thomas A. Moore and Devens Gust, Gordon Research Conference on Chemistry and Biology of Tetrapyrroles, July 23–28, 2006, Salve Regina, Newport, Rhode Island. (Presented by A. Moore)

"Integrated Artificial Photosynthetic Antennas and Reaction Centers," D. Gust, Y. Terazono, P. A. Liddell, G. Kodis, V. Garg, J. Andréasson, M. Hambourger, T. A. Moore, and A. L. Moore, 62nd Southwest Regional Meeting of the American Chemical Society, Houston, TX, October, 2006. (Presented by D. Gust)

"Molecular Logic Based on Porphyrins, Fullerenes and Photochromes," D. Gust, T. A. Moore, A. L. Moore, POLYMEX 2006, Huatulco, Mexico, November, 2006. (Presented by D. Gust)

"Photoelectrochemical Hydrogen Generation: The Effect Of Redox Poise On Biocatalayst Interfaces," M. Hambourger, M. Gervaldo, D. Svedruzic, P. W. King, D. Gust, M, Ghirardi, A. L. Moore and T. A. Moore, 2007 Western Photosynthesis Conference, Ailomar, CA, January 4, 2007. (Presented by M. Hambourger)

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," T. A. Moore, M. Hambourger, G. Moore, A. L. Moore and D. Gust, Gordon Research Conference on Renewable Energy: Solar Fuels, January 21 – 26, 2007, Ventura, CA. (Presented by T. Moore)

"Bioinspired Energy Conversion Schemes," A. L. Moore, T. A. Moore, and D. Gust, 233rd American Chemical Society National Meeting, Chicago, IL, March 25 – 29, 2007. (Presented by A. L. Moore)

"Photochemical Switches and Logic Gates," D. Gust, J. Andréasson, S. D. Straight, T. A. Moore, A. L. Moore, International Conference on Molecular Machines and Sensors, Shanghai, China, May, 2007. (Presented by D. Gust).

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," T. A. Moore, A. L. Moore and D. Gust, Chemical Sciences Roundtable – Bio-inspired Fundamental Chemistry for Energy, Board of Chemical Sciences and Technology, National Academies of Science, May 14 – 15, 2007. (Presented by T. Moore)

"Supramolecular Structures for Photochemical Energy Conversion," D. Gust, T. A. Moore and A. L. Moore, 2007 Solar Photochemistry Research Conference, Airlie, VA, June 10 – 13, 2007. (Presented by D. Gust and A. L. Moore)

"Bio-inspired Energy Conversion Schemes," A. L. Moore, T. A. Moore, and D. Gust, Gordon Research Conference on Photochemistry, Bryant University, Smithfield, RI, July 8 – 13, 2007. (Presented by A. Moore)

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," T. A. Moore, A. L. Moore and D. Gust, Solar Energy and Artificial Photosynthesis, The Royal Society, London, July 17 – 19, 2007. (Presented by T. Moore)

“Photochemical Switches and Logic Gates,” D. Gust, J. Andréasson, S. D. Straight, T. A. Moore, A. L. Moore, 13th International Conference on Unconventional Photoactive Systems, Evanston, IL, August, 2007. (Presented by D. Gust).

“Hydrogen Production in a Hybrid Photoelectrochemical Biofuel Cell,” T. A. Moore, A. L. Moore and D. Gust, The 8th International Hydrogenase Conference, Breckenridge, CO, August 5 – 10, 2007. (Presented by T. Moore)

"Solar Power Plants: What Photosynthesis Can Teach Us About Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, ISOF Bologna, Italy, September, 2007. (Presented by D. Gust).

“Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion,” T. A. Moore, A. L. Moore, and D. Gust, Energy and Climate Change Workshop, San Juan de Puerto Rico, September 14, 2007. (Presented by T. A. Moore)

“Artificial Photosynthesis,” T. A. Moore, A. L. Moore, and D. Gust, Energy and Climate Change Workshop, San Juan de Puerto Rico, September 14, 2007. (Presented by A. L. Moore)

"Molecular Logic Elements via Photochromic Manipulation of Energy Transfer," D. Gust, S. D. Straight, J. Andreasson, G. Kodis, C.-D. Park, Y. Terazono, M. Hambourger, M. Gervaldo, A. L. Moore, T. A. Moore, 7th International Symposium on Photochromism, Vancouver, BC, October, 2007. (Presented by D. Gust).

“Bioinspired constructs that mimic the electron transfer between P680 and the OEC,” A. L. Moore, G. Moore, T. A. Moore, D. Gust, Symposium Rudi Berera, November 26, 2007 Vrije Universiteit, Amsterdam, (Presented by A. Moore)

“Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion,” T. A. Moore, A. L. Moore, and D. Gust, Symposium Rudi Berera, Vrije Universiteit, Amsterdam, November 26, 2007. (Presented by T. Moore)

“Bioinspired energy conversion schemes,” G. F. Moore, M. Hambourger, G. Kodis, M. Gervaldo, P. Liddell, D. Gust, T. A. Moore and A. L. Moore, 17th Western Photosynthesis Conference Asilomar Conference Center, Pacific Grove, California, 3-6 January 2008. (Presented by A. Moore)

“Artificial Photosynthesis,” T. A. Moore, CBB Workshop Clean Solar Fuels, Trippenhuis KNAW, Amsterdam, The Netherlands, January 31 – February 1, 2008.

“Artificial photosynthesis: Combining technology with biology for efficient solar energy conversion,” T. A. Moore, A. L. Moore, D. Gust, M. Hambourger, G. Moore, Amy Keirstead, Miguel Gervaldo, Division of Industrial & Engineering Chemistry: Session

NanoPower: Creating Energy for the Future, 235th American Chemical Society National Meeting, New Orleans, LA, April 6, 2008. (Presented by T. Moore)

"Energy conversion schemes inspired by photosynthesis," A. L. Moore, T. A. Moore, D. Gust, 91st Canadian Chemistry Conference, Edmonton, Alberta, Canada, May, 21-24 2008. (Presented by A. Moore)

"A Bioinspsired Construct that Mimics the Proton Coupled Electron Transfer Between $P680^{\bullet+}$ and the TyrZ-His190 Pair of Photosystem II," G. F. Moore, M. Hambourger, M. Gervaldo, A. Keirstead, G. Kodis, O. G. Poluektov, T. Rajh, D. Gust, T. A. Moore, and A. L. Moore, 2008 DOE Solar Photochemistry Research Conference, Wintergreen, VA, June, 2008.

"Bioinspired energy conversion schemes," G. F. Moore, M. Hambourger, G. Kodis, M. Gervaldo, P. Liddell, A. L. Moore, D. Gust, T. A. Moore, ICPP-5, Moscow, Russia, July 6-11, 2008. (Presented by A. L. Moore)

"Bioinspired Approaches to Photovoltaics," D. Gust, T. A. Moore, A. L. Moore, PV 2008 Workshop on Photovoltaics, Rio Rico, AZ, October, 2008. (Presented by D. Gust)

"Artificial Photosynthesis and bio-inspired chemistry: Combining technology with biology for efficient solar energy conversion" A. L. Moore, D. Gust, T. A. Moore, AVS 55th International Symposium & Exhibition, Biomaterial Interfaces Symposium, Boston, MA, October 19, 2008. (Presented by T. Moore)

"Bioinspired Approaches to Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, Arizona Workshop on Renewable Energy, Tempe, AZ, November, 2008. (Presented by D. Gust)

"Design of a Photoelectrochemical Biofuel Cell for Hydrogen Production," A. L. Moore, T. A. Moore, D. Gust, Arizona Workshop on Renewable Energy, Tempe, AZ, November, 2008. (Presented by A. L. Moore)

"Proton Coupled Electron Transfer in Bioinspired Mediators," G. F. Moore, M. Hambourger, M. Gervaldo, D. Gust, T. A. Moore, A. L. Moore, 18th Western Photosynthesis Conference, Asilomar Conference Grounds, Pacific Grove, CA, 8-11 January 2009. (Presented by G. Moore)

"Bioinspired Approaches to Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, Securing Our Energy Future: Next Generation Photovoltaics and Solar Fuels, University of North Carolina at Chapel Hill, Chapel Hill, NC, January, 2009. (Presented by D. Gust)

"Artificial Photosynthesis," A. L. Moore, D. Gust, T. A. Moore, Conferencia Energía y Cambio Climático, Universidad Complutense de Madrid, Madrid, España, 6 March 2009. (Presented by A. Moore)

"72 Billion People on Earth? You must be crazy - J. Diamond. Energy, finite resources and near-infinite technology," A. L. Moore, D. Gust, T. A. Moore, Conferencia Energía y Cambio Climático, Universidad Complutense de Madrid, Madrid, España, 6 March 2009. (Presented by T. Moore)

"Design of Catalyst–Sensitizer Assemblies for Visible Light Water Photolysis," A. L. Moore, D. Gust, T. A. Moore, US-Argentina Workshop on Nanomaterials, Bariloche, Argentina, March 15–17, 2009. (Presented by A. Moore)

"Biological, Hybrid, & Bio-Inspired Materials for Efficient Energy Conversion," A. L. Moore, D. Gust, T. A. Moore, US-Argentina Workshop on Nanomaterials, Bariloche, Argentina, March 15–17, 2009. (Presented by T. Moore)

"Engineering Stability and Adaptability into Solar Cells," J. Zaks, D. Gust, A. Moore, T. Moore, G. Fleming, Helios SERC retreat, Berkeley CA, 27 March 2009. (Presented by T. Moore)

"Bioinspired Solar Energy Conversion: What We Can Learn from Photosynthesis," D. Gust, T. A. Moore, A. L. Moore, Energy for the 21st Century Symposium, University of Rochester, Rochester, NY, April, 2009 (Presented by D. Gust).

"Biological, Hybrid, & Bio-Inspired Systems for Efficient Energy Conversion," A. L. Moore, D. Gust, T. A. Moore, 2nd Annual ANSER Solar Energy Symposium Northwestern University, 5-6 May 2009. (Presented by T. Moore)

"Photoinduced Electron Transfer and Its Regulation in Synthetic Molecular Systems," A. L. Moore, D. Gust, T. A. Moore, 215th ECS meeting, San Francisco, May 24–29, 2009. (Presented by A. L. Moore)

"The long-term future of artificial Photosynthesis," A. L. Moore, D. Gust, T. A. Moore, Workshop sponsored by DOE Basic Energy Sciences, "What is the Efficiency of Photosynthesis?" Albuquerque, NM, May 23-24, 2009. (Presented by T. Moore)

"Porphyrin-Fullerene Electropolymers for Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, P. A. Liddell, M. Gervaldo, G. Kodis, B. Brennan, J. Bridgewater, 31st DOE Solar Photochemistry Research Meeting, Annapolis, MD, June 7 - 10, 2009.

"Bioenergy I: Hydrogen," A. L. Moore, D. Gust, T. A. Moore, Gordon Research Conference on Photosynthesis, Bryant University, Smithfield, RI, 28 June – 3 July, 2009. (Introductory lecture to session on biohydrogen presented by T. Moore)

"Artificial Photosynthetic Constructs for Fuel Production," A. L. Moore, D. Gust, T. A. Moore, Gordon Research Conference on Photosynthesis, Bryant University Smithfield, RI, June 28-July 3, 2009. (Presented by A. L. Moore)

"Omega Lecture: Intelligent design of light energy conversion systems," T. A. Moore, A. L. Moore, D. Gust, International Conference on Tetrapyrrole Photoreceptors of Photosynthetic Organisms (ICTPPO 2009) Asilomar Conference Center, Pacific Grove, CA, 26-31 July 2009. (Presented by T. Moore)

"Photochromic Control of Photochemical Processes: From Photosynthesis to Molecule-Based Signal Transduction," D. Gust, T. A. Moore, A. L. Moore, Photochemistry Gordon Research Conference, Smithfield, RI, July 5 - 10, 2009. (Presented by D. Gust)

"Combining Biology with Technology for the Sustainable Production and Use of Fuels," D. Gust, A. L. Moore, T. A. Moore, Federation of European Biochemical Societies (FEBS 2009), Prague, Czech Republic, 5 July 2009. (Presented by T. Moore)

"Synthetic Photosynthesis," T. A. Moore, A. L. Moore, D. Gust, Synthetic Biology Workshop, Danish-American collaboration on Synthetic Biology, Berkeley, CA, 23-25 July 2009. (Presented by T. Moore)

"Biology and Technology Combine to Meet Human Energy Needs," T. A. Moore, A. L. Moore and D. Gust, 42nd IUPAC Congress, Glasgow, UK, 2-7 August 2009. (Keynote address in symposia Energy and Environment presented by T. Moore)

"Bioinspired Energy Conversion Schemes," A. L. More, T. A. Moore, D. Gust, G. F. Moore, M. Hambourger, W. J. Youngblood and T. E. Mallouk, 42nd IUPAC Congress, Glasgow, UK, 2-7 August 2009. (Presented by A. Moore)

"Mimicking Control and Energy Converting Functions of Photosynthesis," T. A. Moore, A. L. Moore, D. Gust, S. Straight and Y. Terazono, 238th ACS National Meeting, Washington, DC, 16-20 August 2009. (Presented by T. Moore)

"Design of a Photoelectrochemical Cell for Hydrogen Production," A. L. Moore, T. A. Moore, D. Gust, G. F. Moore, M. Hambourger, 13th Congress of the European Society for Photobiology, Wroclaw, Poland, 5-10 September 2009. (Presented by A. Moore)

"Bio-Inspired Solar Fuel Production," D. Gust, T. A. Moore, A. L. Moore, DOE ARPA-E Workshop on Novel Approaches to Direct Solar Fuels, Arlington, VA, October, 2009. (Presented by D. Gust)

"Balancing Earth's Energy Budget - Pay Now or Pay Later. A lecture about energy, finite resources and near-infinite technology," T. A. Moore, A. L. Moore, D. Gust, Energy and Climate Change Conference, Universidad Austral de Chile, Valdivia, Chile, 27 November 2009. (Presented by T. Moore)

"Esquemas de Conversion de Energia Inspiradas en la Fotosintesis," T. A. Moore, A. L. Moore, D. Gust, Energy and Climate Change Conference, Universidad Austral de Chile, Valdivia, Chile, 27 November 2009. (Presented by A. Moore)

"Porphyrin-Fullerene Dyad Electropolymers," D. Gust, P. A. Liddell, B. Brennan, J. Bridgewater, M. Gervaldo, G. Kodis, C. R. Johnson, A. L. Moore, T. A. Moore, Polymat 2009, Huatulco, Mexico, November, 2009. (presented by D. Gust).

"Artificial Photosynthesis – from Light Absorption to Solar Fuels," D. Gust, T. A. Moore, A. L. Moore, 1st International Symposium of Emergence of Highly Elaborated π-Space and Its Function," Osaka, Japan, December, 2009. (Presented by D. Gust).

"Design of Photoelectrochemical Cells for the Splitting of Water to Hydrogen and Oxygen," G. F. Moore, M. Hambourger, S. Pillai, J. Bergkamp, J. Tomlin, B. Sherman, E. Mariño-Ochoa, M. Videa, D. Gust, T. A. Moore and A. L. Moore, I-APS 20th Winter Conference, St. Pete Beach, Florida, 2-5 January 2010. (Presented by A. L. Moore)

"Controlling Light with Light," D. Gust, A. L. Moore, T. A. Moore, Inter-American Photochemistry Society, 20th Winter Conference, St. Pete Beach, FL, January, 2010 (Presented by D. Gust).

"Artificial Photosynthesis," T. A. Moore, A. L. Moore, and D. Gust, The Artificial Leaf Workshop, Lorentz Center, Leiden, The Netherlands, 1-5 February 2010. (Presented by T. Moore)

"Combining Biology with Technology for Efficient Energy Conversion," T. A. Moore, A. L. Moore, and D. Gust, 54th Annual Meeting, Biophysical Society, San Francisco, CA, 20-24 February 2010. (Presented by T. Moore)

"High and Low Potential Sensitizers for Splitting Water to Hydrogen and Oxygen Using Solar Energy," B. Sherman, S. Pilla, J. Bergkamp, D. Patterson, G. Kodis, A. L. Moore, D. Gust, and T. A. Moore, 217th Meeting of the Electrochemical Society, Vancouver, Canada, 25 March 2010. (Presented by B. Sherman)

"Combining Technology with Biology for Efficient Energy Production and Use," T. A. Moore, A. L. Moore, and D. Gust, 2010 OCU International Symposium on the Foundation of Environmental Research, The Integrated Advanced Research Institute of Osaka City University, Awaji Yumebutai International Conference Center, 8-9 March, 2010. (Presented by T. Moore)

"Design of Photoelectrochemical Cells for Water Splitting and Fuel Production," G. F. Moore, M. Hambourger, B. Sherman, S. Pillai, J. Bergkamp, D. Patterson, J. Tomlin, E. Mariño-Ochoa, M. Videa, D. Gust, T. A. Moore and A. L. Moore, 2010 OCU International Symposium on the Foundation of Environmental Research, The Integrated Advanced Research Institute of Osaka City University, Awaji Yumebutai International Conference Center, 8-9 March, 2010. (Presented by A. L. Moore)

"Bio-Inspired Catalysts for Efficient Energy Conversions," T. A. Moore, A. L. Moore, and D. Gust, Catalysis for Sustainability. Photocatalysis for Fuel Synthesis: Molecular

and Hybrid Systems, ACS National Meeting and Exposition, San Francisco, CA, 21-25 March 2010. (Presented by T. Moore)

"Artificial Photosynthesis – from Light Absorption to Solar Fuels," D. Gust, T. A. Moore and Ana L. Moore, Seventh U.S.-Korea Forum on Nanotechnology: Nanomaterials and Systems for Nano Energy, Seoul, Korea, April, 2010 (Presented by D. Gust).

"Combining Technology with Biology for Efficient Energy Conversion," T. A. Moore, A. L. Moore, and D. Gust, CASE-Helios Workshop, Co-catalysis in photochemical fuel production, Technical University of Denmark, Lyngby Copenhagen, Denmark, 17-18 May 2010. (Presented by T. Moore)

"Artificial Photosynthesis – Combining Technology with biology for Efficient Energy Conversion," Workshop for PhD Students in Nanoscience, T. Moore, Technical University of Denmark, Copenhagen, Denmark, May 19, 2010.

"Carotenoid Photoprotection in Artificial Photosynthetic Antennas," S. Pillai, M. K. Kloz, G. Kodis, J. T. M. Kennis, R. van Grondelle, D. Gust, T. A. Moore and A. L. Moore, 32nd DOE Solar Photochemistry Research Meeting, Annapolis, MD, 6-9 June 2010. (Poster Presented by A. Moore)

"Porphyrin-Fullerene Polymers for Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, P. A. Liddell, G. Kodis, B. Brennan and J. Bridgewater, 32nd DOE Solar Photochemistry Research Meeting, Annapolis, MD, 6-9 June 2010. (Poster presented by D. Gust)

"Small-Molecule Sensing Using Porphyirn Monolayers and Polymers," D. Gust, B. R. Takulapalli, G. M. Laws, P. A. Liddell, J. Andréasson, T. J. Thornton, B. Brennan, J. Bridgewater, M. Gervaldo, T. A. Moore, A. L. Moore, 6th International Conference on Porphyrins and Phthalocyanines, Santa Ana, New Mexico, July, 2010. (Presented by D. Gust)

"Artificial Photosynthesis-Combining Technology with Biology for Efficient Energy Conversion," T. A. Moore, A. L. Moore and D. Gust, 6th International Conference on Porphyrins and Phthalocyanines ICPP-6, Santa Ana, NM, 4-9 July 2010. (Presented by T. Moore)

"Design of Photoelectrochemical Cells for Water Splitting and Fuel Production," G. F. Moore, M. Hambourger, B. Sherman, S. Pillai, J. Bergkamp, D. Patterson, J. Tomlin, E. Mariño-Ochoa, M. Videa, D. Gust, T. A. Moore and A. L. Moore, 6th International Conference on Porphyrins and Phthalocyanines ICPP-6, Santa Ana, NM, 4-9 July 2010. (Presented by A. Moore)

"Artificial Photosynthesis – Combining Technology with Biology for Efficient Energy Conversion I," T. A. Moore, A. L. Moore and D. Gust, The Science of Biofuels and Energy Harvesting Materials, Rise to the Challenge, Sandia National Laboratory, Albuquerque, NM, 12 July 2010. (Presented by T. Moore)

"Artificial Photosynthesis – Combining Technology with Biology for Efficient Energy Conversion II," T. A. Moore, A. L. Moore and D. Gust, The Science of Biofuels and Energy Harvesting Materials, Rise to the Challenge, Sandia National Laboratory, Albuquerque, NM, 12 July 2010. (Presented by A. Moore)

"Controlling Light with Light: From Photosynthesis to Molecule-Based Signal Transduction," D. Gust, T. A. Moore, A. L. Moore, XXIII IUPAC Symposium on Photochemistry, Ferrara, Italy, July, 2010. (Presented by D. Gust)

"Bio-Inspired Approaches to Solar Hydrogen Production," D. Gust, T. A. Moore, A. L. Moore, Artificial Photosynthesis Workshop, Sogang University, Seoul, Korea, July, 2010. (Presented by D. Gust)

"Bio-Inspired Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, 18th International Conference on Photoconversion and Storage of Solar Energy," Seoul, Korea, July, 2010. (Presented by D. Gust)

"Bio-Inspired Approaches to Solar Hydrogen Production," D. Gust, T. A. Moore, A. L. Moore, Solar Fuels Symposium, Pohang University, Pohang, Korea, July, 2010. (Presented by D. Gust)

"Artificial Photosynthesis – Combining Technology with Biology for Efficient Energy Conversion I," T. A. Moore, A. L. Moore and D. Gust, Radicals in the Rockies, Telluride Science Research Center, Telluride, CO, 18 – 23 July 2010. (Presented by T. Moore)

"Artificial Photosynthesis – Combining Technology with Biology for Efficient Energy Conversion II," T. A. Moore, A. L. Moore and D. Gust, Radicals in the Rockies, Telluride Science Research Center, Telluride, CO, 18 – 23 July 2010. (Presented by A. Moore)

"Artificial Photosynthesis – Combining Technology with Biology for Efficient Energy Conversion," T. A. Moore, A. L. Moore and D. Gust, Cordon Research Conference on Electron Donor-Acceptor Interactions, Salve Regina, Newport, RI, 8-13 August 2010. (Presented by A. Moore)

"Artificial Photosynthetic Antennas: Light Absorption and Control Mechanisms," A. L. Moore, D. Gust and T. A. Moore, 15th International Congress of Photosynthesis (PS2010), Photosynthetic light-harvesting Satellite Workshop, Nankai University, Tianjing, China, 18-21 August 2010. (Presented by A. Moore)

"Solar Energy Conversion in Molecular Photoelectrochemical cells," T. A. Moore, A. L. Moore and D. Gust, 15th International Congress of Photosynthesis (PS2010), Photosynthesis Research for Food, Fuel and the Future, Beijing, China, 22-27 August. (Presented by T. Moore)

"Imagine Photosynthesis Where Human Ingenuity Supersedes Evolution," T. A. Moore, D. Gust and A. L. Moore, BBSRC/NSF Photosynthesis Ideas Lab, Asilomar, CA, 14 September 2010. (Presented by T. Moore)

"Catalytic Turnover of [FeFe]-Hydrogenase Based on Single Molecule Imaging," T. A. Moore, A. L. Moore and D. Gust, Fourth International Meeting of the Institute of Metal in Biology of Grenoble, Grenoble at Villard-de-Lans, France, 25-28 September 2010. (Presented by T. Moore)

"Combining Biology and Technology for Solar Energy Conversion," A. L. Moore, D. Gust and T. A. Moore, Fourth International Meeting of the Institute of Metal in Biology of Grenoble, Grenoble at Villard-de-Lans, France, 25-28 September 2010. (Presented by A. Moore)

"Combining Biology and Technology for Solar Energy Conversion, Part 1," A. L. Moore, T. A. Moore and D. Gust, Advanced Courses of the Institute of Metals in Biology of Grenoble at Villard-de-Lans (France) 28-30 September 2010. (Presented by T. Moore)

"Combining Biology and Technology for Solar Energy Conversion, Part II," A. L. Moore, T. A. Moore and D. Gust, Advanced Courses of the Institute of Metals in Biology of Grenoble at Villard-de-Lans (France) 28-30 September 2010. (Presented by A. Moore)

"Design of Photoelectrochemical Cells for Water Splitting and Fuel Production," A. L. Moore, D. Gust and T. A. Moore, X ELAFOT, La Serena, Chile, 10-14 October 2010. (Presented by A. Moore)

"Solar Fuels via Artificial Photosynthesis," D. Gust, T. A. Moore, A. L. Moore, General Electric Solar Fuels Symposium 2010, Niskayuna, NY, November, 2010. (Presented by D. Gust)

"Artificial Photosynthesis - Human Ingenuity Supersedes Evolution," A. L. Moore, D. Gust and T. A. Moore, State of Pará Foundation for Research Development, International Meeting on Science and Technology, Belém do Pará, Brazil, 16 December 2010. (Presented by T. Moore)

"Artificial Photosynthesis," A. L. Moore, D. Gust and T. A. Moore, State of Pafrá Foundation for Research Development, International Meeting on Science and Technology, Belém do Pará, Brazil, 16 December 2010. (Presented by A. Moore)

"Combining Technology with Biology for Efficient Energy Production and Use," A. L. Moore, D. Gust and T. A. Moore, Zing Conference on Solar Fuels and Photochemistry, Puerto Morelos, Mexico, 1 – 4 December 2010. (Presented by T. Moore)

"Design of Photoelectrochemical Cells for Water Splitting and Fuel Production," A. L. Moore, D. Gust and T. A. Moore, Zing Conference on Solar Fuels and Photochemistry, Puerto Morelos, Mexico, 1 – 4 December 2010. (Presented by A. Moore)

"Imagine Photosynthesis Where Human Ingenuity Supersedes Evolution," T. A. Moore, A. L. Moore, and D. Gust, The First Annual Research Corporation for Science Advancement Scialog Conference, Biosphere 2, Oracle, AZ, 12-15 October 2010. (Presented by T. Moore)

Renewable Energy: A Panel Discussion, ASU President's Community Enrichment Programs, Desert Botanical Garden, Phoenix, AZ 30 March 2010. (short presentation by T. Moore on renewable energy research at ASU followed by a panel discussion)

"Solar Power Plants: What Photosynthesis Can Teach Us About Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, Frontiers in Artificial Photosynthesis: From Solar Fuels to Photodynamics, Ben-Gurion University of the Negev, Be'er Sheva, Israel, March, 2011. (Presented by D. Gust)

"Bio-Inspired Solar Energy Conversion," D. Gust, T. A. Moore, A. L. Moore, Solar Power as an Alternative Energy Source, 241st ACS National Meeting, Anaheim, CA, March, 2011. (Presented by D. Gust)

"Engineered and Artificial Photosynthesis - *human ingenuity supersedes evolution,"* T. A. Moore, A. L. Moore and D. Gust, American Physical Society March Meeting, Dallas, TX, 21 March 2011. (Presented by T. Moore)

"Optimizing Light Absorption and Controlling Energy Flow in Artificial and Natural Photosynthesis - *human ingenuity supersedes evolution,"* T. A. Moore, A. L. Moore and D. Gust, The 3rd International Conference of the OCU Advanced Research Institute for Natural Science and Technology (OCARINA), Osaka, Japan, 8 March 2011. (Presented by T. Moore)

"Design of Photoelectrochemical Cells for the Splitting of Water and Production of Fuel," T. A. Moore, A. L. Moore and D. Gust, The 3rd International Conference of the OCU Advanced Research Institute for Natural Science and Technology (OCARINA), Osaka, Japan, 8 March 2011. (Presented by A. Moore)

"Optimizing Light Absorption and Controlling Energy Flow in Artificial and Natural Photosynthesis," T. A. Moore, A. L. Moore and D. Gust, Light Harvesting Processes 2011, Kloster Banz, Bad Staffelstein, Germany, 10 April 2011. (Presented by T. Moore)

"Design of Photoelectrochemical Cells for the Splitting of Water and Production of Fuel," T. A. Moore, A. L. Moore and D. Gust, ImagineNano, Bilbao, Spain, 13 April 2011. (Presented by A. Moore)

"Imagine* photosynthesis where human ingenuity supersedes evolution," (*John Lennon), T. A. Moore, A. L. Moore and D. Gust, Gordon Research Conference on Bioorganic Chemistry, Proctor Academy, Andover, NH, 12 – 17 June 2011. (Presented by T. Moore)

"Comparing Photosynthetic and Photovoltaic Efficiencies and Recognizing the Potential for Improvement," T. A. Moore, A. L. Moore and D. Gust, Inter-American Photochemical Society Pre-conference Workshop, Mendoza, Argentina, 16-17 May 2011. (Presented by T. Moore)

"A two-junction artificial leaf: Optimizing artificial antennas and reaction centers for solar-driven water to hydrogen redox processes," Ana L. Moore, Thomas A. Moore, Devens Gust, Antaeres' Antoniuk-Pablant, Jesse Bergkamp, Gerdenis Kodis, Matthieu Koepf, Jackson Megiatto, Dalvin Méndez, Smitha Pillai, Benjamin Sherman, Yuichi Terazono, DOE EFRC Summit, Washington, D. C., 24-27 May 2011. (Presented by T. Moore and A. Moore)

"Bidirectional energy transfer and excitonic coupling in carotenoid tetrapyrrole dyads," Smitha Pillai, Miroslav K. Kloz, Gerdenis Kodis, John T. M. Kennis, Rienk van Grondelle, Peter Jomo Walla, Pen-Nan Liao, Devens Gust, Thomas A. Moore, Ana L. Moore, DOE Solar Photochemistry Contractors' Meeting, Wintergreen, VA, 5-8 June 2011. Poster presented by T. Moore, A. Moore and D. Gust)

"Photosynthesis in the Anthropocene," T. A. Moore, A. L. Moore, and D. Gust, Photosynthetic Antenna Research Center (PARC) all-hands meeting, St Louis, MO, 20-21 June 2011. (Presented by T. Moore)

"Comparing photosynthesis with photovoltaics to set the stage for sustainable energy production and use through bio-inspired technology," T. A. Moore, A. L. Moore, and D. Gust, Arizona Nanotechnology Cluster, Tempe, AZ, 30 June 2011. (Presented by T. Moore)

"Using Ingenuity to Improve Photosynthesis - Nature Left us Plenty of Room," T. A. Moore, A. L. Moore, and D. Gust, Challenges in Renewable Energy (ISACS4), Boston, MA, 5-8 July 2011. (Presented by T. Moore)

"Comparing photovoltaics with photosynthesis to define some challenges for photochemists," Thomas A. Moore, Ana L. Moore and Devens Gust, Photochemistry Gordon-Kenan Research Seminar, Stonehill College, Easton, MA. 9-10 July 2011. (Presented by T. Moore)

"Imagine* photosynthesis by rational design rather than evolution," (*John Lennon), Thomas A. Moore, Ana L. Moore and Devens Gust, Photochemistry Gordon Research Conference, Stonehill College, Easton, MA July 10-15, 2011. (Presented by T. Moore)

"Synthetic Mimics of Photosynthetic Photoregulatory Mechanisms," D. Gust, T. A. Moore and A. L. Moore, Photochemistry Gordon Research Conference, Easton, MA, July, 2011. (Presented by D. Gust)

"Bio-Inspired Solar Fuel Production," D. Gust, T. A. Moore and A. L. Moore,

International Symposium on Advances in Photovoltaics and Photocatalysis, Technische Unversität München, Munich, Germany, July, 2011. (Presented by D. Gust)

“Bio-Inspired Approaches to Solar Hydrogen Production,” D. Gust, T. A. Moore and A. L. Moore, SPIE Optics + Photonics, San Diego, CA, August, 2011. (Presented by D. Gust)

"Using ingenuity to improve photosynthesis - nature left us plenty of room, ” Thomas A. Moore, Ana L. Moore and Devens Gust, 43rd IUPAC World Chemistry Congress, San Juan, Puerto Rico, 30 July – 5 August 2011. (Presented by T. Moore)

“Artificial Photosynthesis – Part I,” T. A. Moore, A. L. Moore and D. Gust, Solar Solutions to Energy and Environmental Problems, Telluride Science Research Center, Telluride, CO, 7-12 August 2011. (Presented by T. Moore)

“Artificial Photosynthesis – Part II,” T. A. Moore, A. L. Moore and D. Gust, Solar Solutions to Energy and Environmental Problems, Telluride Science Research Center, Telluride, CO, 7-12 August 2011. (Presented by A. Moore)

“Imagining catalysis and photosynthesis where human ingenuity supersedes evolution,” T. A. Moore, A. L. Moore and D. Gust, Topsøe Catalysis Forum, catalysis and future energy, Munkerupgaard, Denmark, 25-26 August 2011. (Presented by T. Moore)

“Design of photoelectrochemical cells for the splitting of water and production of fuel,” Ana L. Moore, Jackson D. Meggiato, Jesse Bergkamp, Benjamin D Sherman, Smitha Pillai, Dalvin Mendez, Thomas A Moore and Devens Gust, 242nd ACS National Meeting and Exposition, Denver CO, 30 August 2011. (Presented by A. Moore)

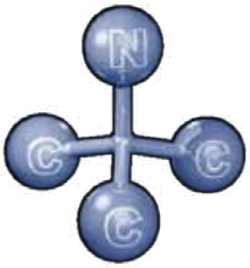
“Realizing Artificial Photosynthesis,” D. Gust, T. A. Moore, A. L. Moore, Faraday Discussion 155: Artificial Photosynthesis, Edinburgh, Scotland, September, 2011. (Presented by D. Gust)

“Imagine photosynthesis by rational design rather than evolution,” Thomas A. Moore, Ana L. Moore and Devens Gust, Delft-Amsterdam BioSolar Cells Project Symposium, Amsterdam, The Netherlands, 7 October 2011. (Presented by T. Moore)

“Bio-Inspired Solar Energy Conversion,” D. Gust, T. A. Moore, A. L. Moore, Département de Chimie Moléculaire, Université Joseph Fourier, Grenoble, France, October, 2011. (Presented by D. Gust)

“Bio-inspired science and technology for sustainable solar energy conversion,” Thomas A Moore, Ana L Moore, and Devens Gust, At the Interface of Natural and Artificial Photosynthesis Symposium, Rensselaer Polytechnic Institute, Troy, NY, 4 - 5 November 2011. (Presented by T. Moore)

“The Photoanode of Photoelectrochemical Cells for the Splitting of Water and Production



of Fuel," Thomas A Moore, Ana L Moore, and Devens Gust, At the Interface of Natural and Artificial Photosynthesis Symposium, Rensselaer Polytechnic Institute, Troy, NY, 4, 5 November 2011. (Presented by A. Moore)

"Bio-inspired Science and Technology for Sustainable Solar Energy Conversion,"
T. A. Moore, D. Gust, and A. L. Moore, 21st Western Photosynthesis Conference, Asilomar, CA, 7 January 2012. (Presented by T. Moore)

"Bio-inspired Science and Technology for Sustainable Solar Energy Conversion,"
T. A. Moore, D. Gust, and A. L. Moore, XIIIth Netherlands' Catalysis and Chemistry Conference, Noordwijkerhout, Netherlands, 5 March 2012. (Presented by T. Moore)

"Imagine* Photosynthesis Where Human Ingenuity Supersedes Evolution (*John Lennon)," T. A. Moore, A. L. Moore, and D. Gust, PAC Symposium 2012, "Breaking Boundaries," Leiden, Netherlands, 8 March 2012. (Presented by T. Moore)

"Catalytic turnover of [Fe-Fe] hydrogenase based on single molecule imaging," Christopher Madden, Michael D. Vaughn, Ismael Díez-Pérez, Katherine A. Brown, Paul W. King, Devens Gust, Ana L. Moore, and Thomas A. Moore, American Chemical Society March Meeting, San Diego, CA, 27 March 2012. (Presented by C. Madden)

"Bio-Inspired Solar Energy Conversion," Devens Gust, Thomas A. Moore, and Ana L. Moore, 2012 Annual Meeting of the Japanese Chemical Society, Tokyo, Japan, March, 2012. (Presented by D. Gust)

"Imagine* Photosynthesis Where Human Ingenuity Supersedes Evolution (*John Lennon)," T. A. Moore, A. L. Moore, and D. Gust, Materials Research Society Spring Meeting, San Francisco, CA, 11 April 2012. (Presented by T. Moore)

"The Photoanode of Photoelectrochemical Cells for the Splitting of Water and Production of Fuel," Devens Gust, Thomas A. Moore and Ana L. Moore, Nano-Bio Interfaces: From Materials Design to Complex Systems, APS/CNM/EMC Users Meeting, Argonne National Laboratory, Lemont, IL, May, 2012. (Presented by A. Moore)

"Porphyrin Polymers for Solar Energy Harvesting," Paul A. Liddell, Gerdenis Kodis, Michael Kenney, Robert A. Schmitz, Bradley J. Brennan, Devens Gust, Thomas A. Moore, Ana L. Moore, DOE 34th Solar Photochemistry Program Research Meeting, Annapolis, MD, 3-7 June 2012. (Poster presented by D. Gust)

"High and Low Potential Artificial Photosystems for the Photoredox of Water to Hydrogen and Oxygen," Devens Gust, Thomas A. Moore, Ana L. Moore, 16th Annual ACS Green Chemistry & Engineering Conference, Washington DC, June, 2012. (Presented by A. Moore)

"Making and Breaking Chemical Bonds with Light," Devens Gust, Graeme Copley, Jason Gillmore, Jeff Crisman, Natia Frank, Thomas A. Moore and Ana L. Moore, Breaking and Making Bonds with Light, Telluride Science Research Center, Telluride, CO, July, 2012. (Presented by D. Gust)

"Synthesis of meso-ethoxycarbonylporphyrins and their derivatives," Yuichi Terazono, Emily North, Thomas A. Moore, Ana L. Moore and Devens Gust," Conference on Porphyrins and Phthalocyanines, Cheju, Korea, July, 2012. (Presented by Y. Terazono).

"Combining artificial photosynthesis, biology and technology for efficient energy conversion," Thomas A. Moore, Devens Gust and Ana L. Moore, Gordon Research Conference on Photosynthesis, Davidson, NC, 8-13 July 2012. (Presented by T. Moore)

"Artificial Photosynthesis," Devens Gust, Thomas A. Moore, Ana L. Moore, Photosynthesis Gordon Research Conference, Davidson College, Davidson, NC, July, 2012. (Presented by A. Moore, session chair)

"Bio-Inspired Design of a Solar Water Splitting System," Devens Gust, Thomas A. Moore, Ana L. Moore and Thomas E. Mallouk, 2012 American Chemical Society Fall Meeting, Philadelphia, PA, August 2012. (Presented by D. Gust)

"Bio-Inspired Solar Fuel Production," Devens Gust, Thomas A. Moore, Ana L. Moore, International Conference on Photochemical Conversion and Storage of Solar Energy," Caltech, Pasadena, CA, August, 2012 (Presented by D. Gust)

"Photoelectrochemical Cells for the Splitting of Water and Production of Fuel," , Devens Gust, Thomas A. Moore and Ana L. Moore, 244th American Chemical Society National Meeting Philadelphia, PA, August, 2012. (Presented by A. Moore)

"Bio-inspired EDA systems (there's plenty of room in biology)*," Thomas A Moore, Devens Gust and Ana L. Moore, Gordon Research Conference on Electron Donor Acceptor Interactions, Salve Regina University, Newport, RI, 5 – 10 August 2012
*Apologies to Feynman. (Presented by T. Moore)

"Artificial photosynthesis combines biology with technology for sustainable energy transformation," Thomas A Moore, Devens Gust and Ana L. Moore, Nobel Symposium number 153 Nanoscale Energy Converters, Örenäs Castle, Sweden, 12 – 16 August 2012. (Presented by T. Moore)

"Analog and Digital Control of Molecular Function by Photochromes," Devens Gust, Graeme Copley, Jason Gillmore, Jeff Crisman, Natia Frank, Thomas A. Moore, Ana L. Moore, EuCheMS, Prague, August, 2012. (Presented by D. Gust)

"The challenge of solar energy production from the context of the biosphere: Does Earth have an abundance of solar energy?" Thomas A Moore, Ana L. Moore and Devens Gust, International Forum on Energy and Revision of Public Policies for Sustainable

Development, Efficiency and Energy Transition, Universidad Nacional Autónoma de México, México City, México, 27 September 2012. (Presented by T. Moore)

"The challenge of solar energy production from the context of the biosphere: Does Earth have an abundance of solar energy?" Thomas A. Moore, Ana L. Moore, and Devens Gust, First EuroSolarFuels Meeting, Buchanan Arms, Drymen, Glasgow, Scotland, 29-31 October 2012. (Presented by T. Moore)

"Artificial Photosynthesis: Pursuing Ciamician's Dream," D. Gust, T. A. Moore and A. L. Moore, The Photochemistry of the Future, 100 Years Later, University of Bologna, Bologna, IT, October, 2012. (Presented by D. Gust)

"Artificial Photosynthetic Constructs for the Production of Fuel," Devens Gust, Thomas A. Moore, Ana L. Moore, 2012 Scialog Conference, Research Corporation, Biosphere 2, Oracle, AZ, October, 2012. (Presented by A. Moore)

"Photoelectrochemical Cells for the Splitting of Water," Devens Gust, Thomas A. Moore, Ana L. Moore, XI Encuentro Latinoamericano de Fotoquímica y Fotobiología (ELAFOT XI), Córdoba, Argentina, October, 2012. (Presented by A. Moore)

"Making Fuels by Artificial Photosynthesis," D. Gust, T. A. Moore and A. L. Moore, Carbon Dioxide Workshop, Princeton, NJ, November, 2012. (Presented by D. Gust)

"The challenge of solar energy production from the context of the biosphere: Does Earth have an abundance of solar energy?" Thomas A Moore, Ana L. Moore and Devens Gust, Harvesting Light Symposium, Amsterdam, the Netherlands, 6 - 7 December 2012. (Presented by T. Moore)

"Bio-Inspired Solar Energy Conversion," Devens Gust, Thomas A. Moore and Ana L. Moore, PARC, Washington University, Saint Louis,
MO, December, 2012. (Presented by D. Gust)

"Organic-dye based approach to photoelectrochemical water splitting," Benjamin D. Sherman, Jesse J. Bergkamp, Smitha Pillai, Gerdenis Kodis, Dalvin Mendez, Devens Gust, Ana L. Moore, Thomas A. Moore, 21st Western Photosynthesis Conference, Asilomar Conference Grounds, Pacific Grove, CA, January 7th, 2012. (Presented by B. Sherman)

"Balancing spectroscopic and redox properties in a dye-sensitized tandem junction cell for the photolysis of water," Benjamin D. Sherman, Jesse J. Bergkamp, Smitha Pillai, Yixin Zhao, Gerdenis Kodis, Jackson Megiatto, Dalvin Mendez, Thomas E. Mallouk, Devens Gust, Ana L. Moore, Thomas A. Moore. Gordon Research Seminar on Photosynthesis, Biofuels, and Artificial Photosynthesis, Davidson College, Davidson, NC, July 7th, 2012. (Presented by B. Sherman)

"Design and synthesis of dyes capable of driving the oxidation of water and reduction of protons to form hydrogen gas" and "Information about the NSF-Graduate Research Fellowship Program," Dalvin D. Méndez-Hernández, Jackson D. Megiatto, Pilarisetty Tarakeshwar, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Vladimiro Mujica, and Ana L. Moore, Invited talk at Universidad Metropolitana (UMET), San Juan, Puerto Rico, December, 2012. (Presented by D. Méndez)

"The challenge of solar energy production from the context of the biosphere: Does Earth have an abundance of solar energy?" Thomas A Moore, Ana L. Moore and Devens Gust, 22st Western Photosynthesis Conference, Asilomar Conference Grounds, Pacific Grove, CA, January 7th, 2013 (intro lecture by session chair T. Moore)

"Carotenoids in artificial photosynthesis and energy transduction," A. L. Moore, T. A. Moore and D. Gust, Gordon Research Conference on Carotenoids, Ventura, CA 6-11 January 2013 (Presented by A. Moore)

"Does Earth have an abundance of solar energy? Artificial photosynthesis addresses the challenge of solar energy production from the context of the biosphere," Thomas A. Moore, Ana L. Moore, Devens Gust, Umeå Renewable Energy Meeting, Umeå, Sweden, 25-27 February 2013 (Presented by T. Moore)

"Design of bio-inspired photoelectrochemical cells for water oxidation and reduction," Thomas A. Moore, Ana L. Moore, Devens Gust, 2013 Materials Resesrch Societ Spring Meeting, San Francisco, CA, 1-5 April 2013 (Presented by T. Moore)

"Does Earth have an abundance of solar energy? Artificial photosynthesis and the challenge of solar energy production from the context of the biosphere," T. A. Moore, A. L. Moore and Thomas A. Moore, Wissenschaftskolleg zu Berlin, On Coherent Quantum Effects in Biology, Berlin, Germany, 2-3 May 2013 (Presented by T Moore)

"Reengineering photosynthesis to better meet human needs," T. A. Moore, A. L. Moore and D. Gust, Workshop on Redesigning Photosynthesis – Identifying Opportunities and Novel Ideas, Banbury Center, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY May 13-16, 2013 (Presented by T. Moore)

"Bio-Inspired Design of a Solar Water Splitting System," Devens Gust, Thomas A. Moore and Ana L. Moore, 2013 KCAP Conference on Artificial Photosynthesis, Sogang University, Seoul, May, 2013. (Presented by D. Gust)

"Carotenoids and super photoprotection in oxygenic photosynthetic organisms," T. A. Moore, Ana L. Moore, D. Gust and Katie WongCarter, Understanding supramolecular architectures in photosynthesis by space and time resolved spectroscopy, Annual Meeting, Human Frontiers Scientific Program Project, Arizona State University, Tempe, AZ, 24 May 2013 (Presented by T. Moore)

"Artificial photosynthetic molecules for solar energy collection and protection," T. A. Moore, Ana L. Moore, D. Gust and Katie WongCarter, Understanding supramolecular architectures in photosynthesis by space and time resolved spectroscopy, Annual Meeting, Human Frontiers Scientific Program Project, Arizona State University, Tempe, AZ, 24 May 2013 (Presented by Katie WongCarter)

"Carotenoids in artificial photosynthesis and energy transduction," T. A. Moore, Ana L. Moore, D. Gust and Katie WongCarter, Understanding supramolecular architectures in photosynthesis by space and time resolved spectroscopy, Annual Meeting, Human Frontiers Scientific Program Project, Arizona State University, Tempe, AZ, 24 May 2013 (Presented by A. Moore)

"Bio-Inspired Photoelectrochemical Tandem Cells," Dalvin D. Méndez-Hernández, Vladimiro Mujica, Thomas A. Moore, Devens Gust and Ana L. Moore, Department of Energy, Energy Frontier Research Centers, Principal Investigators Meeting, Washington, D.C.; July 2013. (Poster presented by D. Méndez).

"A Bio-Inspired Photoelectrochemical Cell for Water Splitting," Thomas A. Moore, Ana L. Moore and Devens Gust, The 16th International Congress on Photosynthesis Research, St. Louis, MO, USA, 11-16 August 2013 (Presented by A. Moore)

"Limiting Photochemical Damage in Artificial Photosynthesis," D. Gust, A. L. Moore, T. A. Moore, Solar Solutions to Energy and Environmental Problems, Telluride, CO, August, 2013. (Presented by D. Gust)

"Artificial Photosynthesis," D. Gust, T. A. Moore, A. L. Moore, XIV Congresso Brasileiro de Fisiologia Vegetal, Pocos de Caldas, Brasil, September, 2013. (Presented by D. Gust)

"Regulación y fotoprotección en fotosíntesis por carotenoids," Ana L. Moore, Devens Gust, Thomas A. Moore, , GRAFOB II, Ciudad de Córdoba, Argentaina, 22-25 Oct 2013 (Presented by A. Moore)

"Artificial photosynthesis and bio-inspired solar-to-fuel strategies," Thomas A. Moore, Devens Gust, Ana L. Moore, Thomas E. Mallouk, 246th ACS National Meeting & Exposition, Indianapolis, IN, 8-12 September 2013 (Presented by B. Sherman)

"A bio-inspired photoelectrochemical cells for water splitting," Ana L. Moore, Thomas A. Moore, Devens Gust, WG1-WG2 Workshop, Perspect-H_2O Supramolecular Photocatalytic Water Splitting, Autrans, France, 2-4 October 2013 (Plenary Lecture Presented by A. Moore)

"Artificial photosynthesis - helping nature regain control of the global carbon cycle," T. A. Moore, A. L. Moore and D. Gust, Lorentz Center Workshop on Responsive Matrices for Solar Fuels, Leiden, The Netherlands, 28 Oct - 1 Nov 2013 (Presented by T. Moore)

"Photoregulation by Carotenoids in Artificial Antennas." Thomas A. Moore, Devens Gust and Ana L. Moore, 35th DOE Solar Photochemistry Research Meeting, Annapolis, Maryland, 2-5 June, 2013. (Presented by A. Moore).

"Triplet State Interchromophore Interactions in Photosynthesis and Artificial Photosynthesis," T. A. Moore, A. L. Moore and D. Gust, Thirty-Fifth DOE Solar Photochemistry Research Meeting, Annapolis, Maryland, USA, 2–5 June 2013. (Presented T. Moore).

"Interchromophore Interactions in Artificial Photosynthesis," Ana L. Moore, Thomas A. Moore, Devens Gust, Thirty-Fifth DOE Solar Photochemistry Research Meeting, Annapolis, Maryland, USA, 2-5 June 2013 (Presented by D. Gust)

"Molecular Mimicry of Photosynthetic Photoprotection and Photoregulation," D. Gust, T. A. Moore, A. L. Moore, 23rd Western Regional Photosynthesis Conference, Asilomar, CA, January, 2014. (Presented by D. Gust)

"Artificial photosynthesis - helping nature (photosynthesis) regain control of the global carbon cycle," Thomas A. Moore, Devens Gust and Ana L. Moore, Biology Energy Technology Workshop, Toronto, Canada, 25-27 January 2014 (Presented by T. Moore)

"Photosynthesis for the anthropocene – combining technology with biology to optimize a limited resource," Thomas A. Moore, Devens Gust and Ana L. Moore, 247th American Chemical Society National Meeting, Dallas, TX 16-20 March 2014 (Presented by T. Moore)

"A bioinspired photoelectrochemical cells for water splitting," Ana L Moore, Devens Gust and Thomas A Moore, 247th American Chemical Society National Meeting, Dallas, TX 16-20 March 2014 (Presented by A. Moore)

"A Tandem Photoelectrochemical Cell for Water Splitting," Part 1, report on the Center for Bio-Inspired Solar Fuel Production, Devens Gust, James Allen, Petra Fromme, Giovanna Ghirlanda, Anne Jones, Yan Liu, Ana Moore, Thomas Moore, Vladimiro Mujica, Kevin Redding, Don Seo, Ryan Trovitch and Hao Yan, Thirty-Sixth DOE Solar Photochemistry Research Meeting, 1-4 June 2014, Annapolis, MD (Presented by T. Moore)

"A Tandem Photoelectrochemical Cell for Water Splitting," Part 2, report on the Center for Bio-Inspired Solar Fuel Production, Devens Gust, James Allen, Petra Fromme, Giovanna Ghirlanda, Anne Jones, Yan Liu, Ana Moore, Thomas Moore, Vladimiro Mujica, Kevin Redding, Don Seo, Ryan Trovitch and Hao Yan, Thirty-Sixth DOE Solar Photochemistry Research Meeting, 1-4 June 2014, Annapolis, MD (Presented by A. Moore)

"Bio-Inspired Solar Fuel Production," D. Gust, T. A. Moore, A. L. Moore, International Conference on Bio Energy, Torremolinos, Spain, June, 2014. (Presented by D. Gust)

"Artificial photosynthesis - helping nature (photosynthesis) regain control of the global carbon cycle," Thomas A. Moore, Ana L. Moore and Devens Gust, 17th International Symposium on Carotenoids, 29 June – 4 July, 2014, Park City, UT, USA. (Presented by T. Moore)

"Involvement of carotenoids in photosynthetic regulation and photoprotection," Ana L. Moore, Thomas A. Moore, and Devens Gust, 17th International Symposium on Carotenoids, 29 June – 4 July, 2014, Park City, UT, USA. (Presented by A. Moore)

"Artificial photosynthesis (part 1)," Thomas A. Moore, Ana L. Moore, Devens Gust, Telluride Science Research Center Summer School on Fundamental Science for Alternative Energy, 24-28 July 2014, Telluride, CO. (3 lectures presented by T. Moore)

"Artificial photosynthesis (part 2)," Ana L. Moore, Thomas A. Moore, Devens Gust, Telluride Science Research Center Summer School on Fundamental Science for Alternative Energy, 24-28 July 2014, Telluride, CO. (3 lectures presented by A. Moore)

"Mimics of the Tyr_y-His redox relay of photosystem II," Ana L. Moore, Thomas A. Moore, Devens Gust, Manuel J. Llansola-Portolés, Gerdenis Kodis, Dalvin Méndez-Hernández and John Tomlin, 248th American Chemical Society National Meeting, San Francisco, CA, 10-14 August 2014 (Presented by A. Moore)

"Artificial photosynthesis-Helping nature regain control of the global carbon cycle," Thomas A. Moore, Ana L. Moore, Devens Gust, 16th International Congress on Photobiology, Cordoba, Argentina, 7-12 September 2014 (Presented by T. Moore)

"A bio-inspired photoanode for a water splitting photoelectrochemical cell," Ana L. Moore, Thomas A. Moore, Devens Gust, 16th International Congress on Photobiology, Cordoba, Argentina, 7-12 September 2014 (Presented by A. Moore)

"Designing high efficiency photoelectrochemical (PEC) cells," Thomas A. Moore, Devens Gust and Ana L. Moore, Workshop *"Energizing Photochemistry"* Universidad National de Córdoba, Córdoba, Argentina, 7 Sept 2014 (Presented by T. Moore)

"The electrodes for tandem photoelectrochemical cells for the production of hydrogen," Ana L. Moore, Thomas A. Moore, Devens Gust, Workshop *"Energizing Photochemistry"* Universidad National de Córdoba, Córdoba, Argentina, 7 Sept 2014 (Presented by A. Moore)

"Bio-Inspired Systems for Solar Fuels," D. Gust, T. A. Moore, A. L. Moore, International Conference on Artificial Photosynthesis, Awaji Island, Japan, November, 2014. (Presented by D. Gust)

"Artificial Photosynthesis-Helping nature regain control of the global carbon cycle," Thomas A Moore, Ana L. Moore and Devens Gust, 24th Western Regional

Photosynthesis Conference, Pacific Grove, CA., 8-11 January 2015. (Presented by T. Moore)

"Light harvesting and fuel production in artificial photosynthesis" Ana L. Moore, Thomas A Moore and Devens Gust, Photosynthesis Gordon Research Conference, Bentley University Waltham, MA, June 28–July 3, 2015. (Presented by A. Moore)

"Complex photochemistry in a molecular artificial photosynthetic reaction center," Antaeres Antoniuk-Pablant, Gerdenis Kodis, Ana L. Moore, Thomas A. Moore, and Devens Gust, Thirty-Seventh DOE Solar Photochemistry P.I. Meeting, Marriott Washington Center, Gaithersburg, MD, 31 May to 3 June 2015. (Invited poster presented by D. Gust, A. Moore and T. Moore)

"Photo-injection of high potential holes into $Cu_5Ta_{11}O_{30}$ nanoparticles by porphyrin dyes" Ian Sullivan, Chelsea Brown, Manuel J. Llansola-Portoles, Miguel Gervaldo, Gerdenis Kodis, Thomas A. Moore, Devens Gust, Ana Moore, and Paul Maggard, Thirty-Seventh DOE Solar Photochemistry P.I. Meeting, Marriott Washington Center, Gaithersburg, MD, 31 May to 3 June 2015. (Invited poster presented by D. Gust, A. Moore and T. Moore)

"Mimicking Photosynthetic Photoprotection," D. Gust, T. A. Moore, A. L. Moore, G. R. Fleming, 27th International Conference on Photochemistry, Jeju, Korea, June, 2015. (Presented by D. Gust)

"Complex photochemistry in a molecular artificial photosynthetic reaction center," A. Antoniuk-Pablant, G. Kodis, A. L. Moore, T. A. Moore, D. Gust, Time- and Space-resolved Spectroscopic Investigations on Various Molecular Systems," Yonsei University, Seoul, Korea, July, 2015. (Presented by D. Gust)

"Complex photochemistry in a molecular artificial photosynthetic reaction center," A. Antoniuk-Pablant, G. Kodis, A. L. Moore, T. A. Moore, D. Gust, 2015 World Fullerene Conference, Hohhot, Mongolia, August, 2015. (Invited poster presented by René Bensasson).

"Artificial photosynthesis-helping nature regain control of the global carbon cycle," Thomas A Moore, Ana L. Moore and Devens Gust, 250th American Chemical Society National Meeting & Exposition, Boston, MA, 16–20 August 2015. (Presented by T. Moore)

"Mimics of the Tyr_y-His redox relay of photosystem II in water splitting schemes," Ana L. Moore, Thomas A Moore and Devens Gust, 250th American Chemical Society National Meeting & Exposition, Boston, MA, 16–20 August 2015. (Presented by A. Moore)

"Mimicking photosynthetic electron, energy and proton transfer," D. Gust, T. A. Moore, A. L. Moore, ACS 2015 Fall Meeting, Symposium on Molecular Biophysics, Boston, MA, August, 2015. (Presented by D. Gust)

"Artificial photosynthesis-helping nature regain control of the global carbon cycle," Thomas A Moore, Ana L. Moore and Devens Gust, International workshop on: Charge, Heat and Energy Transport in Molecular Junctions, Copenhagen, Denmark, 24–26 August 2015. (Presented by T. Moore)

"Bio-inspired schemes for solar energy conversion," Ana L. Moore, Thomas A Moore and Devens Gust, International workshop on: Charge, Heat and Energy Transport in Molecular Junctions, Copenhagen, Denmark, 24–26 August 2015. (Presented by A. Moore)

"Bio-inspired solar fuel production," D. Gust, T. A. Moore, A. L. Moore, Doppler Symposium on Solar Fuels, Cambridge, UK, September, 2015. (Presented by D. Gust)

"Light Harvesting and Fuel Production in Artificial Photosynthesis," Ana L. Moore, Thomas A Moore and Devens Gust, Lights on Chemistry Symposium, Tarragona, Spain, 1–2 October 2015. (Presented by A. Moore)

"Artificial photosynthesis-helping nature regain control of the global carbon cycle," Thomas A Moore, Ana L. Moore and Devens Gust, 4th International Workshop on Energy Conversion and Storage, CICATA-IPN, México City, México, 25-26 October 2015. (Plenary, Presented by T. Moore)

"Artificial photosynthesis," Ana L. Moore, Thomas A Moore and Devens Gust, 4th International Workshop on Energy Conversion and Storage, CICATA-IPN, México City, México, 25-26 October 2015. (Plenary, Presented by A. Moore)

"Sustainability, the global carbon cycle and solar energy," Thomas A Moore, Ana L. Moore and Devens Gust, Science for Sustainability, Inspiration for global change from the Desmond Tutu Programme, Amsterdam, The Netherlands, 26-27 November, 2015. (Presented by T. Moore)

"Helping nature regain control of the global carbon cycle," Thomas A Moore, Ana L. Moore and Devens Gust, James Flack Norris Award in Physical Organic Chemistry: Symposium in honor Juan C. Scaiano, 251th American Chemical Society National Meeting & Exposition, San Diego, CA, 13-17 March 2016. (Presented by T. Moore)

"Light harvesting and photoinduced electron transfer in artificial photosynthetic constructs," Ana L. Moore, Thomas A. Moore, Devens Gust, Marely E. Tejeda, Ann-Lucie Teillout, Sharon Hammes-Schiffer and Mioy Huynh, American Chemical Society National Meeting & Exposition, San Diego, CA, 13-17 March 2016. (Presented by A. Moore)

Artificial photosynthetic constructs that mimic the PCET process of the Tyr_z-His relay of

PSII, Ana L. Moore, Thomas A. Moore, Devens Gust, Marely E. Tejeda, Ann-Lucie Teillout, Sharon Hammes-Schiffer and Mioy Huynh, 79th Harden Conference: Oxygen Evolution and Reduction - Common Principles, Innsbruck, Austria, 16-20 April 2016. (Presented by A. Moore)

"Helping nature regain control of the global carbon cycle," Thomas A. Moore, Ana L. Moore and Devens Gust, 25th Inter-American Photochemical Society, Santiago, Chile, 24-27 May 2016. (Presented by T. Moore)

"Artificial Photosynthetic Constructs that Mimic the PCET process of the Tyr_z-His relay of PSII," Ana L. Moore, Thomas A. Moore and Devens Gust, 25th Inter-American Photochemical Society, Santiago, Chile, 24-27 May 2016. (Presented by A. Moore)

"Components of an Artificial Photosynthetic Solar Fuel System," Devens Gust, Thomas A. Moore and Ana L. Moore, 38th DOE Solar Photochemistry P. I. Meeting, Marriott Washingtonian Center Gaithersburg, Maryland June 6–9, 2016 June, 2016. (Presented by D. Gust, T. Moore and A. Moore)

"Sustainability, photosynthesis, the global carbon cycle and solar energy," Thomas A. Moore, Telluride Science Research Center Summer School on Fundamental Science for Alternative Energy, Telluride, Colorado, June 21–25, 2016. (Presented by T. Moore)

"Proton-Coupled Electron Transfer in Models Inspired by Photosynthesis," A. L. Moore, D. Gust and T. A. Moore, GRC Electron Donor-Acceptor Interactions, Salve Regina University Newport, RI, August 7–12, 2016. (Thursday night lecture presented by A. Moore)

"Helping nature regain control of the global carbon cycle," A. Moore, D. Gust, T. Moore, Dialogs on human ecology conference, Pontificia Universidad Católica de Chile, Santiago, Chile, 11 August 2016. (Video contribution by T. Moore, now up on SMS under my profile)

"Proton Coupled Electron Transfers in Artificial Photosynthetic Constructs," A. L. Moore, T. A. Moore, D. Gust, S. J. Mora, M. Villalba, A.-L. Teillout, M. Huynh and S. Hammes-Schiffer, The 26th Western Photosynthesis Conference Marconi Conference Center, Marshall, CA, January 5–8, 2017. (Presented by A. Moore)

"Helping nature regain control of the global carbon cycle," Thomas A. Moore, Ana L. Moore and Devens Gust, RISE Symposium, University of Puerto Rico at Cayey. Cayey, Puerto Rico January 28, 2017 (Presented by T. Moore)

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"Porphyrin Dyad Sensitizers for Photoelectrochemical Cells," L. de la Garza, P. A. Liddell, T. A. Moore, A. L. Moore and D. Gust 13th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, January, 2002.

"Singlet and Triplet Energy Transfer in Carotenoporphyrin-Like Dyads," X. Zarate, E. Mariño-Ochoa, P. A. Liddell, J. F. Mummert, D. Gust, A. L. Moore and T. A. Moore, 13th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, January, 2002.

"Competitive Kinetics Between Solvent-Solute Interactions and Proton Transfer During ESIPT of 2-Hydroxyphenyl-lapazole in Protic Solvents," C. E. M. Carvalho, A. S. Silva, I. M. Brinn, A. V. Pinto, M. C. F. R. Pinto, S. Lin, T. A. Moore, D. Gust and M. Maeder, 13th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, January, 2002.

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"Enzyme-Based Photoelectrochemical Cell," L. de la Garza, G. Jeong, P. A. Liddell, T. Sotomura, T. A. Moore, A. L. Moore, D. Gust, Abstracts of the 35th Great Lakes Regional Meeting of the American Chemical Society, Chicago, IL, May, 2003, #260.

"Light-Harvesting and Photoprotective Functions of Carotenoids in Compact Artificial Photosynthetic Antenna Designs," G. Kodis, C. Herrero, R. Palacios, E. Marino-Ochoa, J. T. M. Kennis, D. Gust, T. A. Moore and A. L. Moore, 15th Inter-American Photochemical Society, Tempe, AZ, 1-4 January 2004. (Presented by G. Kodis)

"Artificial Photosynthetic Reaction Centers with Porphyrins as Primary Electron Acceptors," Rodrigo E. Palacios, Gerdenis Kodis, S. L. Gould, L. de la Garza, A. Brune, D. Gust, T. A. Moore, and A. L. Moore, Encuentro Latinoamericano de Fotoquímica y Fotobiología, La Plata, Argentina, 8–12 November 2004. (Presented by Rodrigo Palacios).

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“Photonic Switching of a Long-Lived Charge Separated State in a Dihydropyrene-Porphyrin-C60 Triad,” P. A. Liddell, G. Kodis, J. Andréasson, L. de la Garza, S. Bandyopadhyay, R. H. Mitchell, T. A. Moore, A. L. Moore and D. Gust, 15th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, 1-4 January 2004. (Presented by J. Andréasson)

“Photonic Control of Photoinduced Electron Transfer in a Porphyrin-Dihydroindolizine Dyad,” Y. Terazono, G. Kodis, J. Andréasson, G. Jeong, A. Brune, T. Hartmann, H. Dürr, A. L. Moore, T. A. Moore and D. Gust, 15th Winter Conference of the Inter-American Photochemical Society, Tempe, AZ, 1-4 January 2004. (Presented by Y. Terazono)

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"Light-Harvesting and Photoprotective Functions of Carotenoids in Compact Artificial Photosynthetic Antenna Designs," G. Kodis, C. Herrero, R. Palacios, E. Marino-Ochoa, J. T. M. Kennis, D. Gust, T. A. Moore and A. L. Moore, Gordon Research Conference on Carotenoids, Ventura, CA, 4-9 January 2004. (Presented by A. Moore)

"Artificial Photosynthesis and Hydrogen Production: Strategies for Sustainable Energy Production," T. A. Moore, A. L. Moore, D. Gust, M. Hambourger and A. Brune, 13th International Congress of Photosynthesis, Montréal, 29 August – 3 September 2004. (Presented by T. Moore)

“Synthesis and Photophysics of Artificial Photosynthetic Reaction Centers with Porphyrins as Primary Electron Acceptors,” S. L. Gould, G. Kodis, R. Palacios, L. de la Garza, D. Gust, T. A. Moore and A. L. Moore, Open Workshop on Molecular Modified Electrodes for Clean Energy Conversion National Panasonic, Tokyo, Japan, 1 October 2004. (Presented by D. Gust, T. A. Moore and A. L. Moore)

"Artificial Photosynthesis and Bio-Inspired Catalysis: Paradigms for Sustainable Energy Production," M. Hambourger, A. Brune, D. Gust, A. Moore, T. Moore, Open Workshop on Molecular Modified Electrodes for Clean Energy Conversion National Panasonic, Tokyo, Japan, 1 October 2004. (Presented by D. Gust, T. A. Moore and A. L. Moore)

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"Exploring paradigms of natural photosynthesis: energy and electron transfer in artificial antenna-reaction center complexes," G. Kodis, Y. Terazono, P. A. Liddell, V. Garg, C. Herrero, R. E. Palacios, M. Hambourger, R. Berera, J. T. M. Kennis, T. A. Moore, A. L. Moore, D. Gust, 40th Western Regional Meeting of the American Chemical Society, Anaheim, CA, January, 2006. (Presented by G. Kodis)

"Photochemical Hydrogen Evolution: Bio-Hybrid Catalysis," M. Hambourger, Wes Giron, R. Mehlhorn, A. Brune, P. A. Liddell, D. Gust, A. L. Moore and T. A. Moore, Western Photosynthesis Conference, Pacific Grove, California, January, 2006. (Presented by M. Hambourger).

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"Porphyrin-based molecular switches and logic gates," D. Gust, T. A. Moore, A. L. Moore, 4th International Conference on Porphyrins and Phthalocyanines, Rome, Italy, July, 2006. (Presented by D. Gust)

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"Light-Driven Proton Pumping Across Planar Supported Lipid Bilayers," K. S. Orosz, T. W. McBee, C. Ge, L. Wang, Z. Sui, A. L. Moore, D. Gust, T. A. Moore, N. R. Armstrong, and S. S. Saavedra, 19th Rocky Mountain Regional Meeting of the American Chemical Society, Tucson, AZ, October, 2006.

"Immobilization of Fe-Fe Hydrogenase on Carbon: Electrochemical Characterization and Photoelectrochemical Hydrogen Generation," Mike Hambourger, Drazenka Svedruzic,

Miguel Gervaldo, Paul W. King, Paul A. Liddell, Devens Gust, Maria Ghirardi, Ana L. Moore, Thomas A. Moore, Gordon Research Conference on Renewable Energy: Solar Fuels, Ventura, CA., January 21-26, 2007. Poster presentation by M. Hambourger.

"[FeFe]-Hydrogenase in a Photoelectrochemical Cell," M. Hambourger, M. Gervaldo, D. Svedruzic, P. W. King, D. Gust, M, Ghirardi, A. L. Moore and T. A. Moore, The 8th International Hydrogenase Conference, Breckenridge, CO, August 5 – 10, 2007. (Presented by M. Hambourger)

"Donor Side Mimics of the Electron Transfer in PSII," Gary F. Moore, Michael Hambourger, Gerdenis Kodis, Miguel Gervaldo, Devens Gust, Thomas A. Moore and Ana L. Moore, Gordon Research Conference on Renewable Energy: Solar Fuels, Ventura, CA., January 21-26, 2007. (Poster presentation by Gary Moore)

"Charge separation and energy transfer in a caroteno–C60 dyad: photoinduced electron transfer from the carotenoid excited states," Gary F. Moore, Rudi Berera, Ivo H. M. van Stokkum, Gerdenis Kodis, Paul A. Liddell, Miguel Gervaldo, Rienk van Grondelle, John T. M. Kennis, Devens Gust, Ana L. Moore, and Thomas A. Moore, 16th Western Photosynthesis Conference, Pacific Grove, California, January, 4-7, 2007. (Presented by Gary Moore)

"Bioinspired Constructs that Mimic the Electron Transfer Between P680•+ and Tyrosine Z in Photosystem II," Gary F. Moore, Michael Hambourger, Gerdenis Kodis, Amy Keirstead, Miguel Gervaldo, Devens Gust, Ana L. Moore, and Thomas A. Moore. 17th Western Photosynthesis Conference, Pacific Grove, California. January 3-6, 2008. (Presented by Gary Moore)

"Porphyrin-Based Hole Conducting Electropolymer," M. Gervaldo, P. Liddell, J. Bridgewater, A. Keirstead, S. Lin, T. Moore, A. Moore, D. Gust, 213th ECS Meeting, Phoenix, AZ, May, 2008. (Presented by M. Gervaldo.)

"Integration of [FeFe]-Hydrogenase into a Photoelectrochemical Biofuel Cell," M. Hambourger, M. Gervaldo, D. Svedruzic, P. King, D. Gust, M. Ghirardi, A. Moore, T. Moore, 213th ECS Meeting, Phoenix, AZ, May, 2008. (Presented by M. Hambourger.)

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"Photonic Modulation of Electron Transfer with Switchable Phase Inversion," J. Frey, G. Kodis, S. Straight, A. L. Moore, T. A. Moore, D. Gust, Inter-American Photochemical Society Meeting, St. Pete Beach, FL, January, 2009.

"Proton Coupled Electron Transfer in Bioinspired Mediators," G. F. Moore, M. Hambourger, W. Michl, D. Gust, T. A. Moore, A. L. Moore, 18th Western Photosynthesis Conference, Pacific Grove, California. January 8-11, 2009 (Poster)

"Overall Water Splitting Using Visible Light in a Molecular Photoelectrochemical System," W. Youngblood, S. Hyun, A. Lee, P. Hoertz, Y. Kobayashi, T. E. Mallouk, T. A. Moore, A. L. Moore, D. Gust, 18th Western Photosynthesis Conference, Asilomar Conference Grounds, Pacific Grove, CA, 8-11 January 2009.

"Understanding the Role of TyrZ-His190 Pair in Water Oxidation," G. F. Moore, M. Hambourger, W. Michl, D. Gust, T. A. Moore, A. L. Moore, Renewable Energy: Solar Fuels Gordon Research Conference, Ventura, CA. February 1-6, 2009 (Selected oral presentation by G. Moore and poster)

"Bioinspired Mediators: Probing the Effects of Nanostructure on Redox Behavior," G. F. Moore, M. Hambourger, W. Michl, D. Gust, T. A. Moore, A. L. Moore, US-Argentina Workshop on Nanomaterials, Bariloche, Argentina, March 15-17, 2009. (Poster)

"Effects of the Protonation State on a Bioinspired Tyrosine-Histidine Redox Mediator," G. F. Moore, M. Hambourger, W. Michl, D. Gust, T. A. Moore, A. L. Moore, Gordon Research Conference on Photosynthesis, Bryant University Smithfield, RI, June 28-July 3, 2009. (Poster presented by G. F. Moore)

"Catalytic Turnover of [FeFe]-Hydrogenase Based on Single Molecule Imaging," C. Madden, M. D. Vaughn, I. Díez-Pérez, K. A. Brown, P. W. King, D. Gust, M. Ghirardi, N. J. Tao, A. L. Moore and T. A. Moore, Cordon Research Conference on Electron Donor-Acceptor Interactions, Salve Regina, Newport, RI, 8-13 August 2010. (Presented by T. Moore)

"Catalytic turnover of [FeFe]-Hydrogenase Based on Single Molecule Imaging," C. Madden, M. D. Vaughn, I. Díez-Pérez, K. A. Brown, P. W. King, D. Gust, M. Ghirardi, N. J. Tao, A. L. Moore, and T. A. Moore, 9th International Hydrogenase Conference, Uppsala, Sweden, 27 June – 2 July 2010. (Presented by C. Madden)

"Catalytic Turnover of [FeFe]-Hydrogenase Based on Single Molecule Imaging," Madden, C.; Vaughn, M. D.; Díez-Pérez, I.; Brown, K. A.; King, P. W.; Ghirardi, M. L.; Tao, N. J.; Gust, D.; Moore, A. L.; Moore, T. A., Gordon Research Conference: Renewable Energy, Solar Fuels. Ventura, CA. Jan 16-21, 2011. (Poster by C. Madden)

"Design of porphyrin-based ligands for the assembly of Mn-Ca bimetallic centers for electrocatalytic water oxidation," Matthieu Koepf, Jesse J. Berkamp, Ana L. Moore, Devens Gust and Thomas A. Moore, DOE EFRC Summit, Washington, D. C., 24-27 May 2011. (Poster Presented by M. Koepf)

"Proton-coupled electron transfer in artificial photosynthetic models for light-driven water oxidation," Jackson D. Megiatto, Jr., Benjamin D. Sherman, Antaeres Antoniuk-Pablant, Gerdenis Kodis, Ana L. Moore, Thomas A. Moore and Devens Gust, DOE EFRC Summit, Washington, D. C., 24-27 May 2011. (Poster Presented by J. Megiatto)

"Electrocatalytic activity of cobalt oxide incorporated into ATO electrodes," Teillout, A.-L.; Chauvin, J.; Volosin, A. M.; Sharma, S.; Seo, D.-K., Gust, D., Moore A. L.; and

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"Design and characterization of photosensitizers for water oxidation and hydrogen production," Dalvin D. Méndez-Hernández, Jackson D. Megiatto, Pilarisetty Tarakeshwar, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Vladimiro Mujica, and Ana L. Moore, Gordon Research Seminar on Renewable Energy: Solar Fuels, Italy, May, 2012. (Poster presented by D. Méndez)

"Design and characterization of photosensitizers for water oxidation and hydrogen production," Dalvin D. Méndez-Hernández, Jackson D. Megiatto, Pilarisetty Tarakeshwar, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Vladimiro Mujica, and Ana L. Moore, Gordon Research Conference on Renewable Energy: Solar Fuels, Lucca, Italy, 13 -18 May 2012. (Poster presented by D. Méndez)

"PCET Involving Tyrosine-Histidine Models of PSII," Jackson D. Megiatto, Dalvin D. Méndez-Hernández, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Vladimiro Mujica and Ana L. Moore, Electron Donor Acceptor Interaction, Gordon Research Conference, Salve Regina University, Newport, RI, August, 2012. (Poster presented by A. Moore)

"A DFT-aided design and experimental characterization of unsymmetrical phthalocyanines with phosphonic acid as photosensitizers for hydrogen production in solar cells," D. D. Méndez-Hernández, P. Tarakeshwar, D. Gust, T.A. Moore, A.L. Moore, and V. Mujica, Summer Talks at Santiago III: Recent Developments in Quantum Chemistry, Universidad Católica de Chile, Santiago, Chile, January, 2012. (Poster presented by D. Méndez)

"Synthesis, characterization and DFT-aided design of unsymmetrical phthalocyanines to be used as photosensitizers for hydrogen production," D. D. Méndez-Hernández, P. Tarakeshwar, D. Gust, T.A. Moore, V. Mujica and A.L. Moore, MGE@MSA Conference, Arizona State University, Arizona, USA, February, 2012. (Poster presented by D. Méndez)

"Synthesis, characterization and DFT-aided design of unsymmetrical phthalocyanines to be used as photosensitizers for hydrogen production," D. D. Méndez-Hernández, P. Tarakeshwar, D. Gust, T.A. Moore, V. Mujica and A.L. Moore, ASU-UA Student Conference on Renewable Energy Science, Arizona State University, Arizona, USA, May 2012. (Poster presented by D. Méndez)

"Synthesis and Application of Porphyrin and Phthalocyanine Chromophores for Photoelectrochemical Water Splitting," Jesse J. Bergkamp, Benjamin D. Sherman, Matthieu Koepf, Chelsea L. Brown, Smitha Pillai, Edgar Reyes, Manuel José Llansola Portolés, Thomas A. Moore, Devens Gust, and Ana L. Moore, Gordon Research Seminar/Conference, Photosynthesis. Davidson, NC. July 7-13, 2012. (Poster presented by J. Bergkamp)

"Bio-Inspired Solar Energy Conversion," Devens Gust, Thomas A. Moore, Ana L. Moore, XXIV IUPAC Symposium on Photochemistry, Coimbra, Portugal, July 2012. (Presented by D. Gust) Contributed. Won poster prize.

"Synthesis of Porphyrin and Phthalocyanine Dyes for Photoelectrochemical Water Splitting," Jesse J. Bergkamp, Benjamin D. Sherman, Matthieu Koepf, Smitha Pillai, Gerdenis Kodis, Chelsea L. Brown, Thomas A. Moore, Devens Gust, and Ana L. Moore, Arizona State University/University of Arizona Student Conference on Renewable Energy Science. Tempe, AZ. April 19-20, 2012. (Poster presented by J. Bergkamp)

"Synthesis of Porphyrin and Phthalocyanine Dyes for Photoelectrochemical Water Splitting," Jesse J. Bergkamp, Benjamin D. Sherman, Matthieu Koepf, Smitha Pillai, Gerdenis Kodis, Chelsea L. Brown, Thomas A. Moore, Devens Gust, and Ana L. Moore, Department of Energy Scientific Review Meeting for ASU Energy Frontiers Research Center. Denver, CO, February 6-8, 2012. (Poster presented by J. Bergkamp)

"Synthesis and Use of Porphyrin and Phthalocyanine Chromophores In Solar Energy Conversion," Jesse J. Bergkamp, Benjamin D. Sherman, Matthieu Koepf, Gerdenis Kodis, Chelsea L. Brown, Edgar Reyes, Joseph A. Laureanti, Thomas A. Moore, Devens Gust, and Ana L. Moore.,. 21st Western Photosynthesis Conference, Pacific Grove, CA, January 5-8, 2012. (Poster presented by J. Bergkamp)

"Dye-iridium oxide constructs for light driven water oxidation," Benjamin D. Sherman, Jesse J. Bergkamp, Smitha Pillai, Jackson D. Megiatto Jr., Gerdenis Kodis, Yixin Zhao, Thomas E. Mallouk, Devens Gust, Ana L. Moore, and Thomas A. Moore, 21st Western Photosynthesis Conference, Asilomar Conference Grounds, Pacific Grove, CA, January 5-8th, 2012. (Poster presented by B. Sherman)

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"Balancing spectroscopic and redox properties in a dye-sensitized tandem junction cell for the photolysis of water," Benjamin D. Sherman, Jesse J. Bergkamp, Smitha Pillai, Yixin Zhao, Gerdenis Kodis, Jackson Megiatto, Dalvin Mendez, Thomas E. Mallouk, Devens Gust, Ana L. Moore, Thomas A. Moore, Gordon Research Conference on

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"Electron transfer beats energy transfer," Janneke Ravensbergen, Raoul Frese, Devens Gust, Tom Moore, Ana Moore, and John Kennis, Physics @ FOM Veldhoven, Veldhoven, The Netherlands, 17 – 18 January 2012. (Poster presented by J. Ravensbergen)

"Electron transfer beats energy transfer," Janneke Ravensbergen, Raoul Frese, Smitha Pillai, Antaeres Antoniuk-Pablant, Devens Gust, Tom Moore, Ana Moore, and John Kennis, NanoGe conference International Conference on Nanostructured Systems for Solar Fuel Production, Mallorca, Spain, 25 – 27 March 2012 . (Poster presented by J. Ravensbergen

"Electron transfer beats energy transfer," Janneke Ravensbergen, Raoul Frese, Smitha Pillai, Antaeres Antoniuk-Pablant, Devens Gust, Tom Moore, Ana Moore, and John Kennis, Gordon Research Seminar Renewable Energy: Solar Fuels, Lucca, Italy, 12 – 13 May 2012. (Poster presented by J. Ravensbergen)

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"Ultrafast Energy Transfer in an Artificial Photosynthetic Antenna,"
M. Maiuri, J. J. Snellenburg, I. H. M. van Stokkum, S. Pillai, D. Gust, T. A. Moore, A. L. Moore, R. van Grondelle, G. Cerullo , D. Polli, Ultrafast Phenomena, Lausanne, Switzerland, 8 - 13 July 2012. (Oral presentation by M. Maiuri)

"Design, Synthesis and Characterization of Dyes for Bio-Inspired Electrochemical Solar Cells, Dalvin D. Méndez-Hernández, Vladimiro Mujica, Thomas A. Moore, Devens Gust and Ana L. Moore, Gordon Research Conference on Nanomaterials for Applications in Energy Technology, Ventura, Cal., January 2013. (Poster presented by D. Méndez).

"The challenge of solar energy production from the context of the biosphere:
Does Earth have a surfeit of solar energy?" Thomas A. Moore, Devens Gust and Ana L. Moore, Gordon Research Conference on Photochemistry, Stonehill College, Easton, MA United States, 14-19 July 2013 (Poster presented by T. Moore)

"A bioinspired photoanode for water splitting photoelectrochemical cells," D. D. Méndez-Hernández, B. D. Sherman, J. J. Bergkamp, J. Tomlin, M. Tejeda-Ferrari, C. Brown, M. J. Llansola-Portolés, J. D. Megiatto Jr., G. Kodis, V. Mujica, T. Rajh, O. G. Poluektov, T. A. Moore, D. Gust, and A. L. Moore, The 16th International Congress on Photosynthesis Research, St. Louis, MO, USA, 11-16 August 2013 (Poster presented by A. Moore)

"Carotenoid Triplet Formation in Artificial Photosynthetic Antenna," Denise Galzerano, Smitha Pillai, Katie Wong-Carter, Thomas Moore, Ana Moore, Devens Gust and Bruno Robert, Gordon Research Conference on Carotenoids, Ventura, CA
6-11 January 2013 (Poster presented by Denise Galzerano)

"Bio-inspired photoelectrochemical cells for water splitting," Dalvin D. Méndez-Hernández, Benjamin D. Sherman, Jesse J. Bergkamp, Marely Tejeda-Ferrari, Manuel J. Llansola-Portolés, Jackson D. Megiatto Jr., Gerdenis Kodis, Tijana Rajh, Oleg G. Poluektov, Thomas A. Moore, Devens Gust, and Ana L. Moore, 2013 Scialog Conference, Biosphere 2, Tucson, AZ, 15-18 October 2013 (Poster Presented by A. Moore)

"Photosynthesis in the Anthropocene," Thomas A Moore, Ana L. Moore, Devens Gust, Benjamin Sherman, Michael Vaughn, Jesse Bergkamp, 2013 Scialog Conference, Biosphere 2, Tucson, AZ, 15-18 October 2013 (Poster Presented by T. Moore)

"Photosynthesis in the Anthropocene," Thomas A Moore, Ana L. Moore, Devens Gust, Benjamin Sherman, Michael Vaughn, Jesse Bergkamp, WG1-WG2 Workshop, Perspect-H_2O Supramolecular Photocatalytic Water Splitting, Autrans, France, 2-4 October 2013 (Poster Presented by T. Moore)

"The Photoanode of Photoelectrochemical Cells for the Splitting of Water and Production of Fuel," Ana L. Moore, Dalvin Méndez-Hernández, Antaeres Antoniuk-Pablant, Marely Tejeda-Ferrari, Gerdenis Kodis, Manuel Llansola-Portelés, Tijana Rajh, Oleg Poluektov, Thomas A. Moore and Devens Gust, 23rd Western Regional Photosynthesis Conference, Asilomar, CA, January, 2014. (Poster, presented by A. Moore).

"Systems integration: implementing molecular photo/catalytic components into an overall water-splitting tandem cell," D. Méndez-Hernández, M. Tejeda, E. Reyes, J. Tomlin, M. Chavarot-Kerlidou, V. Artero,T.A. Moore, A. L. Moore, D. Gust, M. Fournier, N. Kaeffer, SOFI Solar Fuels Institute meeting, Ventura, CA, 25-26 Jan 2014.
(Poster presented by M. Fournier and N. Kaeffer**)**

"Photosynthesis in the Anthropocene," Thomas A. Moore, Ana L. Moore and Devens Gust, Alternative Energy Gordon Research Conference, Venture, CA, 19-24 January 2014. (Poster presented by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A Moore and Michael Vaughn, 2014 Research Corporation Scialog Conference, Biosphere 2, Tucson, AZ, 14-17 October 2014 (Poster Presented by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A Moore and Michael Vaughn, 24th Western Regional Photosynthesis Conference, Pacific Grove, CA., 8-11 January 2015. (Poster Presented by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A Moore and

Michael Vaughn, Photosynthetic Antenna Research Center All Hands Meeting, St Louis, MO, 23-25 June 2015. (Poster Presentation by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A Moore and Michael Vaughn, 79th Harden Conference: Oxygen Evolution and Reduction - Common Principles, Poster Number P013, Innsbruck, Austria, 16 – 20 April 2016. (Oral and Poster Presentation by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A. Moore and Michael Vaughn, 25th Inter-American Photochemical Society, Santiago, Chile, 24-27 May 2016. (Poster presented by T. Moore)

"The end-Permian extinction as a warning for the Anthropocene," Thomas A. Moore and Michael Vaughn, The 26th Western Photosynthesis Conference Marconi Conference Center, Marshall, CA, January 5–8, 2017. (Poster presented by T. Moore)

SEMINARS AT UNIVERSITIES (2002-present):

"Assembling an Artificial Photosynthetic Membrane," Department of Chemistry and Biochemistry, University or Texas at Arlington, Arlington, TX. 18 October 2002.

"Bioinspired Solar Energy Conversion for Sustainable Energy Production," Department of Chemistry, Portland State University, Portland, OR. 24 October 2003.

"The design and function of artificial photosynthetic antennas and reaction centers," Université Paris Sud XI, Orsay, France, 7 Oct 2005, Special lecture as part of my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"Artificial Photosynthesis and bio-inspired constructs for sustainable energy conversion," T. Moore, Special lecture as part of my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France, CEA Saclay, 11 October 2005.

"The Design and Assembly of Artificial Photosynthetic Antennas, Reaction Centers and Membranes I," Université Paris Sud XI, Orsay, 2 May 2006, Special lecture in connection with my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"The Design and Assembly of Artificial Photosynthetic Antennas, Reaction Centers and Membranes II," Université Paris Sud XI, Orsay, 5 May 2006, Special lecture in connection with my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," Department of Chemistry, University of Victoria, Victoria, BC. 12 March 2007

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," 3M Lecture in Materials Science, Department of Chemistry, University of British Columbia, Vancouver, BC. 13 March 2007.

"The Design and Assembly of Artificial Photosynthetic Antennas, Reaction Centers and Membranes III," Université Paris Sud XI, Orsay, 3 April 2007, Special lecture in connection with my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," Université Paris Sud XI, Orsay, 3 April 2007, Special lecture in connection with my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," Ecole Polytechnique, Palaiseau, 5 April 2007, Special lecture in connection with my appointment as Chaire Internationale de Recherche Blaise Pascal, Région d'Ile de France.

"Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion," UC Davis, Davis, CA. 16 October 2007.

Short course, Membrane Bioenergetics, Instituto Tecnológico de Estudios Superiores de Monterrey, Monterrey, Mexico. 12 November 2007.

Bio-inspired chemistry: A pathway to sustainable energy production and use" Thomas A. Moore, Lauréat Chaire Blaise Pascal 2005, Conférence de cloture, Paris, France. 15 mai 2008.

"Balancing Earth's energy budget - Human ingenuity in the search for energy sustainability," Tito Scaiano Lecture I, University of Ottawa, Ottawa, CA, May 29, 2008.

"Bio-inspired chemistry to meet human needs," Tito Scaiano Lecture II, University of Ottawa, Ottawa, CA, May 30, 2008.

"Bioenergy: A pathway to sustainable energy production and use," Professional Education Programs, Renewable Energy: Capturing the Sun, Massachusetts Institute of Technology, Boston, MA, August 5, 2008.

"Artificial Photosynthesis: Combining Technology with Biology for Solar Energy Conversion," Plant Biochemistry Laboratory, Department of Plant Biology and Biotechnology, University of Copenhagen, Denmark, September 18, 2008.

"72 Billion People on Earth? You must be crazy - J. Diamond. (Some facts about the state of our planet)" How to survive 2050, a lecture series for honors students, Vrie University, Amsterdam, 10 February 2009.

"Balancing Earth's Energy Budget – Pay Now or Pay Later. Energy, finite resources and near-infinite technology. Steps towards surviving 2050," How to survive 2050, a lecture series for honors students, Vrie University, Amsterdam, 12 February 2009.

"72 Billion People on Earth? You must be crazy - J. Diamond. A lecture about energy, finite resources and near-infinite technology," Virginia Tech Biology at Punta Cana, Dominican Republic, 9 October 2009.

"72 Billion People on Earth? You must be crazy - J. Diamond. A lecture about energy, finite resources and near-infinite technology," University of Connecticut, Stores, Connecticut, 14 October 2009.

"Balancing Earth's Energy Budget - Pay Now or Pay Later," Bowdoin College, Brunswick, Maine, 16 October 2009.

"Combining technology with biology for efficient energy production and use," Gerhard Closs Lecture, University of Chicago, Chicago, IL, 26 October 2009.

"Combining technology with biology for efficient energy production and use. Balancing Earth's Energy Budget - Pay Now or Pay Later. A lecture about energy, finite resources and near-infinite technology," FCEN. Universidad de Buenos Aires, Buenos Aires, Argentina, 19 November 2009

"Combining Technology with Biology for Efficient Energy Production and Use," STAIR Seminar Series, University of Tennessee, Knoxville, TN, 25 March 2010

"Combining Technology with Biology for Efficient Energy Production and Use," Purves Lecture, McGill University, Montreal, Canada, 4 May 2010

Advanced Course, Big issues in energy materials, "Biological Materials Combining Biology and Technology for Solar Energy Conversion," Vrije Universiteit, Amsterdam, 5 October 2010.

ASU/TU Delft Workshop on Renewable Energy, "Artificial Photosynthesis," ASU Tempe Campus, 18 November 2010

"Artificial photosynthesis - human ingenuity supersedes evolution," University of Surrey, Surrey, UK, 26 January 2011.

"Combining Biology and Technology for Solar Energy Conversion," T. A. Moore, Two Lectures in Advanced Course "Big issues in energy materials, Biological Materials," Department of Physics and Astronomy, Vrije Universiteit, Amsterdam, The Netherlands, 4 October 2011.

"Bio-inspired science and technology for sustainable solar energy conversion," Department of Chemistry, UC Berkeley, Berkeley, CA, 10 April 2012.

"Imagine* photosynthesis where human ingenuity surpasses evolution" (*John Lennon), Norman Hascoe Lectures on the Frontiers of Science, University of Connecticut, Stores, Connecticut, 16 April 2012.

"Bioenergy research in the Center for Bioenergy and Photosynthesis," Thomas A Moore, LightWorks Meeting, 17 July 2012, Arizona State University, Tempe, AZ

"Artificial photosynthesis combines biology with technology for sustainable energy transformation," Thomas A. Moore, Weed Lecture, University of Arizona, Tucson, AZ, 13 April 2013

"Artificial photosynthesis – Helping nature regain control of the global carbon cycle," Thomas A. Moore, Distinguished Speaker Series, Department of Bioengineering, University of California Riverside, Riverside, CA, 11 Feburary 2015

Adds to CV

Teaching:
Spring 2016: IGERT SUN and ½ (shared with J Allen) of CHM 460
Fall 2016: CHM 191 explained below and IGERT SUN
In addition to the courses listed by the provost, as part of my teaching job I taught two lecture periods each of the ~ 10 sections of CHM 191, Fall 2016, and plan to expand this to three lectures for each section of CHM 191, Fall 2017. In these lectures I present the science necessary to undersand the global carbon cycle, the role of photosynthesis in controlling it, and the impact of human activity on it. I highlight sustainability research across the ASU campus with emphasis on research in SMS and counsel students about undergraduate research opportunities in SMS and other units.

Grants:
Our DOE grant in Solar Photochemistry, BES, has been renewed starting Feb 2017 for three years.

Mentoring:
no undergraduates, no graduate students, I share mentoring responsibilities for three postdocs with Ana and Devens.

Service:
SMS: Serving on a search committee starting fall, 2016, chaired by Anne Jones.
Served on bioenergy search committee spring 2016 chaired by Petra. We hired Yuval
Member of the Committee on Faculty Mentoring
Member of the Committee on Valley Connections

CLAS: Served on the committee which established the PhD program in SOS. First class will be recruited this spring. Program grew out of the IGERT SUN, PI Wim Vermaas. I taught in this IGERT for the last five years.

National/international: Normal amount of reviewing and all. EES editorial board member, Chair of the Strategic Advisory Council, Photosynthetic Antenna Research Center (PARC, an EFRC at Wash U, St. Louis, https://parc.wustl.edu/). On the Consulting Council of the Vale Institutes of Technology http://www.itv.org/en/

International collaborations:
Active with groups in The Netherlands (Rienk van Grondelle and John Kennis, both at Vrije Universiteit, Amsterdam); France (Bruno Robert at CEA, Saclay); Argentina (Mónica Gonzalez, Universidad Nacional de La Plata and Rodrigo Palacios, Universidad Nacional de Río Cuarto).