

Curriculum Vitae

Dongbin Shin

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Personal Information

First Name : Dongbin

Family name : Shin

Birthday : Aug. 13, 1991

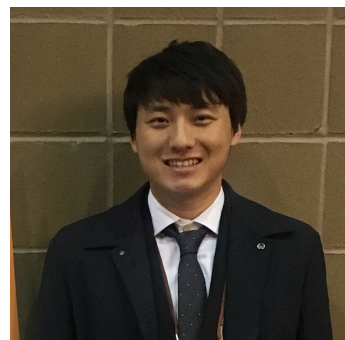
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Education

2013.3–present Department of Physics, UNIST

Master & Doctoral training : Density Functional Theory

Advisor : Prof. Noejung Park

Nine bridge fellowship (2014.6~2017.5)

2009.3–2013.2 School of Electrical & Computer Engineering, UNIST

Bachelor : Device Physics and Electrical Engineering

Awards and Scholarship

2014.6~2017.5 : Nine bridge fellowship, Ulsan National Institute of Science and Technology

2015. 10. 22. : Best oral presentation in KPS 2015 fall conference, Korea Physics Society

2016. 4. 20. : Best oral presentation in KPS 2016 spring conference, Korea Physics Society

2016. 10. 21. : Best oral presentation in KPS 2016 fall conference, Korea Physics Society

Research Interests

- Development of Real-time propagation Time-Dependent Density Functional Theory
- First-principles calculation of electronic structure; Condensed Matter and Surface physics
- Phonon, Electron-Phonon Interaction, Spin-Phonon coupling, DFT+U

Publications

1. Dongbin Shin, Hosub Jin, Noejung Park, Phonon-derived ultrafast relaxation of spin-valley polarized states in MoS₂, arXiv:1704.00921 (2017).
 2. Donghun Kim, Byung Chul Yeo, **Dongbin Shin**, Heechae Choi, Seungchul Kim, Noejung Park, Sang Soo Han, Dissimilar anisotropy of electron versus hole bulk transport in anatase TiO₂: Implications for photocatalysis, ***Physical Review B*** 95, 045209 (2016).
 3. Javeed Mahmood, Eun Kwang Lee, Minbok Jung, **Dongbin Shin**, Hyun-Jung Choi, Jeong-Min Seo, Sun-Min Jung, Dongwook Kim, Myoung Soo Lah, Noejung Park, Hyung-Joon Shin, Joon Hak Oh, Jong-Beom Baek, Two-dimensional polyaniline from carbonized organic single crystals in solid state, ***Proceedings of National Academy of Sciences*** 113, 7414 (2016).
 4. Sun-Min Jung, Dongwook Kim, **Dongbin Shin**, Javeed Mahmood, Noejung Park, Myoung Soo Lah, Hu Young Jeong, Jong-Beam Baek, Unusually stable triazine-based superstructure, ***Angewandte Chemie*** 128, 1 (2016).
 5. Heechae Choi, **Dongbin Shin**, Byung Chul Yeo, Taeseup Song, Sang Soo Han, Noejung Park, Seungchul Kim, Simultaneously controllable doping sites and the activity of a W-N co-doped TiO₂ photocatalyst, ***ACS catalysis*** 6, 2745 (2016).
 6. Dorj Odkhuu, Sonny H. Rhim, **Dongbin Shin**, Noejung Park, La Displacement Driven Double-Exchange Like Mediation in Titanium d_{xy} Ferromagnetism at the LaAlO₃/SrTiO₃, ***Journal of the Physical Society of Japan*** 85, 043702 (2016).
 7. **Dongbin Shin**, Geunsik Lee, Youshiyuki Miyamoto, and Noejung Park, Real-time
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- propagation via time-dependent density-functional plus Hubbard U potential for non-adiabatic dynamics involving long-range charge transfer, *Journal of Chemical Theory and Computation* 12, 201 (2016).
8. Masood Yousaf, **Dongbin Shin**, Rodney Ruoff, and Noejung Park, Selective Tuning of a Particular Chemical Reaction on Surfaces Through Electrical Resonance: An Ab Initio Molecular Dynamics Study, *Journal of Physical Chemistry Letters* 6, 5094 (2015).
 9. **Dongbin Shin**, Ranjit Thapa, Noejung Park, An oxygen reduction catalytic process through superoxo adsorption states on n-type doped h-BN: a first-principles study, *Current Applied Physics* 15, 727 (2015).
 10. Javeed Mahmood, Eun Kwang Lee, Minbok Jung, **Dongbin Shin**, In-Yup Jeon, Sun-Min Jung, Hyun-Jung Choi, Jeong-Min Seo, Seo-Yoon Bae, So-Dam Sohn, Noejung Park, Joon Hak Oh, Hyung-Joon Shin, and Jong-Beom Baek, Nitrogenated holey two-dimensional structures, *Nature Communications* 6, 6486 (2015).
 11. Sun-Min Jung, Eun Kwang Lee, Min Choi, **Dongbin Shin**, In-Yup Jeon, Jeong-Min Seo, Hu Young Jeong, Noejung Park, Joon Hak Oh, Jong-Beom Baek, Direct Solvothermal Synthesis of B/N-Doped Graphene, *Angewandte Chemie International Edition* 53, 2398 (2014).
 12. **Dongbin Shin**, S. Sinthika, Min Choi, Ranjit Thapa, and Noejung Park, Ab Initio Study of Thin Oxide–Metal Overlayers as an Inverse Catalytic System for Dioxygen Reduction and Enhanced CO Tolerance, *ACS catalysis* 4, 4074 (2014).
 13. Minbok Jung, **Dongbin Shin**, So-Dam Sohn, Soon-Yong Kwon, Noejung Park and Hyung-Joon Shin, Atomically resolved orientational ordering of C₆₀ molecules on epitaxial graphene on Cu(111), *Nanoscale*, 6, 11835 (2014).
 14. Gyutae Nam, Joohyuk Park, Sun Tai Kim, **Dongbin Shin**, Noejung Park, Youngsik Kim, Jang-Soo Lee, Jaephil Cho, Metal-Free Ketjenblack Incorporated Nitrogen-Doped Carbon Sheets Derived from Gelatin as Oxygen Reduction Catalysts, *Nano Letters* 14, 1870 (2014).
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15. Dorj Odkhuu, **Dongbin Shin**, Rodney S. Ruoff and Noejung Park, Conversion of multilayer graphene into continuous ultrathin sp^3 -bonded carbon films on metal surfaces, ***Scientific Reports*** 3, 3276 (2013).
 16. In-Yup Jeon, Hyun-Jung Choi, Myung Jong Ju, In Taek Choi, Kimin Lim, Jaejung Ko, Hwan Kyu Kim, Jae Cheon Kim, Jae-Joon Lee, **Dongbin Shin**, Sun-Min Jung, Jeong-Min Seo, Min-Jung Kim, Noejung Park, Liming Dai and Jong-Beom Baek, Direct nitrogen fixation at the edges of graphene nanoplatelets as efficient electrocatalysts for energy conversion, ***Scientific Reports*** 3, 2250 (2013).
 17. Dong Wook Chang, Eun Kwang Lee, Eun Yeob Park, Hojeong Yu, Hyun-Jung Choi, In-Yup Jeon, Gyung-Joo Sohn, **Dongbin Shin**, Noejung Park, Joon Hak Oh, Liming Dai and Jong-Beom Baek, Nitrogen-Doped Graphene Nanoplatelets from Simple Solution Edge-Functionalization for n-Type Field-Effect Transistors, ***Journal of the American Chemical Society*** 135, 8981 (2013).
 18. **Dongbin Shin**, Hyun Jung, Sang Soo Han, Cheol Ho Choi, Hosik Lee and Noejung Park, The Nature of Mobile Fluoride Acceptor Anions on sp^2 Carbon Surfaces, ***Chemical Physics Letters*** 570, 10 (2013).

Conference & Experience

- 2013.03 : Quantum ESPRESSO Developer Training
- 2013.04.24 : Oral presentation, Korea Physics Society, 89th spring conference
- 2013.12 : Advanced Quantum ESPRESSO Developer Training
- 2015.04.23 : Oral presentation, Korea Physics Society, 2015 spring conference
- 2015.10.22 : Oral presentation, Korea Physics Society, 2015 fall conference (awarded)
- 2016.04.20 : Oral presentation, Korea Physics Society, 2016 spring conference (awarded)
- 2016.04.22 : Oral presentation, Korea Physics Society, 2016 spring conference
- 2016.10.21 : Oral presentation, Korea Physics Society, 2016 fall conference (awarded)
- 2017.03.16 : Oral presentation, American Physics Society, 2017 march meeting

References

- Noejung Park (noejung@unist.ac.kr)

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Ulsan, 689-798, Republic of Korea

Etc

Korean History Exam, 1st grade.