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简历:

赵祥永, 男, 博士, 研究员, 硕士生导师, 中国科学院上海硅酸盐研究所, 主要从事人工晶体与铁电材料的制备、结构、性能及器件应用研究。1977年6月出生于江苏, 1999年6月获学士学位, 2002-2003年在香港理工大学应用物理学系任研究助理, 2004年6月于中科院上海硅酸盐研究所获材料科学与工程博士学位, 2004年7月进入中科院上海硅酸盐研究所工作至今。

作为项目负责人先后承担国家自然科学基金、科技部高技术研究发展计划(863)课题、国家光电子晶体材料工程技术研究中心开放基金、上海硅酸盐研究所科技创新基金、上海科技启明星计划(A类)课题等; 作为科研骨干先后参加和完成10余项科技部、国家自然科学基金委、上海市科委科研项目。在J. Phys. Condens. Matter、Appl. Phys. A、Appl. Phys. Advanced Materials、Phys. Rev. B等学术期刊上发表学术论文100余篇, 参与撰写学术专著3部, 申请中国发明专利11项, 编写行业标准1项, 获第六届亚洲电子陶瓷会议(AMEC-6) “AMEC-6 Young Scientist Award” 和上海硅酸盐研究所“青年才俊奖”。

研究方向:

1. 铁电晶体生长与结构-性能关系
2. 基于压电材料的传感器、驱动器、换能器、集能器与相关系统
3. 光电材料及其在光传感器和探测系统中的应用

职称:

正高级

职务:

社会任职:

获奖及荣誉:

代表论著:

- 1)Wei Wang, Siu Wing Or, Qingwen Yue, Yaoyao Zhang, Jie Jiao, Bo Ren, Di Lin, Chung Ming Leung, Xiangyong Zhao, Haosu Luo, Cylindrically shaped ultrasonic line fabricated using PIMNT/epoxy 1-3 piezoelectric composite, *Sensors and Actuators: Physical*, 2013, 192: 69-75.
- 2)Chundong Xu, Bo Ren, Zhu Liang, Jianwei Chen, Haiwu Zhang, Qingwen Yue, Qing Xu, Xiangyong Zhao, Haosu Luo, Nonlinear output properties of cantilever driving low frequency piezoelectric energy harvester, *Applied Physics Letters*, 2012, 101(22): 223503 (1-4).
- 3)Chundong Xu, Bo Ren, Wenning Di, Zhu Liang, Jie Jiao, Lingying Li, Long Li, Xiangyong Zhao, Haosu Luo, Dong Wang, Cantilever driving low frequency piezoelectric harvester using single crystal material $0.71\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-0.29\text{PbTiO}_3$, *Applied physics letters*, 2012, 101(3): 033502 (1-4).
- 4)Jie Jiao, Wei Wang, Lingying Li, Yuting Liu, Bo Ren, Hao Deng, Jianwei Chen, Chundong Xu, Wenning Di, Xiangyong Zhao, Haosu Luo, Weiping Jing, An improved magn detection unit based on length-magnetized Terfenol-D and width-polarized ternary $0.35\text{Pb}(\text{In}_{1/2}\text{Nb}_{1/2})\text{O}_3-0.35\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3-0.30\text{PbTiO}_3$, *Applied Physics Letters*, 2012 043909(1-5).
- 5)Xiangyong Zhao, Xiao Wu, Linhua Liu, Haosu Luo, Nibert Neumann, Ping Yu, Pyroelectric performances of relaxor based ferroelectric single crystals and infrared detectors *Physica Status Solidi A*, 2011, 208(5): 1061 - 1067.
- 6)Qinhui Zhang, Xiangyong Zhao, Haosu Luo, Crystal growth and electric properties of $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3\text{-BaTiO}_3$ single crystals, *《Lead-free Piezoelectrics》*, Springer, New York, 2011, pp: 337-351, ISBN: 978-1-4419-9597-1.
- 7)L. Luo, X. Zhao, H. Luo, Single Crystal PZN-PT, PMN-PT, PSN-PT and PIN-PT-based piezoelectric materials, *《Advanced piezoelectric materials: Science and technology》*,

8)Bo Ren, Siu Wing Or, Yaoyao Zhang, Qinhui Zhang, Xiaobing Li, Jie Jiao, Wei Wang, Da'an Liu, Xiangyong Zhao and Haosu Luo, Piezoelectric energy harvesting using mode $0.71\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3 - 0.29\text{PbTiO}_3$ single crystal cantilever, *Applied Physics Letters*, 2010, 96(8):083502(1-3).

9)Q. H. Zhang, Y. Y. Zhang, F. F. Wang, Y. J. Wang, D. Lin, X. Y. Zhao, H. S. Luo, W. W. Ge, D. Viehland, Enhanced piezoelectric and ferroelectric properties in $\text{MNa}_{0.5}\text{Bi}_{0.5}\text{TiO}_3 - \text{BaTiO}_3$ single crystals, *Applied Physics Letters*, 2009, 95(10):102904 (1-3).

10)Y. M. Jia, H. S. Luo, X. Y. Zhao, F. F. Wang, Giant magnetoelectric response from the combination of piezoelectric/magnetostrictive laminated composite with a piezotransformer, *Advanced Materials*, 2008, 20: 4776-4779.

11)C. Stock, Guangyong Xu, P. M. Gehring, H. Luo, X. Zhao, H. Cao, J. F. Li, D. Viehland, G. Shirane, Neutron and x-ray diffraction study of cubic [111] field-cooled $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$, *Physical Review B*, 2007, 76(6): 064122(1-11).

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13)Xinming Wan, Haosu Luo, Xiangyong Zhao, D. Y. Wang, H. L. W. Chan, and C. L. Choy, Refractive indices and linear electro-optic properties of $(1-x)\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ single crystals, *Applied Physics Letters*, 2004, 85(22): 5233-3235.

14)Xiangyong Zhao, Jie Wang, H.L.W. Chan, C.L. Choy and Haosu Luo, Effect of a bias field on the dielectric properties of $0.69\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ - 0.31PbTiO_3 single crystals