

4<sup>th</sup> International Symposium on  
**E**nergy **C**hallenges & **M**echanics  
- working on small scales

11-13 August 2015  
Aberdeen, Scotland, UK

### Chair and Speaker of Session 03

### **HYDROGEN GENERATION AND STORAGE**



Prof. Dr. Yao Zhang  
School of Materials Science and Engineering,  
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#### Education

2002, Ph. D, Dept. of Materials Science and Engineering, Zhejiang University, China  
1998, M. S., Institute of Metallic Materials and Technology, Dalian Maritime University, China  
1995, B. S., School of Materials Science and Engineering, Harbin Institute of Technology, China

#### Professional experience

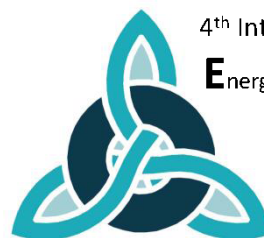
2013 to present, Professor, Southeast University, Nanjing, China

April to July of 2010, Visiting Scholar, Institute of Hydrogen Research (IRH), Université Du Québec À Trois-Rivières, Québec, Canada.

2004 to 2013, Associate Professor, Dalian Institute of Chemical Physics (DICP), Chinese Academy of Sciences, Dalian, China

2002 to 2004, Post-doctor fellow, Energy Electronics Institute, National Institute of Advanced Industry of Science and Technology (AIST) in Tsukuba, Japan





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### Representative papers in recent years

1. Yao Zhang\*, Zhitao Xiong, Hujun Cao, Guotao Wu, and Ping Chen\*, The enhanced hydrogen storage performance of (Mg-B-N-H)-doped Mg(NH<sub>2</sub>)<sub>2</sub>-2LiH system, International Journal of Hydrogen Energy, 39 (2014) 3710-3718
2. Yao Zhang\*, Francois Morin, Jacques Huot, The Effects of Ti-based additives on the Kinetics and Reactions in LiH/MgB<sub>2</sub> Hydrogen Storage System, International Journal of Hydrogen Energy, 36 (2011) 5425-5430.
3. Yao Zhang\*, Qifeng Tian, The reactions in LiBH<sub>4</sub>-NaNH<sub>2</sub> hydrogen storage system, International Journal of Hydrogen Energy, 36 (2011) 9733-9742.
4. Yao Zhang\*, Qifeng Tian, Jian Zhang, Shusheng Liu, Lixian Sun, The Dehydrogenation Reactions and Kinetics of 2LiBH<sub>4</sub>-Al Composite, Journal of Physical Chemistry C, 113 (2009) 18424-18430.
5. Yao Zhang\*, Qifeng Tian, Hailiang Chu, Jian Zhang, Lixian Sun, Juncai Sun, Zhongsheng Wen, Hydrogen De/Re-sorption Properties of LiBH<sub>4</sub>-MgH<sub>2</sub>-Al System, Journal of Physical Chemistry C, 113 (2009) 21964 - 21969.
6. Yao Zhang\*, Qi-Feng Tian, Shu-Sheng Liu, Li-Xian Sun, The destabilization mechanism and de/re-hydrogenation kinetics of MgH<sub>2</sub>-LiAlH<sub>4</sub> hydrogen storage system, Journal of Power Sources, 185 (2008) 1514-1518.
7. Yao Zhang\*, Wan-Sheng Zhang, Mei-Qiang Fan, Shu-Sheng Liu, Hai-Liang Chu, Yan-Hua Zhang, Xiu-Ying Gao, Li-Xian Sun, Enhanced hydrogen storage performance of LiBH<sub>4</sub>-SiO<sub>2</sub>-TiF<sub>3</sub> composite, Journal of Physical Chemistry C, 112 (2008) 4005-4010.
8. Yao Zhang\*, Wan-Sheng Zhang, Ai-Qin Wang, Li-Xian Sun, Mei-Qiang Fan, Hai-Liang Chu, Jun-Cai Sun and Tao Zhang, LiBH<sub>4</sub> nanoparticles supported by disordered mesoporous carbon: Hydrogen storage performances and destabilization mechanisms, International Journal of Hydrogen Energy, 32 (2007) 3976-3980



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