

Xuehang Wang, PhD

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Current Residence: United State of America

Residence: permanent resident of Norway and P. R. China.

Working Background

- *March 2017-now*, *Postdoctoral researcher*
Drexel University (Philadelphia, US) in Prof. Yury Gogotsi group
- *September 2016-January 2017*, *Temporary researcher in chemical Engineering department*
Norwegian University of Science and Technology (Trondheim, Norway) in Catalyst group

Educational Background

- *March 2013-September 2016*, *PhD candidate of Chemical Engineering*
Norwegian University of Science and Technology (NTNU) under supervision of Prof. De Chen and Dr. Edel Sheridan
- *2010-2012*, *Master of Chemical Engineering*
East China University of Science and Technology (ECUST) GPA (major 3.5/4.0)
- *2006-2010*, *Bachelor of Chemical Engineering and Technology*
East China University of Science and Technology (ECUST) GPA (major 3.5/4.0, top 5%)

Awards

Academic excellence award, ECUST	2007-2010 (4-year continuously awarded in ECUST)
Excellent bachelor thesis award, ECUST	2010
Full scholarship for master degree, ECUST	2010-2012
Best student oral presentation, State-Key Laboratory of Chemical Engineering, ECUST	2012
National excellent PhD student studying abroad (China)	2017 (500 students around world each year)

Skills

Lab skills

- Experienced with fabricating electrical electrodes and cells (supercapacitor and batteries) in glovebox and performing electrical test equipment, including battery cyclers, potentiostats and electrochemical impedance spectroscopy.
- Skilled for materials characterization process and experienced with data analysis: BET, SEM, Raman, NMR, TGA.
- Familiar with synthesizing process of various carbon materials and polymers, skilled to perform particular synthesizing equipment.

Programing skills

- Skilled in Python;
- Familiar with Matlab and C++

Languages: English (good written/verbal communications), Chinese (native), Japanese (Ability test N2), Norwegian (level 2)

Research Experience

- 2013.3-2016.9
- **Department of Chemical Engineering, NTNU**
Supervisor: Prof. De Chen
Co-supervisor: Dr. Edel Sheridan (SINTEF)
Topic: *Polymer-derived carbon material for electrochemical devices applications.*
Research interests:
 - Fundamental study of carbon-ionic liquid supercapacitors
 - Electrode material synthesis for supercapacitor, Li-ion battery and Mg-ion battery
 - Fundamental study of ionic liquid electrolyte
- 2010.9-2012.11
- **State-Key Laboratory of Chemical Engineering, ECUST**
Supervisor: Prof. Xinggui Zhou
Topic: *Deep Hydrodesulfurization catalyst of FCC gasoline-kinetics*
- 2007.12-2010.6
- **State-Key Laboratory of Chemical Engineering, ECUST**
Supervisor: Prof. Xinggui Zhou
Topic: *Ammonia deposition on bi-metal catalyst-Preparation method of bi-metal catalyst*
Supervisor: Prof. Yian Zhu
Topic: *A DFT calculation study on the relationship between structure and stability of carbon nanotubes*

Publications

Publications

1. [Xuehang Wang](#), Haitao Zhou, Edel Sheridan, John Charles Walmsley, Dingding Ren, De Chen. Geometrically-confined favourable ion packing for high gravimetric capacitance in carbon-ionic liquid supercapacitor. **Energy & Environmental Science**, 2016, 9: 232-239.
2. [Xuehang Wang](#), Haitao Zhou, Fengliu Lou, Yahao Li, Marthe Emelie Melandsø Buan, Xuezhi Duan, John Charles Walmsley, Edel Sheridan and De Chen. Boosted supercapacitive energy with high rate capability in ionic liquid on a densely-knitted carbon framework with hierarchical pore structure. **ChemSusChem**, 2016, DOI: 10.1002/cssc.201600779.
3. [Xuehang Wang](#), Yahao Li, Marthe Emelie Melandsø Buan, De Chen. Pine derived mesopore-rich carbon for supercapacitor with non-aqueous electrolyte. **In revision.**
4. [Xuehang Wang](#), et al. Ionic interaction assisted self-ion filtration in ionic salt-liquid mixture for high energy supercapacitor. In final stage before submission.
5. Haitao Zhou, [Xuehang Wang](#), Edel Sheridan, De Chen. Boost the specific energy and cycling stability of dual-manganese oxides-based Li-ion full cells by preformation of SEI layer on 3D binder-free anodes with and without Li metal. **ChemSusChem**. 2015, 8(8):1368–1380.
6. Haitao Zhou, [Xuehang Wang](#), De Chen. Li-Metal-Free Prelithiation of Si-Based Negative Electrodes for Full Li-Ion Batteries. **ChemSusChem**. 2015, 8(16): 2737-2744.
7. Haitao Zhou, [Xuehang Wang](#), Edel Sheridan, Hongquan Gao, Juan Du, Jianhong Yang, and De Chen. Boosting the energy density of 3D dual-manganese oxides-based Li-ion superbattery by controlled mass ratio and charge injection. **Journal of Electrochemical Society**. 2016, 163(13): A2618-A2622.

8. Hui Yang, Xuehang Wang, Xuezhi Duan, Xiangchen Yuan, Xinggui Zhou. Kinetics of Thiophene and Benzothiophene Hydrodesulfurization over Co-Mo/ γ -Al₂O₃ Catalyst. **Chemical reaction engineering and technology** (Chinese), 2015, 31(5): 400-406.

Presentations

1. Oral presentation. 229th ECS meeting, San Diego, US, 2016
2. Oral presentation. 10th Nano@NTNU, Trondheim, Norway, 2015.
3. Poster. CESEP'15, Poznan, Poland, 2015.
4. Poster. ChemEner, Berlin, German, 2015.
5. Poster. 6th International Symposium on Carbon for Catalyst, Trondheim, Norway, 2014.
6. Poster. 9th NTNU NanoLab Symposium, Trondheim, Norway 2014.
7. Oral presentation. 8th NTNU NanoLab Symposium, Trondheim, Norway 2013.

Other Experience

2013-2015	NTNU Position: teaching assistant of course "Chemical reaction engineering" for three semesters
2012.5-2012.9	Company: Dow Corning China (China-Shanghai) Position: Purchasing department Intern
2011.8-2011.9	Company: Mitsui Chemical (Japan-Osaka) Position: International Engineering Intern
2011.4-2011.7	Company: GE China (China-Shanghai) Position: Purchasing department Intern
2010.9-2011.4	Company: Grace China (China-Shanghai) Position: Purchasing department Intern