

PO-WEN (CEDRIC) CHUNG, Ph. D.

CURRICULUM VITAE



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EDUCATION

Ph.D. Chemistry (Fall 2009), Iowa State University, Ames, IA 50011
Dissertation: Synthesis, characterization, and application of surface-functionalized ordered mesoporous nanoparticles
Research Advisor: Professor Victor S.-Y. Lin (*deceased on 4th of May, 2010*)

M.S. Chemistry (1999), National Tsing Hua University, Hsinchu 30013, Taiwan
Thesis: Synthesis of copper ketoiminate complexes and its application in chemical vapor deposition
Research Advisor: Professor Yun Chi

B.S. Chemistry (1997), National Tsing Hua University, Hsinchu 30013, Taiwan

RESEARCH EXPERIENCE

Assistant Research Fellow (7/2015 – present)
Institute of Chemistry
Academia Sinica, Taipei 11529, Taiwan

Associate Project Scientist (8/2014 – 6/2015)
Energy Bioscience Institute
Department of Chemical & Biomolecular Engineering
Research Advisor – Professor Alex Katz
University of California, Berkeley, CA 94720-1462

Postdoctoral research associate (10/2010 – 07/2014)
Energy Bioscience Institute
Department of Chemical & Biomolecular Engineering
Research Advisor – Professor Alex Katz
University of California, Berkeley, CA 94720-1462

Postdoctoral research associate (8/2009 – 9/2010)
Department of Chemistry
Research Advisor – Professor Victor S.-Y. Lin
Iowa State University, Ames, IA 50011

Graduate Research Assistant (01/2005 – 07/2009)
Department of Chemistry
Research Advisor – Professor Victor S.-Y. Lin
Iowa State University, Ames, IA 50011

PO-WEN (CEDRIC) CHUNG, Ph. D.

Associate Researcher (06/2002 – 07/2003)

Department of Chemical Engineering

Research Advisor – Dr. Kuo-Chen Shih

Industrial Technology Research Institute, Hsinchu310, Taiwan

TEACHING EXPERIENCE :

Advanced Inorganic Chemistry (2016 Spring)

Department of Chemical Engineering

National Taiwan University of Science & Technology

Graduate Teaching Assistant (08/2003 – 12/2005)

Department of Chemistry

Research Advisor – Professor Patricia Thiel

Iowa State University, Ames, IA 50011

- Teaching assistant for general chemistry lecture and laboratory (CHEM 177 & CHEM 178)
- Teaching assistant for surface chemistry laboratory (CHEM 576)
- Studied the atomic behavior of silver through scanning tunneling microscopy (STM)
- Specialized in ultra high vacuum system

AWARDS AND HONORS

- Special Recruiting Fellowship of Minister of Science & Technology 2015 (科技部延攬特殊優秀人才補助)
- The best poster award of EBI retreat 2011 (An award of \$100)
- Ames Laboratory Inventor Incentive Award, May 2008 (An award of \$200)
- Chevron Phillips Fellowship, June 2009 (An award of \$1700)
- Travel Award of Midwest Regional Meeting of the American Chemical Society

ORGANIZATIONS

- Military Service and being a Corporal (10/1999-05/2001)
- Member of American Chemical Society (05/2007- present)
- Member of AIChE (09/2011-present)
- Serve as a **Peer-Reviewer** for *ACS Nano, Langmuir, ChemSusChem, Journal of Porous Materials, Catalysis Science & Technology, Catalysis Review, ACS Catalysis, Journal of Chinese Chemical Society, Applied Catalysis A: General*

PATENTS AUTHORED

U.S. Patent: WO 2,013,059,523 (Date of Patent: April 26th, 2013)

Title: “CARBONACEOUS MATERIAL FOR PURIFYING LIGNOCELLULOSIC OLIGOMERS”

U.S. Patent: US 8361623 B2 (Date of Patent: August 5th, 2010)

PO-WEN (CEDRIC) CHUNG, Ph. D.

Title: "SEQUESTRATION OF COMPOUNDS FROM MICROORGANISMS"

U.S. Patent: US 7632959 B2 (Date of Patent: December 15th, 2009)

Title: "THIOCARBONYLTHIO COMPOUND AND FREE RADICAL POLYMERIZATION EMPLOYING THE SAME"

TW. Patent: TW 238166 (Date of Patent: August 21st, 2005)

Title: "THIOCARBONYLTHIO COMPOUND AND FREE RADICAL POLYMERIZATION THEREWITH"

SELECTED PUBLICATIONS

- 1) **Po-Wen Chung**, Mizuho Yabushita, Anh The To, YounJue Bae, Joseph Jankolovits, Hirokazu Kobayashi,* Atsushi Fukuoka,* Alexander Katz,* Long-Chain Glucan Adsorption and Depolymerization in Zeolite-Templated Carbon. *ACS Catal.* **2015**, *5*, 6422-6425. (*SCI*; *ISI Impact Factor: 9.312*)
- 2) **Po-Wen Chung**, Alexandre Charmot; Timothy Click; Yuchun Lin; YounJue Bae; Jhih-Wei Chu;* Alexander Katz*, Importance of Internal Porosity for Glucan Adsorption in Mesoporous Carbon Materials. *Langmuir* **2015**, *31*, 7288-7295. (*SCI*; *ISI Impact Factor: 4.457*)
- 3) **Po-Wen Chung**;* Alexandre Charmot; Olayinka A. Olatunji-Ojo; Kathleen A. Durkin; Alexander Katz*, Hydrolysis Catalysis of Miscanthus Xylan to Xylose Using Weak-Acid Surface Sites. *ACS Catal.* **2014**, *4*, 302-310. (*SCI*; *Citations: 11*; *ISI Impact Factor: 9.312*; *selected as a Cover*)
- 4) **Po-Wen Chung***; Alexandre Charmot; Oz M. Gazit; Alexander Katz*, Glucan Adsorption on Mesoporous Carbon Nanoparticles: Effect of Chain Length and Internal Surface. *Langmuir* **2012**, *28*, 15222-15232. (*SCI*; *Citations: 21*; *ISI Impact Factor: 4.457*)
- 5) Anh The To, **Po-Wen Chung**; Alexander Katz*, Weak-Acid Sites Catalyze Crystalline-Cellulose Hydrolysis to Glucose in Water: Importance of Carbon Post-Synthetic Surface Functionalization. *Angew. Chem. Int. Ed.* **2015**, *54*, 11050-11053. (*SCI*; *ISI Impact Factor: 11.261*; *selected as a Frontispiece*)
- 6) Alexandre Charmot†; **Po-Wen Chung**†; Alexander Katz*, Catalytic Hydrolysis of Cellulose to Glucose Using Weak-Acid Surface Sites on Postsynthetically Modified Carbon. *ACS Sustainable Chem. Eng.* **2014**, *2* (12), 2866-2872. (*SCI*; †*The authors contribute equally.*; *ISI Impact Factor: 4.642*)
- 7) Tae-Wan Kim; Igor Slowing; **Po-Wen Chung**; Victor S.-Y. Lin, Ordered Mesoporous Polymer-Silica Hybrid Nanoparticles as Vehicles for Intracellular Controlled Release of Macromolecules. *ACS Nano*, **2011**, *5*, 360-366. (*SCI*; *ISI Impact Factor: 12.881*)
- 8) Tae-Wan Kim; **Po-Wen Chung**; Victor S.-Y. Lin, Facile Synthesis of Monodisperse Spherical MCM-48 Mesoporous Silica Nanoparticles with Controlled Particle Size. *Chem. Mater.* **2010**, *22*, 5093-5104. (*SCI*; *ISI Impact Factor: 8.354*)

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- 9) **Po-Wen Chung**, Rajeev Kumar, Marek Pruski and Victor S.-Y. Lin,* Temperature Responsive Solution Partition of Organic-Inorganic Hybrid Poly(N-isopropylacrylamide)-coated Mesoporous Silica Nanoparticles. *Advanced Functional Materials*, **2008**, *18*, 1390-1398. (ISI impact factor: 11.805; one of top five “most accessed” research article in 2008)

POSTER PRESENTATIONS

- 248th American Chemical Society Conference, San Francisco, CA, August 2014
- Gordon Research Conference for Catalysis, New London, NH, June 2014
- EBI retreat 2013
- EBI retreat 2011
- 234th American Chemical Society Conference, Boston, MA, August 2007

ORAL PRESENTATIONS

- *Invited Lecture for Chinese Academy of Science, Sep 2016*
- *Invited Lecture for Formosa Plastics Co., Sep 2016*
- *Invited Lecture for Cross-Strait Catalysis Symposium, July 2016*
- *Invited Lecture for International Symposium on Catalytic Conversions of Biomass, June 2016*
- *Invited Lecture for Department of Chemical Engineering, National Cheng Kung University, Mar 2016*
- *Invited Lecture for Department of Chemistry & Biochemistry, National Chung Cheng University, Jan 2016*
- *Symposium of Integrated Biomass Refinery by Precisely Designed Heterogeneous Catalysts; Pacifichem 2015, Oral Presentation, Dec 2015*
- *Invited Lecture for Department of Chemistry, National Tsing Hua University, Dec 2015*
- *Invited Lecture for Department of Applied Physics & Chemistry, University of Taipei, Nov 2015*
- *Open House Seminar, Academia Sinica, Oct 2015*
- *Invited Lecture for Material & Chemical Research Lab, Industrial Technology & Research Institute, Oct 2015*
- *Invited Lecture for R&D Center for Membrane Technology, Chung Yuan Christian University, Oct 2015*
- *Invited Lecture for Institute of Atomic & Molecular Sciences, Academia Sinica, Oct 2015*
- *Invited lecture for Department of Chemistry, National Sun Yat-sen University, Taiwan, Nov 2014*
- *Invited lecture for Department of Chemistry, National Chiao Tung University, Taiwan, Oct 2014*
- *Invited lecture for Department of Chemistry, National Taiwan University, Taiwan, Oct 2014*
- 248th American Chemical Society Conference, San Francisco, CA, August 2014
- *Invited lecture for Institute of Chemistry, Academia Sinica, Taiwan, July 2014*
- *Invited lecture for pre-symposium for 7th TOCAT, Hokkaido, June 2014*
- 7th TOCAT , Kyoto, Japan, June 2014

PO-WEN (CEDRIC) CHUNG, Ph. D.

- 247th American Chemical Society Conference, Dallas, TX, March 2014
- 13rd AIChE Conference, San Francisco, CA, October 2013
- 23rd North American Catalysis Society Meeting, KY, June 2013
- 11th AIChE Conference, Minneapolis, MN, October 2011
- 239th American Chemical Society Conference, San Francisco, CA, March 2010