

刘作业（青年教授）

2021-05-20 核学院

一、基本情况

刘作业，男，1986年01月出生于山东定陶，兰州大学翠英学者，核科学与技术学院青年教授，博士生导师。

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二、主要学习工作经历

2004年09月-2008年06月，在兰州大学应用物理学专业学习，获得理学学士

2008年09月-2015年06月，在兰州大学粒子物理与原子核物理专业学习，获得理学博士

2012年10-2015年01月，在德国马克思-普朗克核物理所激光物理专业联合培养博士学习。

2015/07-至今，在兰州大学工作

三、研究领域

超快激光物理、激光检测技术

四、主讲课程

1) 计算物理 2) 普通物理2/2 3) 数值分析与模拟

五、学术兼职

Opt.Express、Opt. Letters、Laser and Particle beams、Plasma Physics and Controlled Fusion
等期刊审稿人

六、科研项目

1) 国家自然科学基金大装置联合基金培育项目1项（主持）

2) 国家自然科学基金重大仪器研制项目1项（第二参与人）

- 3) 国家自然科学基金青年项目1项 (主持)
- 4) 主持其它纵向科研课题2项, 横向技术研发项目3项, 累计经费400万元。

六、主要成果

- 1) 2012年获教育部博士研究生学术新人奖
- 2) 2013年入选兰州大学第六批优博培育项目
- 3) 2016年入选兰州大学青年教授计划
- 4) 2021年入选兰州大学“萃英学者”

近年来公开发表的第一作者、通讯作者学术论文:

- 1、 Phase reconstruction of coherently excited systems by transient-absorption spectroscopy, Zuoye Liu, Stefano M. Cavaletto, Christian Ott, Kristina Meyer, Yonghao Mi, Zoltán Harman, Christoph. H. Keitel, and Thomas Pfeifer, Phys. Rev. Lett. 115, 033003(2015) (学科顶级、Nature Index)
- 2、 Populations of B2 and X2g electronic states of molecular nitrogen ions in air determined by fluorescence measurement, Quanjun Wang, Rao Chen, Yuxuan Zhang, Xiaozhen Wang, Chunlin Sun, Pengji Ding, Zuoye Liu, and Bitao Hu, Phys. Rev. A 103, 033117 (2021) (学科顶级, Nature Index)
- 3、 Watching the formation and reshaping of a Fano resonance in a macroscopic medium, Yu He , Zuoye Liu,* Nan Xue, Christian Ott , Thomas Pfeifer, Adrian N. Pfeiffer and Bitao Hu? Phys. Rev. A 103, L041102 (2021) (学科顶级, Nature Index)
- 4、 Macroscopic transient absorption in a V-type three-level system, Yu He, Rao Chen, Fujun Wang, Adrian N Pfeiffer, Yuxuan Zhang, Zuwen Cui, Jingjie Ding, Zuoye Liu and Bitao Hu, J. Phys. B 53, 175601 (2020)
- 5、 Spectral attenuation of a 400-nm laser pulse propagating through a plasma filament induced by an intense femtosecond laser pulse, Quan-Jun Wang, Rao Chen, Jia-Chen Zhao, Chun-Lin Sun, Xiao-Zhen Wang, Jing-Jie Ding, **Zuo-ye Liu**, and Bi-Tao Hu, Chin. Phys. B 29, 013301(2020)

- 6、 Signatures of self-modulation effects during pulse propagation in single-pulse absorption spectra, Yu He, **Zuoye Liu**,* Zuwen Cui, Yuxuan Zhang, Adrian N. Pfeiffer, Thomas Pfeifer, Jingjie Ding, and Bitao Hu, Phys. Rev. A 99, 053418 (2019) (学科顶级, Nature Index)
- 7、 Ultrafast dynamic evolution of multilevel systems in mediumstrength laser fields, Zhenhao Wang , Guoqiang Shi, Yu He, Quanjun Wang, Jingjie Ding, Shaohua Sun, **Zuoye Liu** and BitaoHu, New J. Phys. 21, 053007 (2019) (学科一流)
- 8、 Phase reconstruction of a strong-laser-field-excited complex molecular system, Yanghua Zhang, Zhenhao Wang, Quanjun Wang, Jingjie Ding, Shaohua Sun, **Zuoye Liu**,* and Bitao Hu, Phys. Rev. A 98, 033412 (2018) (学科顶级、 Nature Index)
- 9、 Observation and quantification of the quantum dynamics of a strong-field excited multi-level system, Z. Liu, Q. Wang, J. Ding, S. M. Cavaletto, T. Pfeifer and B. Hu, Sci. Rep., 7: 39993–39999 (2017)
- 10、 Propagation of a filamentary femtosecond laser beam with high intensities at an air-solid interface, Z. Y. Liu, Y. Zhang, J. Ding, S. Sun and B. T. Hu, Chinese Optics Letters 15, 021401 (2017)
- 11、 Energy exchange process among multiple filamentary femtosecond laser beams in air, J. Ding, P. Ding, Z. Liu* and B. T. Hu, Sci. China Phys. Mech. 59, 633001(2016) (**SCI一区, 学科一流**)
- 12、 Control of molecular excitation during the plasma generation of a femtosecond laser pulse, Quanjun Wang, Yanghua Zhang, Zhenhao Wang, Jingjie Ding, Zuoye Liu*, and Bitao Hu, Chin. Opt. Lett. 14, 110201 (2016)
- 13、 Spatiotemporal pulse-splitting of a filamentary femtosecond laser pulse via multi-filament interaction, J J Ding, Z Y Liu*, S H Sun, Y C Shi and Bitao Hu, Laser Phys. 25, 105401 (2015);
- 14、 Characterization of Femtosecond Laser-Induced Plasma under Low Pressure in Argon, Cao Y., LIU X., Xian W., Sun S., Sun M., Ding P., Shi Y., Liu Z., Hu B. Chin. Phys. Lett. 32, 035203 (2015)

- 15、Signatures and control of strong-field dynamics in a complex system, K. Meyer, Z. Liu, N. Müller, J.-M. Mewes, A. Dreuw, T. Buckup, M. Motzkus, and T. Pfeifer, PNAS 112, 15613(2015) (学科顶级、Nature Index)
- 16、He原子体系中偶极子响应的周期性量子相位 调控的理论研究, 丁晶洁, 王全军, 刘作业*, 胡碧涛, 物理学报, 64, 243201(2015)
- 17、Generation of high-frequency combs locked to atomic resonances by quantum phase modulation, **Z. Y. Liu**, C. Ott, S. M. Cavaletto, Z. Harman, C. H. Keitel, and T. Pfeifer, New J. Phys. 16, 093005 (2014) (学科一流)
- 18、Spatial splitting of femtosecond laser pulse induced by infrared plasma grating, Zuoye Liu and Bitao Hu J. Phys.: Conf. Ser. 488, 032007 (2014)
- 19、Efficient generation of third harmonic radiation of air filament induced by plasma grating, Z.Y. Liu, Y. C. Shi and B. T. Hu, Acta Phys. Sin. 63, 184206 (2014)
- 20、Spectral modulation and supercontinuum generation assisted by an infrared femtosecond plasma grating, Z.Y. Liu, S. H. Sun, Y. C. Shi, P. J. Ding, Q. C. Liu, X. L. Liu, B. W. Ding, and B. T. Hu, Chin. Phys. B 22, 075204 (2013)
- 21、Fluorescence spectroscopy of gas plasma induced by multifilament interaction, Bitao Hu, Zuoye Liu, Lu Li, Shaohua Sun, Pengji Ding, Yanchao Shi, Xiaoliang Liu, Qingcao Liu, ZeqinGuo, and Baowei Ding, Laser Phys. Lett., 9, 075401(2013) (SCI—区)
- 22、Control of third harmonic generation by plasma grating generated by two noncollinear IR femtosecond filaments, Zuoye Liu, Pengji Ding, Yanchao Shi, Xing Lu, Shaohua Sun, Xiaoliang Liu, Qingchao Liu, Baowei Ding, and Bitao Hu, Opt. Express 20, 8837 (2012) (学科一流)
- 23、Enhancement of third-order harmonic generation by interaction of two IR femtosecond filaments, Z.Y. Liu, P. J. Ding, Y. C. Shi, X. Lu, Q. C. Liu, S. H. Sun, X. L. Liu, B. W. Ding, and B. T. Hu, Laser Phys. Lett. 9, 649 (2012) (SCI—区)
- 24、Dynamics of Coulomb explosion of Xe clusters in an ultrafast high-intensity laser field, Z Y Liu, H C Du, S H Sun, L Li, L L Ma and B T Hu, Indian J. Phys. 86 , 647(2012)

25、Quasi-classical study of stereo-dynamics for the reaction $C+CH\rightarrow C_2+H$ on the $12A'$ potential energy surface, H R Yang, Z Y Liu, S H Sun, H C Du, L Li, B T Hu, J Theor. Comput. Chem., 10, 75 (2011)

26、Theoretical study of stereo-dynamics for the reaction $C(3P)+CH(2II)\rightarrow C_2+H$ on the three lowest potential energy surfaces, Z. Y. LIU and B. T. HU, J Theor. Comput. Chem. 9, 1065 (2010)

上一篇: 刘志毅 (</shiziduiwu/jiaoshou/2018/1018/173120.html>)

下一篇: 龙文辉 (</shiziduiwu/jiaoshou/2010/0708/173131.html>)

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