徐玉庆 博士 讲师

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教育背景

2008.07 – 2013.05　**理学博士**（硕博连读），凝聚态物理学专业，山东大学物理学院，山东济南.

2004.08 – 2008.06　**理学学士**，物理学专业，山东大学物理学院，山东济南.

工作经历

2017.09 – 至　今　**讲师**，鲁东大学物理与光电工程学院，山东烟台.

2013.06 – 2017.08　**博士后**，香港浸会大学理学院，中国香港.

主讲课程

本科生课程：《力学》、《理论力学》、《普通物理》、《MATLAB 语言及应用》、《文献调研与科技论文写作》等.

获得奖励

2021.10　　全国高等学校物理基础课程青年教师讲课比赛决赛三等奖.

2021.05　　全国高等学校物理基础课程青年教师讲课比赛山东省预赛一等奖.

目前研究领域

1. 分子电子学

基于密度泛函理论及非平衡格林函数方法，研究有机分子器件结构的电荷输运性质及其调控机制，进而在上述研究结果的基础上进行有机分子逻辑功能器件的设计工作.

2. 生物化学与分子生物学

基于经典物理、量子物理及统计物理方法，对自由能及同位素效应的传统计算方法在路径积分理论框架下加以修正. 应用该方法模拟涉及 DNA、RNA 和蛋白质分子的生物化学反应过程，揭示其反应机理，并将上述研究结果应用于生物催化、生物技术及药物设计等方面.

代表性成果

1. **Yuqing Xu***, Desheng Liu, and Meishan Wang*. *Chem. Eur. J.*, **2023**, 29, e202301294.
   Enhancing gating performance in organic molecular field-effect transistors by introducing polar azulene components
2. **Yuqing Xu***, Wenkai Zhao, Dongqing Zou, Xiaoteng Li, Ming Qin, Chunyang Wang, Desheng Liu, and Meishan Wang*. *Langmuir*, **2023**, 39, 8769.
   Effects of inorganic substitutions and different metal electrode materials on electronic transport properties of organic molecular devices
3. **Yuqing Xu***, Michael E. Harris, Darrin M. York*, and Kin-You Wong*. *J. Chem. Theory Comput.*, **2023**, 19, 1322.
   Altered mechanisms for acid-catalyzed RNA cleavage and isomerization reactions models
4. Guangfu Ni, Zirui Li, Yao Liang, Yongjun Fang, Meishan Wang, Desheng Liu, and **Yuqing Xu***. *J. Phys.: Condens. Matter*, **2023**, 35, 125302.
   Theoretical simulations of kinetic isotope effects on decarboxylation of 3-carboxybenzisoxazole
5. Hongyang Zhang, Yingjie Sun, Zhao Chen, Weigao Wang, Qiwei Wang*, Shuming Chen*, **Yuqing Xu***, and Wai-Yeung Wong*. *Chem. Eng. J.*, **2023**, 451, 138632.
   Efficient deep red and NIR OLEDs based on Ir(III) complexes fabricated by evaporation and solution processing

6. **Yuqing Xu***, Kin-Yiu Wong, and Meishan Wang*. *ChemPhysChem*, **2022**, 24, e202200571.
   Theoretical simulations of kinetic isotope effects on decarboxylation of 3-carboxybenzisoxazole

7. Hongyang Zhang, Zhao Chen, Longzhi Zhu, Yongquan Wu*, **Yuqing Xu***, Shuming Chen*, and Wai-Yeung Wong*. *Adv. Opt. Mater.*, **2022**, 10, 2200111.
   High performance NIR OLEDs with emission peak beyond 760 nm and maximum EQE of 6.39%

8. Jie Cheng, Bin Cui, **Yuqing Xu***. *Eur. Phys. J.: Appl. Phys.*, **2022**, 97, 29.
   Effects of inorganic substitutions on electronic transport properties of single-molecule devices

9. Yihua Zhuo, Yanyu Zhang, Yadong Feng, **Yuqing Xu***, Qihua You*, Lei Zhang, Huabin Huang, and Lili Lin*. *RSC Adv.*, **2021**, 11, 9290.
   A 3,5-dinitropyridin-2yl substituted naphthalimide-based fluorescent probe for the selective detection of biothiols and its application in cell-imaging

10. **Yuqing Xu***, Kin-Yiu Wong, Meishan Wang*, Desheng Liu, Wenkai Zhao, Dongqing Zou, and Xiaoteng Li. *J. Phys. Chem. A*, **2020**, 124, 10678.
    Theoretical simulations of heavy-atom kinetic isotope effects in aliphatic Claisen rearrangement

11. **Yuqing Xu***, Meishan Wang, Changfeng Fang, Bin Cui, Guoming Ji, Wenkai Zhao, Desheng Liu, Chunyang Wang, and Ming Qin. *J. Phys.: Condens. Matter*, **2019**, 31, 285302.
    Lateral scaling and positioning effects of top-gate electrodes on single-molecule field-effect transistors

12. Liang Xu[#], **Yuqing Xu**[#], Nai-Ho Cheung, and Kin-Yiu Wong*. *Theor. Chem. Acc.*, **2018**, 137, 132.
    Practical approach for beryllium atomic clusters: TD-DFT potential energy surfaces from equilibrium to dissociation for excited states of $2s \rightarrow 2p$

13. Qihua You*, jinhai Shen, Ganping Shen, Liyun Peng, Yuanqin Lu, Qi Fu, **Yuqing Xu***, Lei Zhang. *Bull. Korean Chem. Soc.*, **2018**, 39, 363.
    A colorimetric and fluorescent pH probe for extremely acidic conditions and its application in pH test paper

14. **Yuqing Xu**, Bin Cui, Guomin Ji, Dongmei Li, and Desheng Liu*. *Phys. Chem. Chem. Phys.*, **2013**, 15, 832.
    Effect of the orientation of nitro group on the electronic transport properties in single molecular field-effect transistors

15. **Yuqing Xu**, Changfeng Fang, Guomin Ji, Wei Du, Dongmei Li, and Desheng Liu*. *Phys. Chem. Chem. Phys.*, **2012**, 14, 668.
    Electrostatic current switching and negative differential resistance behavior in a molecular device based on carbon nanotubes

16. **Yuqing Xu**, Changfeng Fang, Bin Cui, Guomin Ji, Yaxin Zhai, and Desheng Liu*. *Appl. Phys. Lett.*, **2011**, 99, 043304.
    Gated electronic currents modulation and designs of logic gates with single molecular field effect transistors