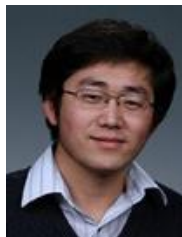




Dr. Liang Qiao

Professor
School of Materials
Director, Condensed Matter Physics Institution
University of Electronic Science & Technology of
China (UESTC)
Tel: +44 (0)161 306 3655
Email: liang.qiao@uestc.edu.cn



Google Scholar: <http://scholar.google.co.uk/citations?user=WgAoxPAAAAAJ&hl=en>

Research ID: <http://www.researcherid.com/rid/A-8165-2012>

Publons: <https://publons.com/researcher/2758173/liang-qiao/>

Education

- 2009 PhD, Materials Science & Engineering, Beihang University, China
- 2003 BS, Materials Science & Engineering, Beihang University, China

Professional Experience

- 2017–p Professor, School of Physics, UESTC, China
- 2014–2016 Lecturer, School of Materials, The University of Manchester (UoM), UK
- 2011–2014 Research Fellow, Oak Ridge National Laboratory (ORNL), USA
- 2009–2011 Research Fellow, Pacific Northwest National Laboratory (PNNL), USA
- 2005–2009 Research & Teaching Assistant, Beihang University (BHU), China

Honors, Awards and Grants

- 2016 China 1000-Talent Young Project
- 2016 UoM Dean's Scholarship Award
- 2016 Royal Society Research Grand
- 2015 EPSRC DTP Scholarship Award
- 2015 UoM EPS Research Starting Grant
- 2010 Excellent BHU Ph.D. Thesis Award
- 2008 Competitive Innovation Foundation BHU Research Grant

Professional and Synergistic Activities

- 2016–p Editorial Board *Scientific Reports*
- 2015–p Proposal reviewer Stanford Synchrotron Radiation Lightsource (SSRL)
- 2015–p Editorial Board *Journal of Materials Science and Engineering A & B*
- 2014–p Editorial Board *Frontiers in Materials* (Nature Publishing Group)
- 2012–p Guest Editor *Advances in Condensed Matter Physics* (Hindawi Publishing Corp.)
- 2010 Award Committee Gibson-Fawcett Award, Royal Society of Chemistry
- 2012–p Member Materials Research Society & American Ceramics Society
- 2010–p Reviewer for 30 international journals, *NanoLett.*, *Phys.Rev.Lett.*; *Phys.Rev.B*; *Sci. Rep.*; *Appl.Phys.Lett.*; *J.Appl.Phys.*; *J. Mater. Chem.*; *CrystEngComm*; *ACS Appl. Mater. & Int.*;

Research Interests

- Oxide thin-films and nanostructures
- Complex oxides toward spintronics and energy harvesting & conversion
- Surface and interface phenomena
- Magnetism, ferroelectricity and multiferroics
- Corporative electronic and magnetic behaviors of correlated and doped perovskites
- Band gap engineering, photovoltaic, and electro-optical response in oxide nanostructures



Publications and Patents

• **Book chapters**

1. **L. Qiao*** and X. F. Bi, “Preparation, Structure and Performance of High Quality Metal-Oxide Composite Electrode Film for Ferroelectric Film Devices,” pp. 285-310, Chapter 8 in *Advances in Materials Sciences Research*, Vol. 8, ed., Maryann C. Wytherst, ISBN: 978-1-61209-822-7, Nova Science Publishers, Inc., Hauppauge, NY, 2011.
2. **L. Qiao*** and X. F. Bi, “Epitaxial Integration of Ferroelectric BaTiO₃ with Semiconductor Si: From a Structure-Property Correlation Point of View,” pp. 363-388, Chapter 18 in *Ferroelectrics – Material Aspects*, ed., Mickaël Lallart, ISBN: 978-953-307-182-4, InTech Open Access Publisher, Vienna, Austria, 2011.
3. Jiantuo Gan and **L. Qiao***, “Colloidal Quantum Dots for Highly Efficient Photovoltaics,” pp. 363-388, Chapter 8 in *Quantum Dot Optoelectronic Devices*, ed., Mickaël Lallart, ISBN: 978-3-030-35812-9, Nature-Springer - SPI Global, based in Pondicherry, India, 2020.

• **Referred journals**

1. Ning Wang, Menglu Li, Haiyan Xiao, Xiaotao Zu*, and **Liang Qiao***, “Layered LaCuOSe: A Promising Anisotropic Thermoelectric Material”, *Physical Review Applied* 13, 024038 (2020).
2. Mei Zhao, Jianwei Su, Yang Zhao, Peng Luo, Fakun Wang, Wei Han, Yuan Li, Xiaotao Zu, **Liang Qiao***, Tianyou Zhai*, “Sodium - Mediated Epitaxial Growth of 2D Ultrathin Sb₂Se₃ Flakes for Broadband Photodetection”, *Advanced Functional Materials* 1909849 (2020).
3. Ye Shen, Xuan Fang, Xiang Ding, Hai Yan Xiao*, Xia Xiang*, Gui Xia Yang, Ming Jiang, Xiao Tao Zu, Liang Qiao , “Structural Features and Photoelectric Properties of Si-Doped GaAs under Gamma Irradiation”, *Nanomaterials* (2020).
4. Ze Wang; Jiantuo Gan; Xiaodong Liu; Hangbo Shi; Qi Wei; Qiugui Zeng; **Liang Qiao**; and Yonghao Zheng*, “Over 1 μm electron-hole diffusion lengths in CsPbI₂Br for high efficient solar cells”, *Journal of Power Sources* 454, 227913 (2020).
5. Xiang Ding, Sa Zhang, Mei Zhao, Yang Xiang, Kelvin H. L. Zhang, Xiaotao Zu*, Sean Li, **Liang Qiao***, “NbS₂: A Promising P-type Ohmic Contact for Two-Dimensional Materials”, *Physical Review Applied* 12, 064061 (2019).
6. Xiaoqiang Wu, Jingxuan He, Meng Zhang, Zhongran Liu, Sa Zhang, Zhao Yang, Tian Li, Fapei Zhang, Zheng Peng, Ningyan Cheng, Jiaye Zhang, Xiaojian Wen, Yanwu Xie, He Tian, Liang Cao, Lei Bi, Yi Du, Hongliang Zhang, Jun Cheng, Xuguang An, Yimin Lei, Huahai Shen, Jiantuo Gan, Xiaotao Zu, Sean Li, **Liang Qiao***, “Binary Pd/Amorphous-SrRuO₃ Hybrid Film for High Stability and Fast Activity Recovery Ethanol Oxidation Electrocatalysis”, *Nano Energy* 67, 104247 (2019).
7. XC Huang, JY Zhang, M Wu, S Zhang, HY Xiao, WQ Han, T-L Lee, A Tadich, D-C Qi, **L Qiao***, L Chen, KHL Zhang *, “Electronic structure and p-type conduction mechanism of spinel cobaltite oxide thin films”, *Physical Review B* 100, 115301 (2019).
8. Chao Cai, Shaobo Han, Wei Liu, Kai Sun, **Liang Qiao***, Sean Li, Xiaotao Zu, “Tuning catalytic performance by controlling reconstruction process in operando condition”, *Applied Catalysis B: Environmental* 260, 118103 (2019).
9. Menglu Li, Ning Wang, Ming Jiang, Haiyan Xiao, Haibin Zhang, Zijiang Liu, Xiaotao Zu, **Liang Qiao***, “Improved thermoelectric performance of bilayer Bi₂O₂Se by the band convergence approach”, *Journal of Materials Chemistry C* 7, 11029 (2019).
10. Bilawal Khan, Fazal Raziq, M Bilal Faheem, M Umar Farooq, Sadam Hussain, Farman Ali, Abid Ullah, Abdurashid Mavlonov, Yang Zhao, Zhongran Liu, He Tian, Huahai Shen, Xiaotao Zu, Sean Li, Haiyan Xiao, Xia Xiang, **Liang Qiao***, “Electronic and nanostructure engineering of bifunctional MoS₂ towards exceptional visible-light photocatalytic CO₂ reduction and pollutant degradation”, *Journal of Hazardous Materials* 381, 120972 (2019).
11. Ning Wang, Menglu Li, Haiyan Xiao, Hengfeng Gong, Zijiang Liu, Xiaotao Zu, **Liang Qiao***, “Optimizing the Thermoelectric Transport Properties of Bi₂O₂Se Monolayer via Biaxial Strain”, *Physical Chemistry Chemical Physics* 21, 15097 (2019).
12. Yang Zhao, Mei Zhao, Xiang Ding, Zhongran Liu, He Tian, Huahai Shen, Xiaotao Zu, Sean Li, **Liang Qiao***, “One-step colloid fabrication of nickel phosphides nanoplate/nickel foam hybrid electrode for high-performance asymmetric supercapacitors”, *Chemical Engineering Journal* 373, 1132 (2019).
13. Jiantuo Gan, Jingxuan He, Robert LZ Hoye, Abdurashid Mavlonov, Fazal Raziq, Judith L MacManus-Driscoll, Xiaoqiang Wu, Sean Li, Xiaotao Zu, Yiqiang Zhan, Xiaoyong Zhang, **Liang Qiao***, “α-CsPbI₃ Colloidal Quantum Dots: Synthesis, Photodynamics and Photovoltaic Applications”, *ACS Energy Letters* 4, 1038 (2019).
14. CM Tian, Ming Jiang, Ding Tang, **Liang Qiao**, HY Xiao, Freddy E Oropeza, Jan Philipp Hofmann, Emiel JM Hensen, Anton Tadich, Weiwei Li, DC Qi, KHL Zhang*, “Elucidating the electronic structure of CuWO₄ thin films for enhanced photoelectrochemical water splitting”, *Journal of Materials Chemistry A* 7, 11895 (2019).
15. Tianying He, Yongjun Li, Zhifei Zhou, Cheng Zeng, **Liang Qiao**, Changyong Lan, Yi Yin, Chun Li, Yong Liu, “Synthesis of large-area uniform MoS₂ films by substrate-moving atmospheric pressure chemical vapor deposition: From monolayer to multilayer”, *2D Materials* 6, 025030 (2019).
16. Guixia Yang, Yuanlong Pang, Yuqing Yang, Jianyong Liu, Shuming Peng, Gang Chen, Ming Jiang, Xiaotao Zu, Xuan Fang, Hongbin Zhao, **Liang Qiao***, Haiyan Xiao*, “High-Dose Electron Radiation and Unexpected Room-Temperature Self-



- Healing of Epitaxial SiC Schottky Barrier Diodes”, *Nanomaterials* 9, 194 (2019).
17. Ming Jiang, Haiyan Xiao, Shuming Peng, Guixia Yang, Hengfeng Gong, Zijiang Liu, **Liang Qiao**, Xiaotao Zu*, “Ab initio molecular dynamics simulation of the radiation damage effects of GaAs/AlGaAs superlattice”, *Journal of Nuclear Materials* 516, 228 (2019).
 18. Chao Cai, Yaqun Mi, Shaobo Han, Qi Wang, Wei Liu, Xiaoqiang Wu, Zhi Zheng, Xiang Xia, **Liang Qiao***, Weilie Zhou, Xiaotao Zu*, “Engineering ordered dendrite-like nickel selenide as electrocatalyst”, *Electrochimica Acta* 237, 1082 (2019).
 19. Ming Jiang, Haiyan Xiao, Shuming Peng, **Liang Qiao**, Guixia Yang, Zijiang Liu, Xiaotao Zu., “First-Principles Study of Point Defects in GaAs/AlAs Superlattice: the Phase Stability and the Effects on the Band Structure and Carrier Mobility”, *Nanoscale Research Letters* 13, 301 (2018).
 20. Rama K Vasudevan, Hemant Dixit, Alexander Tselev, **Liang Qiao**, Tricia L Meyer, Valentino R Cooper, Arthur P Baddorf, Ho Nyung Lee, Panchapakesan Ganesh, Sergei V Kalinin, “Surface reconstructions and modified surface states in $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ ”, *Physical Review Materials* 2, 104418 (2018).
 21. S Zhang, HY Xiao, SM Peng, GX Yang, ZJ Liu, XT Zu, S Li, DJ Singh, LW Martin, **L Qiao***, “Band-Gap Reduction in Superlattices(BiCrO_3) m / (BiFeO_3) n : Designing Low-Band-Gap Ferroelectrics”, *Physical Review Applied* 10, 044004 (2018).
 22. Ming Jiang, Haiyan Xiao, Shuming Peng, Guixia Yang, Zijiang Liu, **Liang Qiao**, Xiaotao Zu, “A Theoretical Simulation of the Radiation Responses of Si, Ge, and Si/Ge Superlattice to Low-Energy Irradiation”, *Nanoscale Research Letters* 13, 133 (2018).
 23. Shuangyue Wang, Hongwei Yan, Dengji Li, **Liang Qiao**, Shaobo Han, Xiaodong Yuan, Wei Liu, Xia Xiang, Xiaotao Zu, “TEM and STEM studies on the cross-sectional morphologies of Dual-/Tri-layer broadband SiO_2 antireflective films”, *Nanoscale Research Letters* 13, 49 (2018).
 24. F. Raziq, M. Humayun, A. Ali, T.T. Wang, A. Khan, Q.Y. Fu, L. Wei, H.P. Zeng, Z.P. Zheng, B. Khan, H.H. Shen, X.T. Zu, S. Li, **L. Qiao ***, “Synthesis of S-Doped Porous $\text{g-C}_3\text{N}_4$ by Using Ionic Liquids and Subsequently Coupled with Au- TiO_2 for Exceptional Cocatalyst-Free Visible-Light Catalytic Activities”, *Applied Catalysis B: Environmental* 237, 1082 (2018).
 25. **L Qiao***, S Zhang, HY Xiao, DJ Singh, KHL Zhang, ZJ Liu, XT Zu, S Li., “Orbital controlled band gap engineering of tetragonal BiFeO_3 for optoelectronic applications”, *Journal of Materials Chemistry C* 6, 1239 (2018).
 26. K.H.L. Zhang, R. Wu, F. Tang, W. Li, F.E. Oropeza, **L. Qiao *** et al., “Electronic Structure and Band Alignment at the NiO and SrTiO_3 p-n Heterojunctions”, *ACS Applied Materials & Interfaces* 9, 26549 (2017).
 27. J.H. Jang, Y.M. Kim, Q. He, R. Mishra, **L. Qiao**, M.D. Biegalski, A.R. Lupini, Sokrates T Pantelides et al. , “In-Situ Observation of Oxygen Vacancy Dynamics and Ordering in the Epitaxial LaCoO_3 System,” *ACS Nano* 11, 6942 (2017).
 28. K.A. Stoerzinger, O. Diaz-Morales, M. Kolb, R.R. Rao, R. Frydendal, L. Qiao, Xiao Renshaw Wang, Niels Bendtsen Halck, et al., “Orientation-Dependent Oxygen Evolution on RuO_2 without Lattice Exchange,” *ACS Energy Letters* 2, 876 (2017).
 29. A. Tselev, R. K. Vasudevan, A. G. Gianfranceso, **L. Qiao**, T. L. Meyer, H. N. Lee, M. D. Biegalski, et al., “Growth Mode Transition in Complex Oxide Heteroepitaxy: Atomically Resolved Studies,” *Crystal Growth & Design* (2016).
 30. C. Y. Lu, K. Jin, L. K. Beland, F. F. Zhang, T. N. Yang, **L. Qiao**, Y. Zhang, H. B. Bei, et al., “Direct Observation of Defect Range and Evolution in Ion-Irradiated Single Crystalline Ni and Ni Binary Alloys,” *Scientific Reports* 6, 19994 (2016).
 31. **L. Qiao**, J. H. Jang, D. J. Singh, Z. Gai, H. Y. Xiao, A. Mehta, Z. X. Feng, H. Zhou, S. Li, A. Borisevich, and M. D. Biegalski, “Dimensionality Control of Octahedral Symmetry-Mismatch and Magnetic Functionality In Epitaxial Correlated Cobaltite Heterostructures,” *Nano Letters* 15, 4677 (2015). **ANL/APS research highlight**
 32. Z. X. Feng, X. Chen, **L. Qiao**, A. L. Lipson, T. T. Fister, L. Zeng, C. J. Kim, T. H. Yi, N. Sa, D. L. Proffit, A. K. Burrell, J. Cabana, B. J. Ingram, M. D. Biegalski, M. J. Bedzyk, and P. Fenter, “Phase-Controlled Electrochemical Activity of Epitaxial Mg-Spinel Thin Films,” *ACS Applied Materials & Interfaces* 7, 28438 (2015).
 33. A. Tselev, R. K. Vasudevan, A. G. Gianfranceso, **L. Qiao**, P. Ganesh, T. L. Meyer, H. N. Lee, et al., “Surface Control of Epitaxial Manganite Films via Oxygen Pressure,” *ACS Nano* 9, 4316 (2015). ***ORNL research highlight**
 34. Q. He, R. Ishikawa, A. R. Lupini, L. Qiao, E. J. Moon, O. Ovchinnikov, S. J. May, et al., “Towards 3D Mapping of BO_6 Octahedron Rotations at Perovskite Heterointerfaces, Unit Cell by Unit Cell,” *ACS Nano* 9, 8412 (2015).
 35. M. D. Biegalski, **L. Qiao**, Y. J. Gu, A. Mehta, Q. He, Y. Takamura, A. Borisevich, and L. Q. Chen “Impact of Symmetry on the Ferroelectric Properties of CaTiO_3 Thin Films,” *Applied Physics Letters* 106, 162904 (2015).
 36. G. X. Cao, D. J. Singh, X.-G. Zhang, G. Samolyuk, **L. Qiao**, C. Parish, K. Jin, Y. W. Zhang, H. W. Guo, et al., “Ferromagnetism and Nonmetallic Transport of Thin-Film $\alpha\text{-FeSi}_2$: A Stabilized Metastable Material,” *Physical Review Letters* 114, 147202 (2015). ***ORNL/CNMS research highlight**
 37. K H L Zhang, Y Du, P V Sushko, M E Bowden, V Shutthanandan, **L Qiao**, G X Cao, Z Gai, S Sallis, et al., “Electronic and magnetic properties of epitaxial perovskite $\text{SrCrO}_3(001)$,” *Journal of Physics: Condensed Matter* 27, 245605(2015).
 38. **L. Qiao**, H. Y. Xiao, W. J. Weber, and M. D. Biegalski, “Coexistence of epitaxial lattice rotation and twinning tilt induced by surface symmetry mismatch,” *Applied Physics Letters* 104, 221602 (2014).
 39. **L. Qiao**, W. Li, H. Y. Xiao, H. M. Meyer, X. L. Liang, N. V. Nguyen, et al., “Electronic Structure and Band Alignment at Epitaxial Spinel/Perovskite Heterojunction,” *ACS Applied Materials & Interfaces* 6, 14338 (2014).
 40. X. Xiang,* **L. Qiao**,* H.Y. Xiao, F. Gao, S. Li,* X.T. Zu, W. L. Zhou, “Effects of surface defects on two-dimensional electron gas at $\text{NdAlO}_3/\text{SrTiO}_3$ interface,” *Scientific Reports*, 4, 5477 (2014).
 41. K. A. Stoerzinger, **L. Qiao**, M. D. Biegalski, and Y. Shao-Horna, “Orientation-Dependent Oxygen Evolution Activities of Rutile IrO_2 and RuO_2 ,” *Journal of Physical Chemistry Letters* 5, 1636 (2014).
 42. **L. Qiao**, H. Y. Xiao, H. M. Meyer, J. N. Sun, C. M. Rouleau, A. A. Puretzky, D. B. Geohegan, I. Ivanov, M. Yoon, W.J. Weber, and M. D. Biegalski, “Nature of The Band Gap and Origin of The Electro- / Photo- Activity of Co_3O_4 ,” *Journal of*



- [Materials Chemistry C](#) **1**, 4628 (2013). * **CNMS research highlight**
43. L. Qiao, K. H. L. Zhang, M. E. Bowden, T. Varga, V. Shutthanandan, R. Colby, Y. Du, B. Kabius, P. V. Sushko, et al., “The Impacts of Cation Stoichiometry and Substrate Surface Quality on Nucleation, Structure, Defect Formation, and Intermixing in Complex Oxide Heteroepitaxy – LaCrO₃ on SrTiO₃(001),” [Advanced Functional Materials](#) **23**, 2953 (2013).
 44. L. Qiao, H. Y. Xiao, S. M. Heald, M. E. Bowden, T. Varga, G. J. Exarhos, M. D. Biegalski, I. N. Ivanov, W. J. Weber, T. C. Droubay, and S. A. Chambers, “The Impact of Crystal Symmetry on the Electronic Structure and Functional Properties of Complex Lanthanum Chromium Oxides,” [Journal of Materials Chemistry C](#) **1**, 4527 (2013).
 45. P. V. Sushko, L. Qiao, M. Bowden, T. Varga, G. Exarhos, and S. A. Chambers, “Multiband Optical Absorption in Thin Film LaCrO₃ Controlled by Lattice Strain,” [Physical Review Letters](#) **110**, 077401 (2013). * **PNNL research highlight**
 46. R. Colby, L. Qiao, K.H.L. Zhang, V. Shutthanandan, J. Ciston, B. Kabius, S.A. Chambers, “Cation intermixing and electronic deviations at the insulating LaCrO₃/SrTiO₃(001) interface,” [Physical Review B](#) **88**, 155325 (2013).
 47. A. Tselev, P. Ganesh, L. Qiao, W. Siemons, Z. Gai, M. D. Biegalski, A. P. Baddorf, and S. V. Kalinin, “Oxygen Control of Atomic Structure and Physical Properties of SrRuO₃ surfaces,” [ACS Nano](#) **7**, 4403 (2013). * **ORNL research highlight**
 48. L. Qiao, T. C. Droubay, T. Varga, M. E. Bowden, V. Shutthanandan, Z. Zhu, et al., “Epitaxial Growth, Structure and Intermixing at the LaAlO₃/SrTiO₃ Interface as the Film Stoichiometry is Varied,” [Physical Review B](#) **83**, 085408 (2011).
 49. S. A. Chambers, L. Qiao, T. C. Droubay, et al. , “Band Alignment, Build-in Potentials and the Absence of Conductivity at the LaCrO₃/SrTiO₃ Heterojunction,” [Physical Review Letters](#) **107**, 206802 (2011). * **PNNL research highlight**
 50. L. Qiao, T. C. Droubay, M. E. Bowden, V. Shutthanandan, T. C. Kaspar, S. A. Chambers, “LaCrO₃ Heteroepitaxy on SrTiO₃ (001) by Molecular Beam Epitaxy,” [Applied Physics Letters](#) **99**, 061904 (2011).
 51. L. Qiao, T. C. Droubay, T. C. Kaspar, et al. , “Cation Mixing, Band Offsets and Electrical Fields at LaAlO₃/SrTiO₃ (001) Heterojunction with variable La:Al atom ratio,” [Surface Science](#) **605**, 1381 (2011). * **PNNL/EMSL research highlight**
 52. L. Qiao and X. F. Bi, “Dielectric Phase Transition and Relaxor Behavior in BaTiO₃/LaNiO₃ Superlattice,” [CrystEngComm](#) **13**, 1693 (2011) * **Royal Society of Chemistry Hot Article**
 53. L. Qiao and X. F. Bi, “Enhanced Ferroelectricity of BaTiO₃ Film by Optimizing its Conducting Electrode Layer,” [Journal of Materials Chemistry](#) **21**, 6280 (2011).
 54. L. Qiao and X. F. Bi, “Direct Observation of Ni³⁺ and Ni²⁺ in Correlated LaNiO_{3-δ} Films,” [Europhysics Letters](#) **93**, 57002 (2011).
 55. L. Qiao and X. F. Bi, “Direct Observation of Oxygen Vacancy and Its Effect on the Microstructure, Electronic and Transport Properties of Sputtered LaNiO_{3-δ} Films on Si Substrates,” [Thin Solid Films](#) **519**, 943 (2010).
 56. L. Qiao, T. C. Droubay, V. Shutthanandan, et al. , “Thermodynamic Instability at the Stoichiometric LaAlO₃/SrTiO₃(001) Interface,” [Journal of Physics: Condensed Matter](#) **22**, 312201 (2010). * **Institute of Physics 2010 Highlights**
 57. T. C. Droubay, L. Qiao, T. C. Kaspar, M. H. Engelhard, V. Shutthanandan, S. A. Chambers, “Nonstoichiometric Material Transfer in the Pulsed Laser Deposition of LaAlO₃,” [Applied Physics Letters](#) **97**, 124105 (2010).
 58. L. Qiao and X. F. Bi, “Origin of Compressive Strain and Phase Transition Characteristics of Thin BaTiO₃ Film Grown on LaNiO₃/Si Substrate,” [Physics Status Solidi A](#) **207**, 2511 (2010).
 59. S. A. Chambers, M. H. Engelhard, V. Shutthanandan, Z. Zhu, T. C. Droubay, L. Qiao, P. V. Sushko, T. Feng, H. D. Lee, T. Gustafsson, E. Garfunkel, A. Shah, J.-M. Zuo, Q. M. Ramasse, “Intermixing, Instability and Electronic Structure at the Epitaxial LaAlO₃/SrTiO₃(001) Heterojunction,” [Surface Science Reports](#) **65**, 317 (2010).
 60. L. Qiao and X. F. Bi, “Dielectric Behavior of BaTiO₃-Ni Composite Ferroic Films,” [Applied Physics A](#) **95**, 733 (2009).
 61. L. Qiao and X. F. Bi, “Effect of Different Buffer Layers on the Microstructure and Dielectric Properties of Different Buffer Layers on the Microstructure and Dielectric Properties of BaTiO₃ Thin Films Grown on Si Substrates,” [Journal of Alloys and Compounds](#) **477**, 560 (2009).
 62. L. Qiao and X. F. Bi, “Effect of LaNiO₃ Buffer Layer Thickness on the Microstructure and Electrical Properties of (100)-Oriented BaTiO₃ Thin Films on Si Substrate,” [Thin Solid Films](#) **317**, 3784 (2009).
 63. L. Qiao and X. F. Bi, “Microstructural Orientation, Strain State and Diffusive Phase Transition of Pure Argon Sputtered BaTiO₃ Film,” [Journal of Physics D: Applied Physics](#) **42**, 175508 (2009).
 64. L. Qiao and X. F. Bi, “Microstructure and Grain Size Dependence of Ferroelectric Properties of BaTiO₃ Thin Films on LaNiO₃ Buffered Si,” [Journal of European Ceramic Society](#) **29**, 1995 (2009).
 65. L. Qiao and X. F. Bi, “Nanostructure and Performance of Pt-LaNiO₃ Composite Film for Ferroelectric Film Devices,” [Acta Materialia](#) **57**, 4109 (2009).
 66. L. Qiao and X. F. Bi, “Dielectric Response and Structure of In-Plane Tensile Strained BaTiO₃ Thin Films Grown on the LaNiO₃ Buffered Si Substrate,” [Applied Physics Letters](#) **92**, 062912 (2008).
 67. L. Qiao and X. F. Bi, “Domain Configuration and Phase Transition for BaTiO₃ Thin Films on Tensile Si Substrates,” [Journal of Crystal Growth](#) **310**, 5327 (2008).
 68. L. Qiao and X. F. Bi, “Effect of Substrate Temperature on the Microstructure and Transport Properties of Highly (100)-Oriented LaNiO₃-delta Films by Pure Argon Sputtering,” [Journal of Crystal Growth](#) **310**, 3653 (2008).
 69. L. Qiao and X. F. Bi, “Evaluation of Magnetoelectric Coupling in a BaTiO₃-Ni Composite Ferroic Film by Impedance Spectroscopy,” [Applied Physics Letters](#) **92**, 214101 (2008).
 70. L. Qiao and X. F. Bi, “Microstructure and Electrical Properties of the Conductive Pt-LaNiO₃ Composite Films Deposited with Co-Sputtering,” [Applied Surface Science](#) **255**, 3170 (2008).
 71. L. Qiao and X. F. Bi, “Microstructure and Ferroelectric Properties of BaTiO₃ Films on LaNiO₃ Buffer Layers by RF Sputtering,” [Journal of Crystal Growth](#) **310**, 2780 (2008).

72. **L. Qiao** and X. F. Bi, "Strain State, Microstructure and Electrical Transport Properties of LaNiO₃ Films Grown on Si Substrates," *Journal of Physics D: Applied Physics* **41**, 195407 (2008).
73. **L. Qiao** and X. F. Bi, "Crystallographic Texture of MgO and its effect on the growth of BaTiO₃ thin films by RF sputtering," *Materials Science Forum* 546-549, 2175(2007).
74. X. H Cheng, **L. Qiao**, X. F. Bi, "Preparation and Microstructure of Highly-Oriented LaNiO₃ Thin Films by RF Sputtering Method," *Chinese Journal of Aeronautics* **19**, S142 (2006).
75. F. S. Lu, **L. Qiao**, X. F. Bi, "Magnetic and Mechanical Properties of FeSi Alloys with High Si Content," *Transactions of Nonferrous Metals Society of China* **16**, S81 (2006).