Yang, Jieun

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EDUCATION

2009 ~ 2015.02 Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea, Prospective Ph. D. ***Major*: *Department of Energy Engineering*** (**Advisor:** Prof. Hyeon Suk Shin)

2004 ~ 2009 Kyung Hee University, Seoul, Korea, Bachelor ***Major* : *Chemistry***

FELLOWSHIP

Elite Fellowship for Graduate students, UNIST, Korea 2011~present

RESEARCH INTEREST

- Synthesis, characterization and application of 2D materials (Graphene, h-BN, MoS_2 etc.)
- Synthesis of 2D hybrid materials for energy application
- Fabrication of electrical and optoelectrical devices

Publications

1. **J. Yang** and H. S. Shin*, "Recent Advances in Layered Transition Metal Dichalcogenides for Hydrogen Evolution Reaction", *J. Mater. Chem. A.* **2014**, *2*, 5979.
2. **J. Yang**, D. Voiry, S. J. Ahn, D. Kang, A. Y. Kim, M. Chhowalla*, and H. S. Shin*, "Two Dimensional Hybrid Nanosheets of Tungsten Disulfide and Reduced Graphene Oxide as Catalysts for Enhanced Hydrogen Evolution Reaction", *Angew. Chem. Int. Ed*. **2013**, *52*, 13751.
3. **J. Yang**, J.-W. Kim, H. S. Shin*, "Facile method for rGO FET: selective adsorption of rGO on SAM-treated gold electrode by electrostatic attraction", *Adv. Mater.* **2012**.24.2299**.**
4. **J. Yang**, M. Heo, H. J. Lee, S.-M. Park, J. Y. Kim, H. S. Shin*, "Reduced graphene oxide (rGO)-wrapped fullerene (C_{60}) wires" *ACS Nano* **2011**, *5*, 8365.
5. **J. Yang**, H, Lim, H. C. Choi* and H. S. Shin*, "Wavelength-selective silencing of photocurrent in Au-coated C_{60} wire hybrid" *Chem. Commun*. **2010**, *46*, 2575.
6. S.-Y. Bae, I.-Y. Jeon, **J. Yang**, N. Park, H. S. Shin, S. Park, R. S. Ruoff, L. Dai,

J.-B. Baek*, "Large-Area Graphene Films by Simple Solution Casting of Edge-Selectively Functionalized Graphite", *ACS Nano* **2011**, *5*, 4974.

7. S. J. Ahn, **J. Yang**, K. W. Lim, H. S. Shin***,*** "Selective Formation of Thickness Controlled Fullerene (C_{60}) Disk by Vapor-Solid Process", *J. Crystal Growth* **2013,** *363*, 141.
8. C. Rout, B.-H. Kim, X. Xu, **J. Yang**, H. Y. Jeong, D. Odkhuu, N. Park, J. Cho*, and H. S. Shin***,** "Synthesis and Characterization of Patronite Form of Vanadium Sulfide on Graphitic Layer", *J. Am. Chem. Soc*., **2013**, *135*, 8720.
9. X. Xu, C. Rout, **J. Yang**, R. Cao, P. Oh, H. S. Shin***,** and J. Cho*, "Freeze-dried WS_2 composites with low content of graphene as high-rate lihtium storage materials", *J. Mater. Chem. A.* 2013, *1*, 14548.
10. K. W. Lim, J.-I. Lee, **J. Yang**, Y.-K. Kim, H. Y. Jeong, S. Park*, and H. S. Shin***,** "Catalyst-free synthesis of Si-SiOx nanowire anodes for high-rate and hig-capacity lithium-ion batteries", *ACS Appl. Mater. Interfaces***, 2014,** *6***,** 6340.
11. P. Mohan**, J. Yang**, A. Jena and H. S. Shin*, "VS_2/rGO hybrid nanosheets prepared by annealing of VS_4/rGO", *J. Solid State Chem.* DOI:10.1016/j.jssc.2014.06.031.

OVERSEAS EXPERIENCE

July 2012 – September 2012	Rutgers University, USA (join in Prof. Manish Chhowalla)
July 2011 – August 2011	Georgia Tech, USA World Class University (WCU) program (join in Prof. Zhong Lin Wang)

Skills

Raman spectroscopy

FT-IR spectroscopy

X-ray Photoelectron Spectroscopy(XPS)

Ultraviolet photoelectron Spectroscopy(UPS)

UV-Visible spectrometry

Fluorometer

X-ray Diffraction(XRD)

Scanning electron microscope(SEM)

Atomic force microscope(AFM)

Cyclic voltammetry(CV)

Photolithography

References

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