JING XU

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Education

Jun. 2011 - Sep. 2014	Ph. D., Materials Science and Engineering University of California, San Diego (UCSD)
Aug. 2009 - Jun. 2011	M. S., Materials Science University of Southern California (USC)
Sep. 2005 - Jun. 2009	B. S., Materials Science and Engineering University of Science and Technology of China (USTC)

Research Experience

Oct. 2014 - Present	Postdoctoral Fellow, Lawrence Berkeley National Laboratory (LBL) Developing advanced electrode materials for Li-ion batteries by combinatorial synthesis and high throughput characterization
Jun. 2011 - Sep. 2014	Research assistant, University of California, San Diego (UCSD) Designing and diagnosing Li-ion and Na-ion batteries by integrating synchrotron scattering techniques, first principles calculation, and electrochemical analysis
Aug. 2009 - Jun. 2011	Research assistant, University of Southern California (USC) Optimizing Si-based anode materials for Li-ion batteries; exploring Li-S system as next-generation cathode materials for Li-ion batteries
Sep. 2007 - Jun. 2009	Undergraduate research assistant, University of Science and Technology of China (USTC) Improving the cyclability of Si as anode for Li-ion batteries; determining the diffusion coefficient for electrode materials

Teaching Experience

1. Teaching assistant, UCSD, Winter quarter 2014
   Undergraduate class, "Characterization of Nanoengineering Systems", 107 students
2. Mentor two junior Ph. D. students and one undergraduate student in the group at UCSD

Honors and Awards

1. Student Travel Award, the electrochemical society, 2013
2. Chevron Fellowship, USC, 2009 - 2011
3. Outstanding Student Scholarship, USTC, 2008.
4. Outstanding Student Scholarship, USTC, 2006.
5. Outstanding Student Leadership, USTC, 2006.

Selected Publications

1. **Xu, J.**; Ma, C.; Balasubramanian, M.; Meng, Y. S., Understanding $Na_2Ti_3O_7$ as an ultra-low voltage material for a Na-ion battery, *Chemical Communications*, 2014, 50, 12564-12567.

2. Qu, B.; Ma, C.; Ji, G.; Xu, C.; **Xu, J.**; Meng, Y. S.; Wang, T.; Lee, J. Y., Layered SnS_2-reduced graphene oxide composite – a high-capacity, high-rate, and long-cycle life sodium-ion battery anode material. *Advanced Materials*, 2014, 23, 3854-3859.
3. **Xu, J.**; Lee, D. H.; Clement, R. J.; Yu, X.; Leskes, M.; Pell, A. J.; Pintacuda, G.; Yang, X.-Q.; Grey, C. P.; Meng, Y. S., Identifying the critical role of Li substituition in P2-$Na_x[Li_yNi_zMn_{1-y-z}]O_2$ ($0 < x, y, z < 1$) intercalation cathode materials for high energy Na-ion batteries. *Chemistry of Materials* 2014, 26, 1260-1269.
4. **Xu, J.**; Lee, D. H.; Meng, Y. S., Recent advances in sodium intercalation positive electrode materials for sodium ion batteries, *Functional Materials Letters* 2013, 6, 1.
5. Rong, J. P.; Fang, X.; Ge, M. Y.; Chen, H. T.; **Xu, J.**; Zhou, C. W., Coaxial Si / anodic titanium oxide / Si nanotubes arrays for lithium-ion battery anodes. *Nano Research* 2013, 6, 182-190.
6. Lee, D. H.; **Xu, J.**; Meng, Y. S., An advanced cathode for Na-ion batteries with high rate and excellent structural stability. *Physical Chemistry Chemical Physics* 2013, 15, 9, 3304-3312. **(Equally contributed first authors)**
7. Chen, H. T.; **Xu, J.**; Chen, P. C.; Fang, X.; Qiu, J.; Fu, Y.; Zhou, C. W., Bulk synthesis of crystalline and crystalline core/amorphous shell silicon nanowires and their application for energy storage. *ACS Nano* 2011, 5, 8383-8390. **(Equally contributed first authors)**
8. Chen, P. C.; **Xu, J.**; Chen, H. T.; Zhou, C. W., Hybrid silicon-carbon nanostructured composites as superior anodes for lithium ion batteries. *Nano Research* 2011, 4, 290-296. **(Equally contributed first authors)**
9. Ding, N.; **Xu, J.**; Yao, Y. X.; Wegner, G.; Lieberwirth, I.; Chen, C. H., Improvement of cyclability of Si as anode for Li-ion batteries. *Journal of Power Sources* 2009, 192, 644-651.
10. Ding, N.; **Xu, J.**; Yao, Y. X.; Wegner, G.; Fang, X.; Chen, C. H.; Lieberwirth, I., Determination of the diffusion coefficient of lithium ions in nano-Si. *Solid State Ionics* 2009, 180, 222-225.
11. Ding, N.; Fang, X.; **Xu, J.**; Yao, Y. X.; Zhu, J.; Chen, C. H., Performance of lithium-ion cells with a gamma-ray radiated electrolyte. *Journal of Applied Electrochemistry* 2009, 39, 995-1001.
12. Ding, N.; Feng, X. Y.; Liu, S. H.; **Xu, J.**; Fang, X.; Lieberwirth, I.; Chen, C. H., High capacity and excellent cyclability of vanadium (IV) oxide in lithium battery applications. *Electrochemistry Communications* 2009, 11, 538-541.

Selected Presentations

1. "Investigating and designing novel electrode materials for Na-ion batteries", MRS Spring Meeting (2014), San Francisco, USA
2. "Extending the application of P2-type cathodes in Na-ion batteries", 223rd ECS Meeting (2013), Toronto, Canada
3. "New energy storage with high power and low cost: a combination of computational and experimental study of cathode materials for Na-ion batteires", 37th ICACC (American Ceramic Society, 2013), Daytona Beach, USA
4. "Identifying structural and electrochemical properties of layered $Na_x[Ni_yMn_{1-y}]O_2$ ($0 < x, y < 1$) cathode materials in Na-ion batteries", Gordon Research Seminar (2012), Ventura, USA
5. "Hybrid silicon-carbon nanostructured composites as superior anodes of Lithium ion batteries", MRS Spring Meeting (2011), San Francisco, USA

Professional Memberships

Electrochemical Society; Materials Research Society; American Ceramic Society

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