Supan Yodyingyong, PhD

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Academic backgrounds

University Qualifications

- Ph.D. in Science and Technology Education (2006 – 2010)
  Institute for Innovative Learning, Mahidol University, Thailand
- Diploma Degree in Teaching Profession (2005 – 2006)
  Maha Sarakham Rajabhat University, Thailand
- B.Sc. in Chemistry (2001– 2005)
  Faculty of Science, Maha Sarakham Rajabhat University, Thailand

Professional Trainings

- Research training with Prof. Guozhong Cao, Materials Science and Engineering Department, University of Washington, Seattle, Washington, USA (2009 – 2010)

Workings research topics

- Synthesis and applications of silica aerogel
- Processing, characterization, and applications of nanostructure materials
- Chemical Education

Scholarships

- Project for the Promotion of Talented Science and Mathematics Teachers (1998 – 2010)

Publications

International Journals

1. Prompawilai, A.; Yodyingyong S.; Triampo, D. Effects of TEOS on improving adhesion between polyurethane sponge/hydrophobic silica gel composite materials for oily wastewater treatment. *Science of Advanced Materials*. (Accepted)
2. Lati, W.; Triampo, D.; **Yodyingyong, S**. Exposure to Nanoscience and Nanotechnology Using Guided-Inquiry-Based Activities with Silica Aerogel To Promote High School Students' Motivation. *Journal of Chemical Education*. 2019, (In press) DOI: 10.1021/acs.jchemed.8b00435.
3. Prakulpawong, P.; Wiriyanantawong, J.; Pornpoonsawat, J.; **Yodyingyong, S**.; Triampo, D. Fabrication Study of Hydrophobic Polyurethane Sponge for Oil Absorption Application. *Key Engineering Materials. 2017, 751, 731-737*
4. Zhang, Q.; **Yodyingyong, S.**; Xi, J.; Myers, D.; Cao, G. Oxide Nanowires for Solar Cell Applications. *Nanoscale.* 2012, 4, 1436-1445

5. Xi, J.; Zhang, Q.; Xie, S.; **Yodyingyong, S**.; Park, K.; Sun, Y.; Li, J.; Cao, G. Fabrication of TiO_2 Aggregates by Electrospraying and Their Application in Dye-Sensitized Solar Cells. *Nanoscience and Nanotechnology Letters. 2011, 3, 690–696*
6. **Yodyingyong, S.**; Sae-Kung, C.; Panijpan, B.; Triampo, W.; Triampo, D., Physicochemical Properties of Nanoparticles Titania from Alcohol Burner Calcination. *The Chemical Society of Ethiopia* 2011, 25(2), 263-272
7. **Yodyingyong, S.**; Zhou, X.; Zhang, Q.; Triampo, D.; Xi, J.; Park, K.; Limketkai, B.; Cao, G., Enhanced photovoltaic performance of nanostructured hybrid solar cell using highly oriented TiO2 nanotubes. *The journal of physical chemistry C* 2010, 114 (49), 21851–21855
8. **Yodyingyong, S.**; Zhang, Q.; Park, K.; Dandeneau, C. S.; Zhou, X.; Triampo, D.; Cao, G., ZnO nanoparticles and nanowire array hybrid photoanodes for dye-sensitized solar cells. *Applied Physics Letters* 2010, 96(7), 073115-3
9. **Yodyingyong, S.**; Panijpan, B.; Triampo, W.; Triampo, D., An Inexpensive Furnace for Calcination: Simple TiO_2 Synthesis. *Journal of Chemical Education* 2009, 86(8), 950-952

Patents

1. **Supan Yodyingyong**. (Thailand Patent, April 2018). "A Method for Producing a Micron-Size Spherical Silica Aerogel"; Application Number: 1801002274
2. **Supan Yodyingyong**. (PCT, December 2017) " A Method for Producing a Micron-Size Spherical Silica Aerogel"; Application Number: PCT/TH2017/000086
3. **Supan Yodyingyong**. (Thailand Patent, November 2013). "Process for the Preparation of a Silica Aerogel"; Application Number: 1301006263

Conference Proceedings

1. ***Yodyingyong, S.**; Triampo, D.; Triampo; W. (2016, 6-7 October). PILOT-SCALE PREPARATION OF SILICA AEROGEL POWDER. Poster presented at the 3rd International Seminar on AEROGELS, Sophia Antipolis, Nice, France.*
2. ***Yodyingyong, S**.; Triampo, D.; Triampo, W.; Kanthang, P. (2014, 6-7 October). A Cost-Effective Synthesis of Silica Aerogel by Ambient Pressure Drying Route. Oral presented at 2nd the International Seminar on AEROGELS, Hamburg, Germany.*
3. ***Yodyingyong, S**.; Zhang, Q.; Park, K.; Dandeneau, C. S.; Zhou, X.; Triampo, D.; Cao, G. (2010, 21-25 March). ZnO composite photoelectrodes for dye-sensitized solar cells with high power conversion efficiency. Oral presented at the 239th ACS National Meeting and Exposition, San Francisco, USA.*

Awards and Distinctions:

- Gold Medal Award**,** the 13th Taipei International Invention Show & Technomart (INST 2017), "Method of Preparing a Spherical Silica Aerogel", 27 – 29 September, 2017 Taipei, Taiwan
- Invention and Innovation Award, Mahidol University (2016) "A Cost-Effective Synthesis of Silica Aerogel by Ambient Pressure Drying Route"
- 2015 Invention Award, National Research Council of Thailland (2015) "Silica Aerogel - the Material for the Future"