

Search

首页

科学研究

教学研究

获奖信息

招生信息

学生信息

我的相册

教师博客



+ 54

杨玉军 (教授)

基本信息 MORE +

学位: 博士

性别: 男

学历: 博士研究生毕业

在职信息: 在职

所在单位: 原子与分子物理研究所

联系方式: 邮编: 130012

通讯地址: 长春市前进大街2699号
吉林大学原子与分子物理研

邮箱: yangyj@jlu.edu.cn

个人简介

杨玉军, 教授, 博士生导师。1997年本科毕业于辽宁大学物理系, 2004年吉林大学获得理学博士学位(师从朱硕人教授), 2009年台湾国立大学客座专家。2014年被评为教授、博士生导师。主要从事强激光与原子、分子相互作用的理论研究, 至今已发表SCI收录论文70余篇, 主持多项国家及省部级科研项目。

Selected publications:

[34] Y. T. Zhao, S. C. Jiang, X. Zhao, J. G. Chen and Y. J. Yang, Effect of interband polarization on a solid's high-order harmonic generation just below the band gap, *Phys. Rev. Lett.*, **124**, 2874(2020)

[33] S. S. Zhou, Y. J. Yang, F. M. Guo, J. G. Chen and J. Wang, Multieltron effect for high-order harmonic generation from molecule irradiated by bichromatic laser pulses, *IEEE J. Quantum Electronics*, **56**, 9000207(2020)

[32] D. Wu, F. M. Guo, J. Wang, J. G. Chen and Y. J. Yang, Dynamics of strong-field double ionization of H_2 in co-rotating two-color circularly polarized laser fields, *Theor. Phys.*, **72**, 055503(2020)

[31] Y. T. Zhao, X. Q. Xu, S. C. Jiang, X. Zhao, J. G. Chen and Y. J. Yang, Cooper minimum of high-order harmonic spectra from an MgO crystal in an ultrashort laser pulse, *Phys. Rev. A*, **101**, 033413(2020)

[30] Y. Qiao, D. Wu, J. G. Chen, J. Wang, F. M. Guo and Y. J. Yang, High-order harmonic generation of H_2^+ irradiated by a co-rotating two-color circularly polarized laser pulse, *Phys. Rev. A*, **100**, 063428(2019)

[29] Y. T. Zhao, S. Y. Ma, S. C. Jiang, Y. J. Yang, X. Zhao and J. G. Chen, All-optical reconstruction of k-dependent transition dipole moment by solid harmonic generation using ultrashort laser pulses, *Optics Express*, **27**, 34392(2019)

[28] X. K. Li, J. Q. Yu, H. Y. Xu, X. T. Yu, Y. Z. Yang, Z. Z. Wang, P. Ma, C. C. Wang, F. M. Guo, Y. Y. Yang, S. Z. Luo and D. J. Ding, Multi-orbital and excitative double ionization of CO molecules in strong circularly polarized laser fields, *Phys. Rev. A*, **100**, 013415(2019)

[27] J. P. Li, H. J. Jia, D. R. Zhu, X. C. Wang, F. C. Liu and Y. J. Yang, Piezoelectricity and dipolar polarization of group V-IV-III-VI sheets: A first principles study, *Surface Science*, **663**, 918(2019)

[26] J. Y. Zhang, M. S. Wu, Y. Qian, X. Gao, Y. J. Yang, K. Varga, Z. C. Yan and U. Schwingschlogl, S-wave elastic scattering of o-Ps from H_2 at low energy, *Phys. Rev. A*, **100**, 032701(2019)

- [25] F. Li, F. C. Jin, Y. J. Yang, J. Chen, Z. C. Yan, X. J. Liu and B. B. Wang, Understanding two-photon double ionization of helium from the perspective of the control of dynamic transitions, *J. Phys. B*, 52, 195601(2019)
- [24] Y. Pan, F. M. Guo, C. Jin, Y. J. Yang and D. J. Ding, Selection of electron quantum trajectories in macroscopic high-order harmonics generated by near-infrared laser pulses, *Rev. A*, 99, 033411(2019)
- [23] J. X. Han, J. Wang, Y. Qiao, A. H. Liu, F. M. Guo and Y. J. Yang, Significantly enhanced conversion efficiency of high-order harmonic generation by introducing a pulse into scheme of spatially inhomogeneous field, *Optics Express*, 27, 008768(2019)
- [22] F. C. Jin, J. Chen, Y. J. Yang, X. J. Liu, Z. C. Yan and B. B. Wang, Nonsequential double ionization of helium in IR+XUV two-color laser fields II: collision electron ion process, *J. Phys. B*, 51, 035601(2018)
- [21] F. C. Jin, F. Li, Y. J. Yang, J. Chen, X. J. Liu and B. B. Wang, Angle-resolved photoelectron energy spectrum from the high-order above-threshold ionization XUV two-color laser fields, *J. Phys. B*, 51, 245601(2018)
- [20] S. Z. Luo, S. S. Zhou, W. H. Hu, J. Q. Yu, X. K. Li, P. Ma, L. H. He, C. C. Wang, F. M. Guo, Y. J. Yang and D. J. Ding, Identifying the multielectron effect on rearrangement of CH₃Cl molecules in strong laser fields, *J. Phys. Chem. A*, 122, 8427(2018)
- [19] Y. Niu, F. Y. Liu, Y. Liu, H. J. Liang, Y. J. Yang, R. Ma and D. J. Ding, Pressure-dependent phase matching for high harmonic generation of Ar and N₂ in the femtosecond regime, *Optics Communications*, 397, 118(2017)
- [18] J. P. Li, Q. Q. Zhao, C. Liu, X. C. Wang and Y. J. Yang, *Materials Transactions*, 18, 1601(2017)
- [17] S. Z. Luo, S. S. Zhou, W. H. Hu, X. K. Li, P. Ma, R. H. Zhu, C. C. Wang, F. C. Liu, B. Yan, A. H. Liu, Y. J. Yang, F. M. Guo and D. J. Ding, Multiorbital effect on double ionization and dissociation of aligned polar molecules CH₃I and CH₃Br, *Phys. Rev. A*, 96, 063415(2017)
- [16] C. C. Wang, M. Okunishi, X. L. Hao, Y. Ito, J. Chen, Y. J. Yang, R. R. Lucchese, M. Zhang, B. Yan, W. D. Li, D. J. Ding and K. Ueda, Resonance-like enhancement of above-threshold ionization of polyatomic molecules, *Phys. Rev. A*, 93, 043422 (2016)
- [15] F. C. Jin, Y. Y. Tian, J. Chen, Y. J. Yang, X. J. Liu, Z. C. Yan and B. B. Wang, Nonsequential double ionization of helium in IR+XUV two-color laser fields: Collision electron ion process, *Phys. Rev. A* 93, 043417(2016)
- [14] S. P. Zhou, Y. J. Yang and Y. J. Yang, Controlling continuum wavepacket interference by two-color laser field in over-the-barrier ionization regime, *Front. Phys.* (2016)
- [13] Q. Y. Li, Z. Y. Zhang, Y. F. Zhang, S. Y. Li, F. M. Guo and Y. J. Yang, Light emission induced by XUV laser pulse interacting resonant with atomic hydrogen, *Optics Express*, 24, 015003(2016)
- [12] C. Jia, J. Wang, Q. Y. Li, F. M. Guo, J. G. Chen, S. L. Zeng and Y. J. Yang, Chirp-free isolated attosecond pulse generation from an atom irradiated by a femtosecond pulse, *Optics Express*, 23, 32222 (2015).
- [11] J. Wang, G. Chen, S. Y. Li, D. J. Ding, J. G. Chen, F. M. Guo and Y. J. Yang, Ultrashort-attosecond-pulse generation by reducing harmonic chirp with a spatially inhomogeneous electric field, *Phys. Rev. A*, 92, 033848(2015).
- [10] J. G. Chen, Y. J. Yang, J. Chen and B. B. Wang, Probing dynamic information and spatial structure of Rydberg wave packets by harmonic spectra in a few-cycle laser pulse, *Rev. A*, 91, 043403(2015)
- [9] C. Wang, Y. Tian, S. Luo, W. G. Roeterdink, Y. J. Yang, D. Ding, M. Okunishi, G. Prumper, K. Shimada, K. Ueda and R. Zhu, Resonance-like enhancement in high-order above-threshold ionization of formic acid, *Phys. Rev. A*, 90, 023405(2014)
- [8] J. Y. Zhang, Y. J. Yang, Y. Qian, Z. C. Yan and U. Schwingenschlogl, Scattering of near-zero-energy electrons and positrons by H₂, *Phys. Rev. A* 89, 042703(2014)
- [7] S. Y. Li, F. M. Guo, Y. Song, A. M. Chen, Y. J. Yang and M. X. Jin, Influence of group-velocity-dispersion effects on the propagation of femtosecond laser pulses in a medium, *Phys. Rev. A* 89, 023809 (2014).
- [6] Y. Song, S. Y. Li, X. S. Liu, F. M. Guo and Y. J. Yang, Investigation of atomic radiative recombination process by Bohmian mechanics method, *Phys. Rev. A* 88, 053401(2013)
- [5] S. S. Wei, S. Y. Li, F. M. Guo, Y. J. Yang, and B. B. Wang, Dynamic stabilization of ionization for an atom irradiated by high-frequency laser pulses studied with the Bohmian trajectory scheme, *Phys. Rev. A* 87, 063418(2013)
- [4] F. P. Chi, Y. J. Yang, and F. M. Guo, Controlling field-free molecular orientation with combined circularly and linearly polarized resonant pulses at low rotational frequencies, *Chem. Phys. Lett.* 556, 350(2013)
- [3] Y. Song, F. M. Guo, S. Y. Li, J. G. Chen, S. L. Zeng, and Y. J. Yang, Investigation of the generation of high-order harmonics through Bohmian trajectories, *Phys. Rev. A* 84, 043401(2012).
- [2] J. G. Chen, Y. J. Yang, S. L. Zeng, and H. Q. Liang, Generation of intense isolated sub-40-fs pulses from a coherent superposition by quantum path control in multipulse regime, *Phys. Rev. A*, 83, 023401(2011).
- [1] J. G. Chen, S. L. Zeng, and Y. J. Yang, Generation of isolated sub-50-fs pulses by quantum path control in multicycle regime, *Phys. Rev. A* 82, 043401(2010)

主讲课程

《原子结构与光谱》, 《含时量子力学》, 《强场物理》

[Do not] put too much confidence in experimental results until they have been confirmed by theory. -- Sir Arthur Eddington

教育经历

[1] 1997.9-2004.6
吉林大学 | 物理学
[2] 1993.9-1997.7
辽宁大学 | 物理学

工作经历

[1] 2014.9-至今
吉林大学
[2] 2007.8-2009.7
物理系 | 国立台湾大学

研究
方向

[1]强激光与原子、分子相互作用数值模拟研究, 包括强场近似, 量子数值模拟等, 主要应用玻姆力学方案和动量空间计算

[2]原子光谱计算, 机器学习在原子物理中的应用

暂无内容

团
队
成
员

地址: 吉林省长春市前进大街2699号

信息管理和技术维护: 吉林大学大数据和网络管理中心

版权所有 2017 吉林大学 吉ICP备06002985号-1

访问量: 00005430次

手机版 最后更新时间: 2020.9.21