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通讯地址:

研究方向

- 1、新型功能晶体生长机理的原位实时观测研究;
- 2、热电耦合作用下压电材料的性能表征及力电耦合机理研究;
- 3、锂电池电极材料及超级电容器电极材料的制备及应用研究。

荣誉奖励

- 2005年获得山东大学优秀博士论文奖。
2005年获得山东省优秀科研成果二等奖（第二位）。
2012年获得新城科技园奖教金。
2013年江苏省第十届高校大学生物理及实验科技作品创新竞赛优秀指导教师。

学术成果

主持项目:

- 1、新型深紫外非线性光学晶体CLBO的结构控制及晶体生长和性能研究国家自然科学基金 (51002029)
- 2、非线性光学晶体CLBO的微结构控制及对性能的影响研究教育部博士点基金 (20100092120039)
- 3、Bi₂Se₃基拓扑绝缘体材料的单晶生长研究 国家重点实验室开放课题
- 4、Eu³⁺掺杂BZT-XBCT的应力发光及其在土木工程健康监测的应用研究 国家重点实验室开放课题

专著:

- 1、Garnet-Metamorphichistory, Compositon and Crytallization, Chapter 2,2012, p.51,Nova Science Publishers, Inc. NewYork,4(10万字)

专利:

- 1.王增梅, 蔡亚菱, 侯小亮一种锆钛酸盐红色荧光粉及其制备方法, 专利号: 201310084152.X
- 2.王增梅, 王珠峰一种生长易吸潮单晶体的设备, 专利号: 201310076957.X;
- 3.王增梅, 王珠峰一种用于生长硼酸铯锂单晶的籽晶及其应用, 专利号: 201310291174.3
- 4.王增梅, 王珠峰, Hideo Kimura, 一种光学晶体掺杂方法, 专利号: 201310292421.1
- 5.王增梅,蔡亚菱, 一种三维泡沫状MoS₂的制备方法,专利号: 201310397199.1
- 6.王增梅, 李小帅, 朱鸣芳, 一种大尺寸超薄硒化铋 (Bi₂Se₃) 纳米片的制备方法, 专利号: 201310496510.8

发表论文:

2014年

1. Zhufeng Wang, **Zengmei Wang***, Yongxin Yin, et al. Temperature and frequency dependences of the electric properties of CLBO crystals, *Journal of Alloys and Compounds*, 591C(2014), pp. 377-382
2. Zhonglan Cai, **Zengmei Wang***, Huanhuan Wang, et al. An investigation of the nanomechanical properties of $(1-x)\text{BaTi}_{0.8}\text{Zr}_{0.2}\text{O}_3-x(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ thin films, *Applied Physics Letters*, **MS #L13-10803R**, revised.
3. Yaling Cai, **Zengmei Wang***, Kiyoshi Ozawa, Zhenxiang Cheng, Hideo Kimura, MoS_2 /amorphous carbon composites— influence of different organic carbon sources on lithium ion battery performance, *Journal of Materials Chemistry A*, revised.

2013年

1. **Z.M. Wang**, Zh. L. Cai, K. Zhao, X.L. Guo, J. Chen, W. Sun, Zh.X.Cheng, H. Kimura, B. W. Li, G.L. Yuan, J. Yin, Zh. G. Liu, In-situ observation of micromechanical behavior cross temperature-induced phase transformation in $\text{Ba}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3-0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ thin film, *Applied Physics Letters*, **103**, 071902 (2013) (SCI, EI) (IF=3.844)
2. **Zengmei Wang**, Kuan Zhao, et al. Crystallization, Phase Evolution and Ferroelectric properties of Sol-Gel-Synthesized $\text{Ba}(\text{Ti}_{0.8}\text{Zr}_{0.2})\text{O}_3-x(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ Thin Films, *Journal of Materials Chemistry C* 2013, 1, 522, (SCI, EI) (IF=6.01)
3. 郭新立, 王增梅, 陈坚, 等新型功能材料的产业化发展趋势《功能材料》 Vol.10, No.1, (2013) 19-22 (EI核心)
4. Yan Zhang, **Zengmei Wang**, et al. $0.5\text{Ba}(\text{Ti}_{0.8}\text{Zr}_{0.2})\text{O}_3-0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ 压电薄膜的摩擦、磨损性能物理学报 Vol.62, No.6 (2013) 066802 (SCI, EI)

2012

1. 王增梅, 赵宽等, 高性能无铅压电材料 $\text{Ba}(\text{Ti}_{0.8}\text{Zr}_{0.2})\text{O}_3-x(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ 单晶和薄膜的制备《中国材料进展》 Vol.31, No.4, 2012, 34-38 (EI核心)

2011

1. **Zengmei Wang**, Wei Sun, Optical properties of Dy^{3+} ions in $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ crystal *Phys. Status Solidi A* 208, No.12, 2011 page 2814–2818 (SCI, EI)
2. **Z. Wang**, D. Rajesh, M. Yoshimura, H. Shimatani, Y. Kitaoka, Y. Mori, and T. Sasaki,, Enhancement the CsB_3O_5 (CBO) crystal quality by fast cooling after crystal growth, *Journal of Crystal Growth* 318 (2011) 625-628 (SCI, EI)

2008

1. **Zengmei Wang**, Kentaro Kutsukake, Hitoshi Kodama, Noritaka Usami, Kozo Fujiwara, Yoshitaro Nose, Kazuo Nakajima, Influence of growth temperature and cooling rate on the growth of Si epitaxial layer by dropping type liquid phase epitaxy from the pure Si melt, *Journal of Crystal Growth* 310(2008)5248-5251 (SCI, EI)
2. Yang, H.; Lu, GW; Yu, YH; Li, YF; **Wang ZM** Lattice vibration of $\text{Sr}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ single crystal, *Spectroscopy and spectral analysis*, 28(3):564-568, 2008 (SCI, EI)

2007

1. **Zengmei Wang**, Duorong Yuan, Yansheng Yin, Ge Su, Crystal Growth and Spectroscopic Properties of Ho^{3+} : $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ Single Crystals, *Optical Materials*. 29 ,6(2007) 663-666 (SCI, EI)
2. **Zengmei Wang**, Yansheng Yin, Duorong Yuan, Optical spectroscopy properties of Tm^{3+} ion in $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ single crystal, *Phys. Stat. sol. (a)* 204(2007) 602-607 (SCI, EI)
3. **Zengmei Wang**, Yansheng Yin, Duorong Yuan, Optical transitions in Ho^{3+} ions doped $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ crystals, *Journal of Alloy and Compound* 436(2007) 364-368 (SCI, EI)
4. Niu Yi, **Wang Zeng-Mei***, Liu Ying-Cai, Yin Yan-Sheng, Yuan Duo-Rong, Structure and spectroscopic properties of Tm^{3+} doped langasite ($\text{La}_3\text{Ga}_5\text{SiO}_{14}$) crystal, *ACTA PHYSICA SINICA*, 56,5(2007)2968-2973

5. Li, YF; Lu, GW; Yang, H; et al, **Wang, ZM**; Yuan, DR Lattice vibration of $\text{Sr}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ single crystal, *PHYSICA STATUS SOLIDI b-BASIC SOLID STATE PHYSICS*, 244(2):518-528, 2007 (SCI,EI)

2006

1. **Zengmei.Wang**, Duorong. Yuan, Yansheng Yin, Xin Wang, Optical and dielectric properties of $\text{Sr}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ crystals, *Journal of Alloy and Compound* 425(2006) 264-267 (SCI,EI)
2. **Zeng M. Wang**, Ying C. Liu, Yan. Sh. Yin, Duo R. Yuan, Spectroscopic properties of Er^{3+} ions in $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ crystals, *Crystal Research and Technology* 41, 11(2006)1142-1147 (SCI,EI)
3. **Zengmei.Wang**, Yansheng Yin, Duorong Yuan, Crystal growth and optical properties of $\text{Tm}:\text{La}_3\text{Ga}_5\text{SiO}_{14}$ single crystals, *Appl. Phys. A* 85(2006)437-440 (SCI,EI)
4. Lan, JH; Lu, GW; **Wang ZM**; Yuan DR, Raman scattering spectra of $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ (CNGS) crystals, *Spectroscopy and spectral analysis*, 26(5):861-864, 2006 (SCI,EI)
5. Shi, XZ; Yuan DR, Wei, AJ; **Wang ZM**; Wang BL, Growth and optical activity of $\text{Ca}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ (CTGS) single crystal, *Materials Research Bulletin*, 41(6)1052-1055, 2006 (SCI,EI)

2005

1. **Wang,Zeng-Mei**; Yuan, Duo-Rong; et al., Systematic study on structure and optical properties of $\text{A}_3\text{BGa}_3\text{Si}_2\text{O}_{14}$ Series of crystals, *Piezoelectrics and Acousto-optics*, v 27, n 3, June, 2005, p 280-282(EI)
2. 魏爱俭; 祁海峰; 连洁; 张瑞峰; 袁多荣; 王增梅; 叶丽娜, 新型压电材料— $\text{Sr}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ 单晶的光学性质, *Optical Properties of A Novel Piezoelectric $\text{Sr}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ Single Crystals*, 压电与声光, 2005 No.5, Vol27, 538-540 (EI)
3. Cheng Xiu-Feng, et al. Study on optical and thermal properties of $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ single crystals, *Piezoelectrics and Acousto-optics*, v 27, n 2, 2005, p 175-177+181 (EI)
4. Zhao Ming-lei, **Wang Zeng-mei**, et al. Temperature properties of piezoelectric constant of $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ piezoelectric crystal, *Journal of Synthetic crystal*, v 34, n1, p 65-69 (EI)
5. Lan, JH; Lu, GW; **Wang ZM**; Yuan DR, Raman scattering spectra of $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ (CNGS) crystals, *Phys. Stat. sol. (b)* 242(2005)1996-2004 (SCI,EI)
6. Duan XL, Yuan DR, Cheng XF, et al. **Wang ZM** et al., Microstructure and properties of $\text{Cu}^{2+}:\text{ZnAl}_2\text{O}_4/\text{SiO}_2$ nanocomposite glasses by sol-gel method, *Journal of the American Ceramic Society*, 88 (2005)399-403

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1. **Zengmei.Wang**, Duorong. Yuan, et al. Growth and dielectric properties of $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ crystals. *Journal of Alloy and Compounds* 370(2004)291-295 (SCI,EI)
2. **Zengmei.Wang**, Duorong. Yuan, et al. Growth and optical activity of $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ single crystal. *Appl. Phys. A* 78(2004)561-563 (SCI,EI)
3. **Zengmei.Wang**, Duorong. Yuan, et al. Study on the growth and characterization of $\text{Sr}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ single crystals, *Journal of Alloy and Compounds*. 373(2004)287-290 (SCI,EI)
4. **Zengmei.Wang**, Duorong. Yuan, et al. Crystal growth and optical properties of $\text{Dy}:\text{La}_3\text{Ga}_5\text{SiO}_{14}$ single crystals, *Journal of Crystal Growth* 263(2004)246-250 (SCI,EI)
5. **Zengmei.Wang**, Duorong. Yuan, et al. Study on the growth and optical activity of $\text{Sr}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ single crystals, *Materials Science and Engineering: B* 107(2004)194-197 (SCI,EI)
6. **Zengmei.Wang**, Duorong. Yuan, et al. Growth and optical activities of $\text{Sr}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ single crystals. *Journal of Crystal Growth* 263(2004)389-393 (SCI,EI)
7. **Zengmei.Wang**, Duorong. Yuan, et al., Preparation and Properties of a Novel Piezoelectric Single Crystal Material: $\text{Sr}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$. *Material Research Bulletin*, 39(2004)987-992 (SCI,EI)
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9. G. W. Lu, C. X. Li, W. C. Wang, **Z. M. Wang**, D. R. Yuan, and H. R. Xia Raman Scattering Spectra of $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ (LGS) crystals, *Phys. Stat. sol. (b)* 241(2) (2004)439-446 (SCI,EI)

10. 魏爱俭; 祁海峰; 袁多荣; 王增梅 Sr₃NbGa₃Si₂O₁₄ 压电晶体旋光性质的研究人工晶体学报, 33 (2) (2004) 205-508 (EI)
11. 赵明磊; 王矜奉; 袁多荣; 王增梅; 王春雷; 王渊旭 Ca₃NbGa₃Si₂O₁₄ 晶体的介电和压电特性, 物理学报, 53 (12) (2004) 4364-4368 (SCI, EI)
12. Sun ZH, Yuan DR, Li HQ, et al. **Wang ZM**, et al., Synthesis of yttrium aluminum garnet (YAG) by a new sol-gel method, **Journal of Alloys and Compounds**, 379 (1-2): L1-L3 OCT 6 2004
13. Duan XL, Yuan DR, Cheng XF, et al. **Wang ZM**, et al. sol-gel derived SiO₂-based glass, **OPTICAL MATERIALS**, 25 (2004) 65-69
14. Sun ZH, Yuan DR, Duan XL, et al. **Wang ZM**, et al. Preparation and characterization of Co²⁺-doped Y₃Al₅O₁₂ nano-crystal powders by sol-gel technique, **JOURNAL OF CRYSTAL GROWTH**, 260(2004)171-175

2003

1. **Z. Wang**, D. Yuan, et al., Crystal growth and thermal and optical properties of La₃Ga₅SiO₁₄ single crystals. Appl. Phys. A 77, (2003) 683-685. (SCI, EI)
2. **Zengmei Wang**, Duorong Yuan, et al., Crystal growth and characterization of La₃Ga₅SiO₁₄ single crystals. Optical Materials 23(2003)471-474 (SCI, EI)
3. **Z.M. Wang**, D.R. Yuan, et al., Studies on the growth and defects of La₃Ga₅SiO₁₄ (LGS) crystals. Cryst. Res. Technol. Vol.38, No.11 (2003) 974-978 (SCI, EI)
4. **Zengmei Wang**, Xiufeng Cheng, et al., Crystal growth and properties of Ca₃NbGa₃Si₂O₁₄ single crystals. Journal of Crystal Growth 249(2003)240-244 (SCI, EI)
5. **Zengmei Wang**, Duorong Yuan, et al. The growth and properties of Ca₃TaGa₃Si₂O₁₄ single crystals. Journal of Crystal Growth. 253(2003)378-382 (SCI, EI)
6. **Zengmei Wang**, Duorong Yuan, et al. Growth of a new ordered langasite structure compound Ca₃TaGa₃Si₂O₁₄ single crystal. Journal of Crystal Growth. 253(2003)398-403 (SCI, EI)
7. **Zengmei Wang**, Duorong Yuan, et al. Growth and characterization of Sr₃NbGa₃Si₂O₁₄ single crystals. Journal of Crystal Growth. 252(2003)236-240 (SCI, EI)
8. **Zengmei Wang**, Duorong Yuan, et al. Growth, thermal and optical properties of Sr₃NbGa₃Si₂O₁₄ single crystals. Journal of Crystal Growth. 258(2003)349-352 (SCI, EI)
9. **Zengmei Wang**, Duorong Yuan, et al., Growth and optical properties of Eu³⁺-doped La₃Ga₅SiO₁₄ single crystal. Journal of Crystal Growth. 255(2003)348-352 (SCI, EI)
10. **Zengmei Wang**, Duorong Yuan, et al. Crystal growth and spectroscopic properties of Er: La₃Ga₅SiO₁₄ single crystals. Journal of Crystal Growth. 257(2003)141-145 (SCI, EI)
11. **Wang, Zeng-Mei**; Yu, Wen-Tao; et al.: Crystal structure of Calcium Tantalum Gallium Silicate Oxide, Ca₃TaGa₃Si₂O₁₄ (CTGS). Zeitschrift für Kristallographie – New Crystal Structures NCS 218(2003)389-390 (SCI)
12. **Zengmei Wang**, Duorong Yuan, et al. Study on the growth and characterization of new piezoelectric crystal La₃Ga₅SiO₁₄ (LGS), Piezoelectrics and Acousto-optics, n 6, 2003, p 490-493 (in Chinese) (EI)
13. Duan XL, Yuan DR, et al. **Wang ZM**, et al. Optical absorption of Co²⁺-doped silicagel-derived glasses, **Optical Materials**, 23(1-2): 327-330 JUL-AUG 2003
14. Duan XL, Yuan DR, et al. **Wang ZM**, et al., Preparation and characterization of Co²⁺-doped ZnO-Al₂O₃-SiO₂ glass-ceramics by the sol-gel method, **Materials Research Bulletin**, 38 (4): 705-711 MAR 24 2003
15. Li ZF, Zhang PL, et al. **Wang ZM**, et al. Dielectric, elastic and piezoelectric properties of La₃Ga₅SiO₁₄ crystal MAR 2003
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1. Wang XQ, Xu D, et al. **Wang ZM**, et al. Spectroscopic and thermal behavior of ZnHg(SCN)₄, **Materials Research Bulletin**, 37 (11)(2002)1859-1871

课程教学:

- 1 Introduction of Advanced Engineering Materials, 全英文课程, 授课对象: 研究生。
- 2 无机材料物理与化学, 材料科学基础B, 材料科学与工程概论, 授课对象: 本科生
- 3 固态化学, 授课对象: 研究生

社会兼职:

Applied Physics Letters, Journal of the American Ceramic Society, Journal of Crystal Growth, Journal of Alloy and Compounds等学术期刊的审稿人。国家科学技术发明奖励评审专家