

CURRICULUM VITAE

NGUYEN THI HAN (1984/07/30)

阮氏欣 (Nickname: Xin Xin)

Address: Department of Physics, National Cheng Kung University, Taiwan (2018 to present)

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EDUCATION

Master (2018-2020)

Department of Physics, National Cheng Kung University, Taiwan.

GPA: 85.6/100

Master (2008-2010)

Department of chemistry, Thai Nguyen university of education, Thai Nguyen University, Viet Nam.

GPA: 8.0/10

Bachelor (2003-2007)

Department of chemistry, Thai Nguyen University of Education, Thai Nguyen University, Viet Nam.

GPA: 7.28/10

MASTER'S THESIS (2018-2020)

“Diversified properties in 3D ternary oxide compound: Li_2SiO_3 ”

RESEARCH INTERESTS

Investigations electronic, optical properties of novel materials through simulations and various Computational Physics techniques.

RESEARCH EXPERIENCE

Advisor: Distinguished Professor Ming Fa-Lin

Department of Physics, National Cheng Kung University (NCKU)

Field of study: - Investigated electronic and optical properties of solid-state electrolyte in Lithium ion batteries, solar cell and semiconductor materials by using first-principle calculations (based on VASP package).

PUBLICATIONS

1. **Nguyen Thi Han**, Vo Khuong Dien, Ngoc Thanh Thuy Tran, Duy Khanh Nguyen, Wu-Pei Su, and Ming-Fa Lin. “First-principles studies of electronic properties in Lithium metasilicate (Li_2SiO_3). *RSC Adv*, 2020,**10**,24721.
2. **Nguyen Thi Han**, Vo Khuong Dien, Ngoc Thanh Thuy Tran, Duy Khanh Nguyen, Ming Fa-Lin 2021. “Diversified properties in 3D ternary oxide compound: Li_2SiO_3 ”. **Published on CRC press**. DOI<https://doi.org/10.1201/9781003138327> (*Book chapter*)
3. **Nguyen Thi Han**, Vo Khuong Dien, Ming-Fa Lin. ‘Excitonic Effects in the Optical Spectra of Lithium metasilicate (Li_2SiO_3)’ **Under review at Scientific report (arXiv:2010.11621)**
4. **Nguyen Thi Han**, Vo Khuong Dien, Ming-Fa Lin. “Excitons and Optical Spectrum of CsGeI_3 perovskite”. (in Preparation)
5. Vo Khuong Dien, **Nguyen Thi Han**, Thi Dieu Hien Nguyen, Thi My Duyen Huynh, Hai Duong Pham, Ming-Fa Lin. “Geometric and electronic properties of Li_2GeO_3 compound”. *Frontiers in Materials*, 2020, 7, 288.

6. Vo Khuong Dien, Hai Duong Pham, Ngoc Thanh Thuy Tran, **Nguyen Thi Han**, Thi My Duyen Huynh, Thi Dieu Hien Nguyen and Ming Fa-Lin. “Orbital-hybridization-created optical excitations in Li_2GeO_3 ” **Accepted at Scientific Reports**
7. Vo Khuong Dien, **Nguyen Thi Han**, Ming-Fa Lin. “Spin polarization and orbital hybridization induced optical excitations of LiFeO_2 ” (Book chapter) *under review at IOP ebooks*.
8. Vo Khuong Dien, **Nguyen Thi Han**, Ming-Fa Lin. “**Excitonic and spin-orbit coupling effects on optical properties of Plumbene adsorption Hydrogen**” (Book chapter) *under review at IOP ebooks*.
9. Thi Dieu Hien Nguyen, Shih-Yang Lin, Hsien-Ching Chung, Wei-Bang Li, Ngoc Thanh Thuy Tran, **Thi Han Nguyen**, Hsin-Yi Liu, Hai Duong Pham, Ming-Fa Lin. “Rich and unique properties of cathode/electrolyte/anode materials in lithium-/aluminum-/iron-based batteries” (BOOK) **under review at IOP ebooks**
10. Hoang Thi Chien, Le Huy Hoang, **Nguyen Thi Han**, “Forming and practicing the skills of using drawings for teachers in chemistry teaching”, *6th National Chemistry Conference, Ha Noi, Viet Nam, 2013, p.150-156*.
11. Nguyen Dang Duc, Duong Nghia Bang, Nguyen To Giang, **Nguyen Thi Han**, “Determination of Pb content in some green vegetables in Dai Tu district, Thai Nguyen province by using flame atomic absorption spectrometry (FAAS)”, *Vietnamese Journal of Chemistry and Applied Chemistry, 2015, Vol. 4 (32), Page66-69*.
12. Tran Quoc Toan, **Nguyen Thi Han**, Nguyen Ngoc Linh, Tran Thi Thuy Duong, Tran Van Nam, “Study on the interaction between polyvinyl alcohol with urea, Binh Thuan’s bentonite and the effect of polyvinyl alcohol on the strength of urea pellets”, *Vietnamese Journal of Agricultural Science and Technology, 2017, No. 1 (I), pp. 131-137*.

CONFERENCE PRESENTATIONS

1. **Thi Han Nguyen**, Ming Fa-Lin “Diversified properties in 3D ternary oxide compound: Li_2SiO_3 ” *The 1st NCKU-TDTU Joint International Symposium on Materials Science - ISMS 2019. December 2019, Vietnam.*
2. Vo Khuong Dien, **Nguyen Thi Han**, Ming-Fa Lin “Spin polarization and orbital hybridization induced optical excitations in LiFeO_2 ”. *The 2021 International Conference on Hierarchical Green Energy Materials (2021HIGEM), NCKU, Taiwan.*

TECHNICAL SKILLS

Programming languages and mathematical packages: Matlab, Python.

Computer aided design/engineering: Photoshop, Origin, Gnuplot.

Other: Windows OS, VASP, VESTA, Xcrysden, Xmgrace, Vaspkit.

LANGUAGES: Vietnam, English: Very good, fluently.