

Yui Whei Chen-Yang

E-mail: yuiwhei@cycu.edu.tw

Ph.D.; State University of New York at Buffalo

Professor, Department of Chemistry

Solid Polymer Electrolytes, Aerogels, Flame Retardant Composites, Fuel Cells, Lithium Batteries, Dye Sensitive Solar Cells



◆ Research Interests

- ◆ Polymer Electrolytes and Electrodes for Lithium Batteries, Fuel Cells and Solar Cells
- ◆ Preparation of Silica-based Biomaterials
- ◆ Nano-Scaled Metal Oxide Materials
- ◆ Flame Retardant Composite Materials

◆ Selected Publications

- ◆ S. Y. Chen, C. C. Han, C. H. Tsai, J. Huang, **Y. W. Chen-Yang*** “Effect of morphological properties of ionic liquid-templated mesoporous anatase TiO₂ on performance of PEMFC with Nafion/TiO₂ composite membrane at elevated temperature and low relative humidity” J. Power Sources 171(2), 363-372 (2007)
- ◆ T.F. Hung, J. Huang, S.H. Bai, Y.J. Lai, H.J. Chuang, **Y.W. Chen-Yang*** “Highly Efficient Single-Layer Gas Diffusion Layers for the Proton Exchange Membrane Fuel Cell” J. Power Sources 184(1), 165-171 (2008)
- ◆ Yen Kuang Li, Den-Kai Yang, Yun-Chu Chen, Hung-Ju Su, Jui-Chuang Wu*, **Yui Whei Chen-Yang*** “A Novel Three-Dimensional Aerogel Biochip for Molecular Recognition of Nucleotide Acids” Acta Biomat. 6, 1462–1470 (2010)
- ◆ Y.T. Chen, Y.C. Chuang, C.H. Su, H.C. Yu, Y.W. Chen-Yang* "High discharge capacity solid composite polymer electrolyte lithium battery" J. Power Sources 196, 2802-2809 (2011)
- ◆ Cheng-Hsiu Tsai, Hung-Ju Lin, Huei-Mei Tsai, Jin-Tarng Hwang, Su-Ming Chang, Yui-Whei Chen-Yang* “Characterization and PEMFC application of a mesoporous sulfonated silica prepared from two silicon-precursors” Int. J. Hydrogen Energ. 36(16),9831-9841 (2011)
- ◆ Yen Kuang Li, Yun-Chu Chen, Kai-Jen Jiang, Jui-Chuang Wu*, Yui Whei Chen-Yang* “Three-Dimensional Arrayed Amino Aerogel Biochips for Molecular Recognition of Antigens Biomaterials” Biomaterials 32 7347-7354 (2011) doi:10.1016/j.biomaterials.-2011.06.069

◆ Recent Research Projects

- ◆ “Modification of Metal Oxide Aerogel and their application on cells use nanocomposites”, sponsored by National Science Council (August 2008 ~ July 2011)
- ◆ “Preparation and Properties of Three Dimensional Porous Scaffold Materials for Adhesion and Differentiation of Neural Stem Cells”, sponsored by National Science Council (August 2010 ~ July 2013)
- ◆ “Preparation of Poly(vinyl alcohol) Nanocomposites and their Application on Thermal Paper” sponsored by National Science Council and Li-Pai-Tai Company (November 2009 ~ October 2010)
- ◆ “Development of novel self-humidifying membrane electrode assembly and its application for proton exchange membrane fuel cell” sponsored by National Science Council and Ministry of Economic Affairs (January 2009 ~ December 2010)
- ◆ “The Preparation of Metal Oxide-based Ionogel Electrolytes and Their Application on Various Electric Cells. (August 2011 ~ July 2014)
- ◆ “Development of catalyst for hydrogen generation from aqueous ammonia-borane” (January 2010 ~ December 2011)