孟岩，女，理学博士，齐鲁工业大学理学院讲师。



**【求学和工作经历】**

2014.9—至今，齐鲁工业大学，理学院，教师。

2012.11—2013.4，香港城市大学，物理与材料科学系，研究助理。

2012.7—2012.8，北京计算科学研究中心，研究助理。

2009.9—2014.7，吉林大学，原子与分子物理研究所，硕博连读。

2005.9—2009.7，北华大学，物理学院，本科。

**【教学工作】**

入职齐鲁工业大学以来，主要承担《大学物理》、《大学物理实验》课程的教学任务。在教学工作中，坚持以学生为主体，善于运用简单有趣的生活现象，引发学生自主对其内在物理知识探索的欲望。授课言简意赅，深入浅出，在学生学会理论基础知识的同时，注重培养学生建立物理思想，以及处理问题的逻辑性。坦诚对待，真心面对，让学生学得容易，学得轻松，学得愉快。

**【科研工作】**

近年来一直从事复杂分子系统中的相互作用方向的研究，且基于原子层次，应用从经典分子动力学模拟到量子第一性原理的各种不同精度的研究方法。主持国家自然科学基金青年基金项目，环境影响下碳基纳米材料吸附生物小分子的识别研究，到位经费24.27万元；参与山东省高等学校科技计划一项，到位经费6万元。目前，以第一作者在SCI检索期刊发表论文4篇，影响因子总数大于12.0，发表会议论文2篇，此外，作为合作者发表论文8篇。

**【代表论文】**

[1] **Yan Meng**, Qi Wu, Lei Chen, Wangmo Sonam, Yang Gao, Zhigang Wang,**\*** Rui-Qin Zhang,**\*** Dajun Ding, Thomas A. Niehaus, Thomas Frauenheim. “Signatures in vibrational and UV-visible absorption spectra for identifying cyclic hydrocarbons by graphene fragments”, ***Nanoscale***, 2013, 5, 12178-12184.

[2] **Yan Meng**, Xing Dai, Minsi Xin, Chuanjin Tian, Hang Liu, Mingxing Jin, Zhigang Wang,**\*** Ruiqin Zhang,**\*** “Environment confinement induced stability enhancement of chiral molecules”, ***chemphyschem***, 2015, 15, 2672-2675.

[3]**Yan Meng**, Peng Xiu, Bolong Huang, Zhigang Wang,\* Rui-Qin Zhang,\* Ruhong Zhou.\* “A unique feature of chiral transition of a difluorobenzo[c]phenanthrene molecule confined in a boron-nitride nanotube based on molecular dynamics simulations”, ***Chem. Phys. Lett.***, 2014, 591,265-267.

[4] **Yan Meng**, Chuanjin Tian, Fengting Wang, Zhigang Wang**\***, Mingxing Jin, Lei Chen, Wei Feng, Dajun Ding. “Hyperconjugation effect on the structural stability of a tert-butyl and its derived C4Hn (n=4-10) isomers”, ***Journal of Theoretical and Computational Chemistry***, 2012, 11, 1217-1225.

[5] **Yan Meng**, Zhigang Wang,\* Shoufu Pan. “Research of properties in the substitution of As for P in the skeleton of DNA”, ***The Sixteenth National Academic Conference on Atomic and Molecular Physics***, 2011, 131. (in Chinese)

[6] **Yan Meng**, Mingxing Jin, Zhigang Wang,\* Rui-Qin Zhang.\* “A Study of quantum effects of chiral transition under confinements”, INELE2013-***International Conference on Interdisciplinary Nanoscience for Energy, Life and Environment***, 2013, P4-27.

[7] Xing Dai, **Yan Meng**, Zhigang Wang,\* Rui-Qin Zhang,\* et al. "Energetics and Electronic Properties of a Neutral Diuranium Molecule Encapsulated in C90 Fullerene", ***Procedia Chemistry***, 2012, 7, 528-533. (ATALANTE 2012 - Nuclear Chemistry For Sustainable Fuel Cycles)

[8] Chuanjin Tian, Peng Xiu, **Yan Meng**, Wenyan Zhao, Zhigang Wang,\* Ruhong Zhou.\* “Enantiomerization Mechanism of Thalidomide and the Role of Water and Hydroxide Ions”, ***Chem. Eur. J.*** 2012, 18, 14305-14313.

[9] Minsi Xin, Fengting Wang, **Yan Meng**, Chuanjin Tian, Mingxing Jin, Zhigang Wang,\* Ruiqin Zhang.\* “Characteristic Vibrational Modes and Electronic Structures of Carbon Nanotubes Containing Defects”. ***J. Phys. Chem. C***, 2012, 116, 292-297.

[10] Lei Chen, Zhengqiang Li, **Yan Meng**, Ming Lu, Zhigang Wang,\*, Rui-Qin Zhang.\* Chemical Mechanism and Tunability of Surface-enhanced Raman Scattering of Pyridine on Heteronuclear Coinage Metal Diatomic Clusters: A Density Functional Study. ***J. Phys. Chem. C***, 2013, 117, 12544-12551.

[11] Ruixia Song, Wangmo Sonam, Minsi Xin, **Yan Meng**, Ping Huai, Zhigang Wang, \*Rui-Qin Zhang.\* “Anomalous stability of graphene containing defects covered by a water layer”. ***Nanoscale***, 2013, 5, 6767-6772.

[12] Fengting Wang, Lei Chen, Chuanjin Tian, **Yan Meng**, Zhigang Wang, \* Ruiqin Zhang,\* Mingxing Jin, Ping Zhang, Dajun Ding. “Interactions between free radicals and a graphene fragment: Physical versus chemical bonding, charge transfer, and deformation”, ***J. Comput. Chem.*** 2011, 32, 3264-3268.

[13] Minsi Xin, Xing Dai, Bolong Huang, **Yan Meng**, Wei Feng, Mingxing Jin, Zhigang, Wang,\* Rui-Qin Zhang.\* “Basis Set Effect on Defect Induced Spin Polarization of a Carbon Nanotube in Density Functional Theory Calculations”. ***Chem. Phys. Lett.***, 2013, 585, 107-111.

[14] Chunjin Tian, Zhigang Wang,\* Mingxing Jin,\* Wenyan Zhao, **Yan Meng**, et al. “Transformation mechanism of a H2 molecule from physisorption to chemisorption in pristine and B-doped C20 fullerenes”, ***Chem. Phys. Lett.***, 2011, 511, 393-398.