Bumseop Kim

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EDUCATION

Mar. 2018 ~ Present	**Ulsan National Institute of Science and Technology** Department of Physics *Integrated Master and Ph.D. Course* *Advisor: Noejung Park* *Ph.D. Student* GPA: 4.1 / 4.3	Ulsan, Korea
Mar. 2014 ~ Feb. 2018	**Ulsan National Institute of Science and Technology** Department of Physics *B.S. in Physics* GPA: 3.85 / 4.3	Ulsan, Korea

RESEARCH INTERESTS

- Density Functional Theory (DFT) and time-dependent DFT (TDDFT)
- Optoelectronic properties related to Bulk Photovoltaic Effect and Shift Current

PUBLICATIONS (SCIE/ESCI)

1. Jeongwoo Kim, Kyoung-Whan Kim, Bumseop Kim, Chang-Jong Kang, Dongbin Shin, Sang-Hoon Lee, Byoung-Chul Min, Noejung Park, "Exploitable magnetic anisotropy of the two-dimensional magnet CrI3", *Nano Lett.*, **20**, 2, 929-935 (2019)
2. Bumseop Kim, Jeongwoo Kim, Dongbin Shin, Min Choi, Junhee Lee, Noejung Park, "Releasing the hidden shift current in the TTF-CA organic molecular solid via symmetry lowering", *npj Comput. Mater.*, **6**, 6 (2020)
3. Bumseop Kim,Jeongwoo Kim,Noejung Park, "First-principles identification of the charge-shifting mechanism and ferroelectricity in hybrid halide perovskites", *Sci. Rep.,* **10**, 19365 (2020)

CONFERENCES

1. 2019 spring KPS meetings Oral presentation
2. 2019 KIAS Electronic structure calculation workshop Poster presentation (Awards)
3. 2020 spring KPS meetings Oral presentation
4. 2021 spring KPS meetings Oral presentation (Awards)

AWARDS AND HONORS

- Graduation with honors: magna cum laude, UNIST, Korea (Feb. 2018)
- 우수포스터발표상, KIAS, Korea (Jul. 2019)
- 우수발표상, 한국물리학회, Korea (Apr. 2021)

SKILLS AND TECHNIQUES

- Tight-binding calculation of shift current and BPVE for ferroelectric systems
- real-time dynamics of time-dependent density functional calculation
- Code development of Quantum Espresso and Wannier90