

CURRICULUM VITAE

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Education and Research Experience

Research Scholar Department of Chemistry and Biochemistry, University of California, Los Angeles, Los Angeles, California, the United States, 2018–2019.

Postdoc School of Science, Harbin Institute of Technology, P. R. China, 2008–2010.

Ph.D. in Physical Chemistry, awarded by Institute of Theoretical Chemistry, State Key Laboratory of Theoretical and Computational Chemistry, Jilin University, P. R. China, 2003-2008.

B.Sc. in Chemistry, awarded by College of Chemistry, Jilin University, P. R. China, 1999-2003.

Research Interests: Computational Chemistry

- ✧ The relationship between the structure and function of novel solar cells
- ✧ Thermodynamic and dynamic properties of "surface / interface" systems
- ✧ Design and explosive properties of novel high energy density materials
- ✧ Development and application of multiscale simulation methods and highly-optimized computation programs in material sciences and soft condensed matters
- ✧ Better explanation and analysis of phenomenon and essence based on the cooperation of computational chemistry and experiment

Awards and Honors

- ✧ Awards for Excellent Class Teacher, Beijing Institute of Technology
- ✧ Awards for Excellent Young Scholars, Beijing Institute of Technology

Research Projects

- ✧ National Natural Science Foundation of China
- ✧ Fully Funded Research Projects of The China Scholarship Council
- ✧ Major State Basic Research Development Programs of China

- ✧ Excellent Young Scholars Research Fund of Beijing Institute of Technology
- ✧ Basic Research Fund of Beijing Institute of Technology
- ✧ Transverse Research Projects of Beijing Institute of Technology
- ✧ Project of State Key Laboratory of Explosion Science and Technology, Beijing Institute of Technology
- ✧ China Postdoctoral Science Foundation
- ✧ Postdoctoral Science Foundation of Heilongjiang Province of China

Academic Community Service

Member, Chinese Chemical Society

Selected Publications

- ✧ The sensitization effect and microscopic essence of different additives on the electronic structure of nanocrystalline TiO₂ in dye-sensitized solar cell, *Solar Energy*, 189, 372, 2019.
- ✧ A novel luminescent Pb(II)-organic framework exhibiting a rapid and selective detection of trace amounts of NACs and Fe³⁺ with excellent recyclability, *Dalton T.*, 46, 6303, 2017.
- ✧ Molecular design and explosive properties of N₈ isomers as potential high energy density materials, *J. Northeast. Univ.*, 37, 824, 2016.
- ✧ Periodic density functional theory study on the interaction mode and mechanism of typical additives with TiO₂ substrates for dye-sensitized solar cell applications, *J. Power Sources*, 246, 10, 2014.
- ✧ Asymmetric photochemical reaction of 5-methylbicyclo[1.1.1]-pentanyl ketone, *Chem. Res. Chinese U.*, 28, 703, 2012.
- ✧ Adsorption sensitivity of Pd-doped SWCNTs to small gas molecules, *Sens. Actuators, B*, 151, 56, 2010.
- ✧ Monolayer and multilayer compact film formations on different substrates by physical deposition, *J. Polym. Sci., Part B: Polym. Phys.*, 47, 353, 2009.
- ✧ Dissipative particle dynamics simulation on the polymer membrane formation by immersion precipitation, *J. Membr. Sci.*, 311, 251, 2008.
- ✧ Molecular dynamics simulation study on controlling the adsorption behavior of polyethylene by fine tuning the surface nanodecoration of graphite, *Langmuir*, 23, 802, 2007.
- ✧ Molecular dynamics simulation study on adsorption and diffusion processes of a hydrophilic chain on a hydrophobic surface, *J. Phys. Chem. B*, 109, 17644, 2005.