## Curriculum Vitae Wei Zheng

Plastics Engineering Program Department of Engineering and Technology College of Science, Technology, Engineering, and Mathematics University of Wisconsin-Stout (UW-Stout) Menomonie, Wisconsin 54751 715/232-2385 zhengw@uwstout.edu

#### Education

**B.S.**, Chemical Engineering, East China University of Science and Technology, Shanghai, China (2003)

**Ph.D.**, Chemical Engineering, Texas Tech University (TTU), Lubbock, TX (2008)

**Postdoc**, Chemical Engineering, Texas Tech University (TTU), Lubbock, TX (2008 – 2010) **Postdoc**, Polymer Science and Engineering, University of Massachusetts-Amherst (2010 – 2011)

#### **Professional Appointments**

Program Director, Plastics Engineering, UW-Stout (Aug. 2017 – Present) Associate Professor, Engineering and Technology Department, UW-Stout (Aug. 2016 – Present) Assistant Professor, Engineering and Technology Department, UW-Stout (2012 – 2016)

### **Institution and Professional Service**

UW-Stout

- Chair of Plastics Engineering Faculty Search Committee (May 2017 Dec 2017)
- Faculty Senate Committee (Mar. 2017 Present)
- Concentration coordinator, Engineering Technology Plastics (2016 Present)
- Member of Plastics Engineering Advisory Board (2012 Present)
- Member of M.S. Manufacturing Engineering Advisory Board (2012 Present)
- Wisconsin Science Olympia Medal Presenter (Apr. 2016)
- Member of Provost Search Committee (2014 2015)
- Member of Planning and Reviewing Committee (2013 2015)
- Member of Chemical Engineering Program Planning Committee (2014 2015)
- Instructor of STEPS for Girls program (2013, 2015)
- Member of Plastics Engineering Board for ABET accreditation (2012 2013)
- Member of Packaging Faculty Search Committee (2012 2013)
- Academic Advisor for over 40 students annually in the Manufacturing Engineering and Engineering Technology Programs (2012 Present)
- Research Advisor for 15 undergraduate students, 1 master student\*, and 2 visiting scholar\*\* (2012 Present)

Personnel	Major	<b>Collaboration Period</b>	Current Affiliation
Nicolas Beach	Plastics Engineering	09/2016 - 05/2017	UW-Stout
Kevin Fuhrman	Plastics Engineering	05/2016 - 05/2017	UW-Stout

			University of Shanghai for
Dr. Jinghua Chen**	Packaging	08/2015 - 06/2016	Science and Technology
Michael Beeler	Plastics Engineering	05/2014 - 05/2016	Applied Medical
Max Zamzow	Plastics Engineering	09/2015 - 05/2016	Madison Group
Kristina Zmuda	Plastics Engineering	01/2015 - 05/2015	STIHL
Kyle Klein	Plastics Engineering	01/2015 - 05/2015	UW-Stout
Justin Claus	Plastics Engineering	12/2013 - 12/2014	Medtronic
Meghan Boyum	Plastics Engineering	10/2013 - 05/2014	Donatelle
Charlo Siprien	Applied Science	10/2013 - 12/2013	UW-Stout
Mathew Hofmeister*	Manufacturing Engineering	01/2013 - 05/2013	Ocean Spray
Jon Soffa	Engineering Technology	06/2013 - 12/2013	UW-Stout
Michael Davis	Plastics Engineering	10/2012 - 06/2014	UW-Stout
Dayton Ramirez	Plastics Engineering	09/2012 - 05/2013	Madison Group
Ryan Amundson	Plastics Engineering	09/2012 - 12/2012	ProMed Molded Products
Nuray Celebi**		05/2012 - 08/2012	Baskent University
Jordan Henricks	Packaging	06/2012 - 05/2013	LeanCor Supply Chain Group
Derek Bruesch	Plastics Engineering	02/2012 - 05/2012	Flambeau

### Professional Organizations

- Councilor of Applied Rheology Division of Society of Plastics Engineers (SPE) (2016 Present)
- President of Chinese American Society of Plastics Engineers (2016 Present)
- Chair and Councilor of Applied Rheology Division of SPE (2014 2016)
- Chair of Applied Rheology Special Interest Group of SPE (04/2014 07/2014)
- Technical Program Chair of Applied Rheology Special Interest Group of SPE (2012 2014)
- Vice-President of Chinese American Society of Plastics Engineers (2015 2016)
- Journal Reviewer for Journals such as Macromolecule; Journal of Polymer Science B: Polymer Physics; Royal Society of Chemistry Advances; Journal of Thermal Analysis and Calorimetry; Journal of Composite Materials (2008 – Present)
- Proposal Reviewer for National Science Foundation (2015 Present)
- Session Chair of North American Thermal Analysis Annual Conference (2009)

## Courses

On-campus courses:

- PLE-405: Capstone I (Fall 14, Spring15, Spring 17)
- PLE-410: Capstone II (Fall 14, Spring15, Spring 17)
- ETECH-250: Introduction to Plastics (Fall 12, 13, 14, 15, 16, 17)
- ETECH-251: Fundamentals of Plastics Materials and Processing (Fall and Spring 12, 13, 14, 15, 16, Spring 16)
- PLE-360: Plastics Testing and Analysis (Spring 12, 13, 14, 15, 16, 17)
- MFGE-352: Manufacturing Process Engineering II (polymer part) (Fall 12, Spring 13) <u>Online courses:</u>
  - MFGE-707: Field Project Formulation (Fall 12)
- MFGE-735: Field Problem in Manufacturing Engineering (Spring 14) Hybrid course: 70% online and 30% on campus
  - MFGE-753: Polymer Engineering (Fall 13, Fall 17)

Selected Course Projects and Presentations (total 50 student presentations)

- Processing and Characterization of Polylactic Acid (Spring 2012)
- Characterization and Processing of Polyethylene (Fall 2012)
- Synthesis and Characterization of Polystyrene (Spring 2013)
- PLA Filament: 3D Printing and Color Additive Effects (Spring 2013)
- Design and Manufacture of PMMA Magnifying Glasses (Fall 2014)
- Cross-WLF Viscosity Model for Processing Simulations (Spring 2015)
- Evaluation of Priamus FILLCONTROL Control M Software (Fall 2014, Spring 2015)
- Fabrication and Analysis of LED Face-Lit Acrylic Letters (Fall 2014, Spring 2015)
- Design and Construction of Extrusion Capillary Rheometer (Fall 2014, Spring 2015)
- Fabrication and Testing of Bio-Absorbable Polylactic Acid Bone Screw (Fall 2014, Spring 2015)
- Expanding MAAC Thermoformer Capabilities (Fall 2016, Spring 2017)
- Pen Production (Fall 2016, Spring 2017)

## **Funded Grants**

- "Preparation of a RUI Proposal: Reverse-Crosslinking of a Novel Thiol-Containing Resin", UW-Stout, 01/2017 12/2017, \$7,500.
- G. A. Taft Manufacturing Engineering Endowed Professorship, UW-Stout, 07/2016 07/2019, \$27,000.
- UW System-WiSys Applied Research Grant, Wei Zheng (co-PI), "Further Characterization of "Green" Thermosetting Resins: Material Data Sheets and Degradation Kinetics", UW-System, 07/2015 – 06/2016, \$47,925 (\$23,985 goes to UW-Stout).
- Travel Grant for Distinguished Research Scientists from Undergraduate Institutes, Wei Zheng (PI), "Professional Development: Attending Gordon Research Conference: Polymer Physics 2014", Predominantly Undergraduate Research Institute Fund, \$880.
- UW System-WiSys Applied Research Match Grant, Wei Zheng (PI), "Short Extension on Processing and Cure Kinetic Study of a Novel Biopolymer", 10/2013 06/2014, \$7,318.
- UW System-WiSys Applied Research Grant, Wei Zheng (PI), "Development of Biodegradable Polylactic Acid/Clay Nano-Composites: Mechanical Strength, Gas Barrier, and Thermal Stability", UW-System, 07/2013 06/2014, \$49,871.
- Lesson Study Project from Office of Professional and Instructional Development (OPID) of UW-System (Spring 2014), Wei Zheng (co-PI), \$1000.
- "Kinetic Study of a Novel Biopolymer", UW-System, 10/2012 06/2013, \$21,572.
- Undergraduate Student Grant: Derek Bruesch, "Effects of Blend Composition and Morphology on Processing", UW-Stout, 03/2012 04/2012, \$819.
- Undergraduate Research Assistant Grant, Discovery Center, UW-Stout, \$4000, 07/2012 06/2013.
- Faculty Research Start-up Fund, UW-Stout, \$5000.

# **Funded Technical Contracts:**

- Nolato Technical Assistance Project, Wei Zheng (PI), "Shrinkage Prediction", 08/2016 Present, \$3,000.
- Presco Technical Assistance Project, Wei Zheng (PI), "Stress release of PVC films",

04/2017, \$800.

- Advantek Technical Assistance Project, Wei Zheng (PI), "Degradation and Moisture Contents of Engineering Plastics", 03/2017, \$800.
- Nolato Technical Assistance Project, Wei Zheng (PI), "Structure Analysis of ABS materials", 01/2017, \$800.
- FilmTech Technical Assistance Project, Wei Zheng (PI), "Thermal Analysis on a Plastic Film", 08/2014, \$1,328.
- Eastman Chemical Technical Assistance Project, Wei Zheng (co-PI), "Tritan Polymer Processing and Testing", 06/2014 08/2014, \$5,530.

## **Unfunded Grants**

- US Department of Energy, "National Network for Manufacturing Innovation in Packaging", a 5-year multi-institutional proposal between UW-Stout, UW-Madison, Michigan State University, and Clemson University to reduce natural resource usage in plastics packaging, 2017 2022. \$1.4 M (\$1,394,777), 2017 2012.
- Education Foundation Grant, "Travel Support for Film Production on Understanding Plastics", \$6,525, 2017 2018.
- UW System-WiSys Applied Research Grant, "Fabrication of 3D Tissue Engineering Scaffolds with Controlled Microstructure and Properties", \$49,500, 2013 2014.
- UW System- Regent Scholar Grant, "A Novel Thermosetting Resin: Reversible Crosslinking Examination and Injection Molding Simulation", \$49,992, 2016 2017

## Refereed Publications (718 citations as of 9/14/2017)

\*indicates the corresponding author

- W. Zheng\*, M. Beeler, J. Claus, and X. Xu, "Polylactic Acid/Montmorillonite Blown Films: Crystallization, Mechanics, and Permeation", Journal of Applied Polymer Science, 134, 45260, 2017.
- M. Davis, J. Droske, and W. Zheng\*, "Curing Kinetics of a "Green" Thiol-Containing Resin: Oligo(Ethylene-2-Mercaptosuccinate)", Journal of Applied Polymer Science. 133, 43205, 2016.
- 14. J. Henricks, M. Boyum, and W. Zheng\*, "Crystallization Kinetics and Structure Evolution of a Polylactic Acid during Melt and Cold Crystallization", Journal of Thermal Analysis and Calorimetry, 120, 1765, 2015.
- C. Li, Y. Cai, Y. Zhu, M. Ma, W. Zheng, and J. Zhu\*, "Polyacrylamide-Metal Nanocomposites: One-Pot Synthesis, Antibacterial Properties, and Thermal Stability", Journal of Nanoparticle Research, 15: UNSP 1922 (2013).
- 11. W. Zheng, A. Mohammed, L. Hines Jr., D. Xiao, O. J. Martinez, R. A. Bartsch, S. L. Simon, O. Russina, A. Triolo, and E. L. Quitevis\*, "Effect of Cation Symmetry on the Morphology and Physicochemical Properties of Imidazolium Ionic Liquids", Journal of Physical Chemistry B, 115, 6572 (2011).
- 10. W. Zheng, G. B. McKenna, and S. L. Simon\*,"The Viscoelastic Behaviors of Athermal Solutions", Polymer, 51, 4899 (2010).
- 9. C. Dalle-Ferrier, S. Simon\*, W. Zheng, P. Badrinarayanan, T. Fennell, B. Frick, J. M. Zanotti, and C. Alba-Simionesco, "The Consequence of Excess Configurational Entropy

on Fragility: the Case of a Polymer/Oligomer Blend", Physical Review Letters, 103, 185702 (2009).

- W. Zheng and S. L. Simon\*, "The Glass Transition of Athermal Poly(α-Methyl Styrene/Oligomer Blends", Journal of Polymer Science: Part B: Polymer Physics, 46, 418 (2008).
- 7. P. Badrinarayanan, W. Zheng, and S. L. Simon, "On the Validity of the Isoconversion Analysis for the Glass Transition", Thermochimica Acta, 468, 87 93 (2008).
- 6. W. Zheng and S. L. Simon, "Confinement Effects on the Glass Transition of the Hydrogen Bonded Liquids", Journal of Chemical Physics, 127, 194501-1-194501-11 (2007); also published in visual publication.
- 5. P. Badrinarayanan, W. Zheng, Q. X. Li, and S. L. Simon, "The Glass Transition Temperature versus the Fictive Temperature", Journal of Non-Crystalline Solids, 353, 2603 2612 (2007).
- R. Pitchimani, W. Zheng, S. L. Simon, L. Hope-Weeks, A. K. Burnham, and B. L. Weeks, "Thermodynamic Analysis of Pure and Impurity Doped Pentaerythritol Tetranitrate Crystals Grown at Room Temperature", Journal of Thermal Analysis and Calorimetry, 89, 475 – 478 (2007).
- 3. W. Zheng and S. L. Simon, "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", Polymer, 47, 3520 3527 (2006).
- J. Zhu, W. Zheng, B. He, J. Zhang, and M. Anpo, "Characterization of Fe-TiO<sub>2</sub> Photocatalysts Synthesized by Hydrothermal Method and Their Photocatalytic Reactivity for Photodegradation of XRG Dye Diluted in Water", Journal of Molecular Catalysis A: Chemical, 216: 35 – 43 (2004).
- 1. J. Zhu, Q. Sheng, W. Zheng, H. Bin, J. Zhang, and M. Anpo, "Characterization and Photocatalytic Reactivity of Fe-TiO<sub>2</sub> Photocatalysts Synthesized by Hydrothermal Method", China Scientific and Technological paper online, 200312-45 (2003).

### **Conference Proceedings**

\*indicates the corresponding author

- K. Fuhrman and W. Zheng\*, "Creep and Recovery of polylactic acid and Its Clay Nanocomposite", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC) (2017).
- J. Chen and W. Zheng, "The Effects of Nano-Clay on the Rheological Properties of Polylactic Acid", Accepted, Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC) (2016).
- 14. J. Claus, J. Pischlar, B. Holm, A. Kramschuster, and W. Zheng\*, "A method for Determining the Seven Coefficients of the Cross-WLF equation", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC) (2015).
- 13. W. Zheng\*, T. Becker, and X. Ding, "The Effects of "Flipped Classroom" Concept on the Effectiveness of Teaching", ASEE North Midwest Section Conference (2014).
- 12. M. Davis, J. Droske, and W. Zheng\*, "Curing Study of a Green Thermosetting Resin", SPE ANTEC (2014).
- 11. J. Henricks, M. Davis, and W. Zheng\*, "Thermal and Rheological Characterization of Polylactic Acid", SPE ANTEC (2013), p2159.
- 10. W. Zheng, G. B. McKenna, and S. L. Simon\*,"The Viscoelastic Behaviors of Athermal Solutions", Proceedings, SPE ANTEC (2010).

- 9. W. Zheng, G. B. McKenna, and S. L. Simon\*,"The Viscoelastic Behaviors of Athermal Blends", Proceedings, North American Thermal Analysis Society (NATAS) 37th Annual Conference (2009).
- C. Dalle-Ferrier, C. Alba-Simionesco, W. Zheng, P. Badrinarayanan, and S. L. Simon\*, "The Glass Transition and Fast Dynamics in Athermal Polystyrene/Oligomer Blends", Proceedings, NATAS, 36th Annual Conference (2008), p. 1.
- 7. W. Zheng and S. L. Simon\*, "T<sub>g</sub> in Polymer/Oligomer Athermal Blends", Proceedings, SPE ANTEC (2007), p. 1798.
- 6. P. Badrinarayanan, W. Zheng, and S. L. Simon\*, "Isoconversion Analysis of the Glass Transition", Proceedings, SPE ANTEC (2007), p. 1766.
- 5. W. Zheng and S. L. Simon, "Confinement Effects on T<sub>g</sub>: Thermodynamics versus Dynamics", Proceedings, NATAS, 34th Annual Conference (2006), p. 142.
- 4. R. Pitchimani, W. Zheng, S. Simon\*, L. Hope-Weeks, A. K. Burnham, B. L. Weeks, "Thermodynamic Analysis of Pure and Impurity Doped Pentaerythritol Tetranitrate Crystals Grown at Room Temperature", Proceedings, NATAS, 34th Annual Conference (2006), p. 92.
- 3. W. Zheng and S. L. Simon\*, "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", Proceedings, NATAS, 33rd Annual Conference (2005).
- 2. W. Zheng and S. L. Simon\*, "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", Proceedings, 22nd Annual All-University Conference on the Advancement of Women (2006).
- 1. J. Zhu, W. Zheng, B. He, and J. Zhang\*, "Preparation, Characterization and Photocatalytic Reactivity of Fe-TiO<sub>2</sub> Photocatalysts", Proceedings, China Solar Energy Society 2003 Annual Conference (2003), p. 996.

#### **Conference Presentation and Seminar**

- 39. "Creep and Recovery of polylactic acid and Its Clay Nano-composite", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC), Anaheim, CA (May 2017).
- "Plastics Research Development", Manufacturing Advantage Conference, Menomonie, WI (Sept. 2016).
- "The Effects of Nano-Clay on the Rheological Properties of Polylactic Acid", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC), Indianapolis, IN (May 2016)
- 37. "Material Data Sheet of A "Green" Thermosetting Resin", Undergraduate Research Symposium, Stevens Point, WI (Apr. 2016).
- 36. "A "Green" Thermoset Versus Polylactic Acids", 3<sup>rd</sup> Bioplastic Materials TopCon and Tutorial, Minneapolis, MN (Apr. 2016).
- 35. "A Method for Determining the Seven Coefficients of the Cross-WLF Equation", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC), Orlando, FL (Mar. 2015).
- 34. "Seven Coefficients for Injection Molding Simulation Software", SPE ANTEC, Orlando, FL (Mar. 2015).
- 33. "Crystallization Kinetics and Structure Evolution of a Polylactic Acid", Gordon Research Conference: Polymer Physics, South Hadley, MA (July 2014).
- 32. "The Effects of "Flipped Classroom" Concept on the Effectiveness of Teaching", ASEE North Midwest Section Conference, Iowa City, IA (Oct. 2014).

- 31. "Curing Kinetics of a "Green" Thermosetting Resin", Department of Physics, University of Wisconsin-LaCrosse, La Crosse, WI (Nov. 2014) (Invited).
- 30. "Research Development on Biodegradable Plastics", Wisconsin Science and Technology Symposium, Eau Clarie, WI (July 2014).
- 29. "Processing and Characterization of Polylactic Acid/Clay Nano-composite Films", Wisconsin Science and Technology Symposium, Eau Clarie, WI (July 2014).
- 28. "Curing Kinetics of a "Green" Thermosetting Resin", Wisconsin Science and Technology Symposium, Eau Clarie, WI (July 2014).
- "Isothermal Crystallization and Structure Evolution during Melt and Cold Crystallization", Wisconsin Science and Technology Symposium, Eau Clarie, WI (July 2014).
- 26. "Curing Study of a Green Thermosetting Resin", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC), Las Vegas, NV (Apr. 2014).
- 25. "Curing Studies of Novel Thermosetting Resins", Wisconsin Science and Technology Symposium, Superior, WI (July 2013) (Invited).
- 24. "Curing Kinetics of Poly(Alkylene Mercaptosuccinates)", Wisconsin Science and Technology Symposium, Superior, WI (July 2013).
- 23. "Thermal and Rheological Characterization of a Polylactic Acid", Annual Technical Conference of Society of Plastics Engineers (SPE ANTEC), Cincinnati, OH (Apr. 2013).
- 22. "The Compliance Issues with Commercial Rheometers", North American Thermal Analysis Society (NATAS) 38th Annual Conference, Philadelphia, PA (Aug. 2010).
- 21. "The Viscoelastic Behaviors of Athermal Solutions", Society of Plastics Engineers Annual Technical Meeting (SPE ANTEC), Orlando, FL (May 2010).
- 20. "New Symmetric Ionic Liquids and Their Properties", American Chemical Society 65th Southwest Regional Meeting, El Paso, TX (Nov. 2009).
- 19. "The Viscoelastic Behaviors of Athermal Solutions", Society of Rheology (SOR) 80th Annual Conference, Madison, WI (Oct. 2009).
- 18. "The Viscoelastic Behaviors of Athermal Blends", North American Thermal Analysis Society (NATAS) 37th Annual Conference, Lubbock, TX (Sept. 2009).
- 17. "The Viscoelastic Behavior of Polymer/Oligomer Blends", American Physical Society (APS) March Meeting, Pittsburgh, PA (Mar. 2009).
- "The Glass Transition and Fast Dynamics in Athermal Polystyrene/Oligomer Blends", North American Thermal Analysis Society (NATAS) 36th Annual Conference, Atalanta, GA (Aug. 2008).
- "The Glass Transition and Dynamics in Athermal Poly(a-methyl Styrene)/Oligomer Blends", American Physical Society (APS) March Meeting, New Orleans, LA (Mar. 2008).
- 12. "T<sub>g</sub> in Polymer/Oligomer Athermal Blends", International Polyolefins Conference, Houston, TX (Feb. 2008).
- "Effect of Symmetry of the Cation on the Intermolecular Dynamics and Physical Properties of Imidazolium Ionic Liquids", 2nd International Congress on Ionic Liquids, Yokoyama, Japan (Aug. 2007)

- 12. "T<sub>g</sub> in Polymer/Oligomer Athermal Blends", Society of Plastics Engineers Annual Technical Meeting (SPE ANTEC), Cincinnati, OH (May 2007).
- 11. "Isoconversion Analysis of the Glass Transition", Society of Plastics Engineers Annual Technical Meeting (SPE ANTEC), Cincinnati, OH (May 2007).
- 10. "The Glass Transition of Polymer/Oligomer Athermal Blends", American Physical Society (APS) March Meeting, Denver, CO (Mar. 2007).
- 9. "Confinement Effects on the Glass Transition of the Hydrogen Bonded Liquids", American Physical Society (APS) March Meeting, Denver, CO (Mar. 2007).
- 8. "Isoconversion Analysis of the Glass Transition", American Physical Society March Meeting, Denver, CO (Mar. 2007).
- "Confinement Effects on T<sub>g</sub>: Thermodynamics versus Dynamics", North American Thermal Analysis Society (NATAS) 34th Annual Conference, Bowling Green, KY (Aug. 2006).
- 6. "Thermodynamic Analysis of Pure and Impurity Doped Pentaerythritol Tetranitrate Crystals Grown at Room Temperature", North American Thermal Analysis Society (NATAS) 34th Annual Conference (Aug. 2006).
- "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", The Texas and Southwest Thermal Analysis and Rheology Forum (NaTex), Dallas, TX (Apr. 2006).
- 4. "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", American Physical Society (APS) March Meeting, Baltimore, MD (Mar. 2006).
- "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", 22nd Annual All-university Conference on the Advancement of Women, Lubbock, TX (Mar. 2006).
- "Polystyrene Freeze Dried from Dilute Solution: T<sub>g</sub> Depression and Residual Solvent Effects", North American Thermal Analysis Society (NATAS) 33rd Annual Conference, Universal City, CA (Sept. 2005).
- 1. "Preparation, Characterization and Photocatalytic Reactivity of Fe-TiO<sub>2</sub> Photocatalysts", China Solar Energy Society 2003 Annual Conference, Shanghai, China (Oct. 2003).