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个人主页:



个人简介

王雪林博士、山东大学物理学院教授、博士生导师、副院长。1989年毕业于山东大学固体物理专业，获得理学硕士学位，2001年山东大学物理与微电子学院攻读凝聚态物理专业博士学位，2004年获得理学博士学位。全国优秀博士学位论文获得者，入选教育部“新世纪优秀人才支持计划”，中国电工技术学会高级会员、电子束离子束第六届专业委员会委员、美国光学学会（OSA）会员，山东物理学会常务理事。主要研究方向为离子与固体相互作用、离子注入晶体光波导以及离子束刻蚀、离子辐照（纳米）光电子学，核能结构材料。

研究项目

- 1、主持国家自然科学基金项目，10575067，2006年-2008年，研究经费30万元。
- 2、主持教育部新世纪优秀人才资助计划，2008年-2010年，研究经费50万元。
- 3、主持山东省自然科学基金项目，Y2006A10，2007-2009年，研究经费4.5万元。
- 4、参加国家自然科学基金重点项目，10735070，2008-2011年，研究经费230万元。
- 5、主持高等学校全国优秀博士学位论文作者专项资金，2008-2012年，研究经费64万。
- 6、主持国家自然科学基金项目，10975094，2010年-2012年，研究经费48万元。
- 7、国家重点基础研究计划（973计划）课题，2010CB832906，微纳结构的载能离子制备、调控及其机理研究，2010年-2014年，研究经费173万元，正在进行。
- 8、国家自然科学基金委员会，离子束材料改性国际会议，11210301029，2012年，10万元。
- 9、主持国家自然科学基金项目，11275117，2013年-2016年，研究经费98万元，正在进行。

研究生招生专业

招收凝聚态物理、光学、核科学技术（核能结构材料）等专业硕士、博士研究生

研究论文和专利

2002年以来，与研究团队其他人员合作，在Applied Physics Letters、Optics Express、Optics Letters、Journal of Applied Physics等SCI收录的国际学术期刊上发表论文100余篇，获得授权国家发明专利2项，申请国家发明专利3项。

以下是研究生或作为通信作者者的SCI收录的研究论文。

2013年:

1. Visible and near-infrared planar waveguide structure of polycrystalline zinc sulfide from C ions implantation
Tao Liu, Peng Liu, Lian Zhang, Yu-Fan Zhou, Xiao-Fei Yu, Jin-Hua Zhao, and Xue-Lin Wang*
Optics Express 21, 4671-4676(2013)
2. Thermal annealing property of KOTiPO4 planar and ridge waveguides formed by MeV Si ion implantation
Jin-Hua Zhao, Xi-Feng Qin, Feng-Xiang Wang, Gang Fu, Jing Du, and Xue-Lin Wang*
Optics Materials Express 3, 426-432(2013)
3. Planar and channel waveguides in fused silica fabricated by multi-energy C ion in the visible and near-infrared band
Tao Liu, Qing Huang, Peng Liu, Sha-Sha Guo, Lian Zhang, Yu-Fan Zhou, Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B 307, 472-476(2013)
4. Optical properties of planar waveguide in Nd:YVO4 crystal formed by swift Kr8+ ion irradiation
Lian Zhang, Peng Liu, Tao Liu, Yu-Fan Zhou, Jian-Rong Sun, Zhi-Guang Wang and Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B 307, 459-462(2013)
5. Response Properties of YAlO3:Ce Scintillation Crystal under Ion Irradiation
Peng Liu, Yanwen Zhang, Xuelin Wang, Xia Xiang, William J. Weber
Nuclear Instruments and Methods in Physics Research B 307, 49-54(2013)
6. The near-infrared waveguide properties of an LGS crystal formed by swift Kr8+ ion irradiation
Yu-Fan Zhou, Peng Liu, Tao Liu, Lian Zhang, Jian-Rong Sun, Zhi-Guang Wang, and Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B in press
<http://dx.doi.org/10.1016/j.nimb.2013.04.023>
7. Optical planar waveguide in sodium-doped calcium barium niobate crystals by carbon ion implantation
Jin-Hua Zhao*, Xi-Feng Qin, Feng-Xiang Wang, Gang Fu, Hui-Lin Wang, Xue-Lin Wang
Nuclear Instruments and Methods in Physics Research B 307, 452-455(2013)
8. Visible and near-infrared optical properties of chalcogenide glass waveguides formed by swift Kr ion irradiation
Tao Liu; Chun-Xiao Liu; Hai-Tao Guo; Qing Huang; Peng Liu; Sha-Sha Guo; Lian Zhang; Yu-Fan Zhou; Jian-Rong Sun; Zhi-Guang Wang; Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B in press
9. Optical properties of planar waveguide in Nd:YVO4 crystal formed by swift Kr8+ ion irradiation
Lian Zhang; Peng Liu; Tao Liu; Yu-Fan Zhou; Jian-Rong Sun; Zhi-Guang Wang; Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B in press
10. Planar waveguide in beta barium borate formed by proton implantation and optical properties in visible and near-infrared band
Tao Liu; Peng Liu; Lian Zhang; Yu-Fan Zhou; Xiao-Fei Yu; Xue-Lin Wang*
Optical Materials in press

2012年:

1. Waveguide structures for the visible and near-infrared wavelength regions in near stoichiometric lithium niobate formed by swift argon-ion irradiation
Qing Huang, Peng Liu, Tao Liu, Lian Zhang, and Xue-Lin Wang*
Optics Express 20, 4213-4218(2012)
2. Annealing behavior of LiNbO₃ planar waveguides formed by oxygen ion implantation
Jin-Hua Zhao, Qing Huang, Peng Liu, Xue-Lin Wang*, Hong-Ji Ma, Rui Nie
Nuclear Instruments and Methods in Physics Research B 272, 116-120 (2012)
3. Planar and channel waveguides on Na:CBN formed by oxygen ion implantation
Sha-Sha Guo, Jin-Hua Zhao, Qing Huang, Peng Liu, Tao Liu, Lian Zhang, and Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B 286, 322-325 (2012)
4. Lattice damage and waveguide properties of a proton-exchanged LiNbO₃ crystal after oxygen-ion implantation
Qing Huang, Peng Liu, Tao Liu, Sha-Sha Guo, Lian Zhang, and Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B 286, 318-321 (2012)
5. Nd:Li₆Y(BO₃)₃ crystal waveguide properties at wavelengths of 633 and 1539 nm produced by oxygen or silicon ion implantation
Peng Liu, Qing Huang, Tao Liu, Sha-Sha Guo, Lian Zhang, and Xue-Lin Wang*
Applied Optics 51, 1681-1687(2012)
6. Effects induced by swift argon-ion irradiation in proton-exchanged LiNbO₃ crystal
Huang Qing, Liu Peng, Liu Tao, Guo Sha-Sha, Wang Xue-Lin*
Chinese Physics B 21, 056103(1-4)(2012)
7. The optical and fluorescence properties of planar and channel waveguide in laser crystal Nd:SrGdGa₃O₇ formed by carbon ion implantation
Jin-Hua Zhao, Xiu-Hong Liu, Feng-Xiang Wang, Xi-Feng Qin, Gang Fu, Xue-Lin Wang*
Journal of Lightwave Technology 30, 2163-2167 (2012)
8. Second harmonic generation in periodically poled LiNbO₃ waveguides formed by oxygen-ion implantation
Qing Huang, Peng Liu, Tao Liu, Lian Zhang, Yu-Fan Zhou, and Xue-Lin Wang*
Physica Status Solidi, Rapid Research Letters 6, 205-207 (2012)
9. Visible and near-infrared waveguide properties in LiTaO₃ crystal produced by swift Ar⁸⁺ ion irradiation
Peng Liu, Qing Huang, Tao Liu, Sha-Sha Guo, Lian Zhang, Yu-Fan Zhou, and Xue-Lin Wang*
Applied Physics B, 108, 675-681 (2012)

2011年:

1. Annealing effect on planar waveguides in LiNbO₃ produced by oxygen ion implantation
Xiu-Hong Liu, Qing Huang, Jin-Hua Zhao, Peng Liu, Xue-Lin Wang*, Ji-Fu Du and Ning-Kang Huang
Applied Surface Science, Vol. 257, No. 6, 1918-1922 (2011)
2. Planar optical waveguides in Nd:BSO crystals fabricated by He and C ion implantation
Tao Liu, Sha-Sha Guo, Jin-Hua Zhao, Jing Guan, Xue-Lin Wang*
Optical Materials, Vol. 33, No. 3, 385-388(2011)

3. Simulation of the Transmission Characteristics of a Hexagonal Photonic Crystal Slab Etched into an Ion-implanted LiNbO₃ Waveguide
Qing Huang, Jin-Hua Zhao, Xiu-Hong Liu, Peng Liu, and Xue-Lin Wang*
Journal of the Korean Physical Society, Vol. 58, No. 4, 886-889(2011)
4. The properties of ion-implanted LiNbO₃ waveguides measured by the RBS and ion beam etching stripping methods
Jin-Hua Zhao, Qing Huang, Lei Wang, Gang Fu, Xi-Feng Qin, Peng Liu, Sha-Sha Guo, Tao Liu, and Xue-Lin Wang*
Optical Materials 33, 1357-1361(2011)
5. An He-implanted optical planar waveguide in an Nd:YGG laser crystal preserving fluorescence properties
Jin-Hua Zhao, Qing Huang, Peng Liu, and Xue-Lin Wang*
Applied Surface Science 257, 7310-7313(2011)

2010年:

1. Optical properties of planar waveguides on ZnWO₄ formed by carbon and helium ion implantation and effects of annealing
Jin-Hua Zhao, Tao Liu, Sha-Sha Guo, Jing Guan, and Xue-Lin Wang*
Optics Express Vol. 18, No. 18, 18989-18996(2010)
2. Lithium niobate ridge waveguides fabricated by ion implantation followed by ion beam etching
Jin-Hua Zhao, Xiu-Hong Liu, Qing Huang, Peng Liu, and Xue-Lin Wang*
Journal of Lightwave Technology, Vol. 28, No. 13, 1913-1916(2010)
3. Refractive index change in ion-implanted LiNbO₃ waveguides calculated from lattice damage ratio
Qing Huang, Jin-Hua Zhao, Peng Liu, and Xue-Lin Wang*
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4. 1×4-Branch waveguide power splitters in lithium niobate by means of multi-energy O ion implantation
Jin-Hua Zhao, Xue-Lin Wang*, and Feng Chen
Optical Materials, Vol. 32, No. 11, 1441-1445(2010)
5. The array waveguides formed in LiNbO₃ crystal by oxygen-ion implantation
Jin-Hua Zhao, Xiu-Hong Liu, Qing Huang, Peng Liu, Lei Wang, and Xue-Lin Wang*
Nuclear Instruments and Methods in Physics Research B, Vol. 268, No. 19, 2923-2925(2010)
6. Study on preventing segregation of erbium atoms to a silicon surface by annealing in oxygen atmosphere at high temperature
Xi-Feng Qin, Ming Chen, Xue-Lin Wang*, Gang Fu, Yi Liang, and Shao-Mei Zhang
Nuclear Instruments and Methods in Physics Research B, Vol. 268, No. 10, 1585-1587(2010)
7. Morphology characterization and mechanism analysis of the microstructure of LiNbO₃ fabricated by using focused ion beam milling
Peng Liu, Qing Huang, Xue-Lin Wang*, Xue-Feng Xu, and Sha Yan
Journal of the Korean Physical Society, Vol. 56, No. 4, 1369-1373(2010)
8. The fabrication of planar waveguides on Bi₁₂TiO₂₀ crystals by oxygen and helium ion implantation
Jin-Hua Zhao, Xue-Lin Wang*, Gang Fu, Xiu-Hong Liu, Qing Huang, and Peng Liu
Nuclear Instruments and Methods in Physics Research B, Vol. 268, No. 22, 3434-3437(2010)

9. Investigation of the lateral spread of erbium ions implanted in silicon crystal

Xi-Feng Qin, Ming Chen, Xue-Lin Wang*, Yi Liang, and Shao-Mei Zhang
Chinese Physics B, Vol. 19, No. 11, 113403(1-4)(2010)

10. Planar waveguides in Nd:SGG crystal formed by He ion implantation
Sha-Sha Guo, Tao Liu, Jin-Hua Zhao, Jing Guan, and Xue-Lin Wang*
Applied Optics, Vol. 49, No. 31, 6039-6042(2010)

以前的代表性论文:

Planar optical waveguides in β -BaB2O4 produced by oxygen ion implantation at low doses

Xue-Lin Wang, Feng Chen, Ke-Ming Wang, Qing-Ming Lu, Ding-Yu Shen, and Rui Nie
Applied Physics Letters, 85(2004) 1457-1459

Optical properties of stoichiometric LiNbO3 waveguides formed by low dose oxygen ion implantation

Xue-Lin Wang, Ke-Ming Wang, Feng Chen, Gang Fu, Shi-Ling Li, Ding-Yu Shen, Hong-Ji Ma, and Rui Nie

Applied Physics Letters, 86(2005)041103

Optical planar waveguide fabricated in Nd:LuVO4 crystal by mev oxygen implantation

Xue-Lin Wang, Ke-Ming Wang, Gang Fu, Shi-Ling Li, Feng Chen, Fei Lu, Huai-Jin Zhang, Hai-Kuan Kong, Ji-Yang Wang, Xian-Gang Xu, Ding-Yu Shen, Hong-Ji Ma, and Rui Nie

Optics Express, 13(2005)675-680

Low propagation loss of the waveguides in fused quartz by oxygen ion implantation

Xue-Lin Wang, Ke-Ming Wang, Gang Fu, Shi-Ling Li, Ding-Yu Shen, Hong-Ji Ma, and Rui Nie

Optics Express, 12(2004) 4675-4680

Channel waveguides of LiNbO3 crystals fabricated by low-dose oxygen ion implantation

Xue-Lin Wang, Feng Chen, Lei Wang, and Yang Jiao

Journal of Applied Physics, 100(2006)056106