

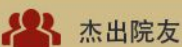
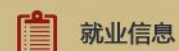


师资队伍

教师名录

教授兼博士生导师
教授、研究员
副教授、副研究员
讲师、助理研究员
实验中心教职工
学院机关教职工

人才招聘



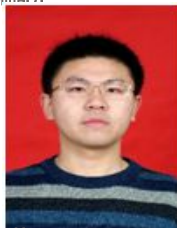
教授、研究员

当前位置是: 首页 师资队伍 教师名录 教授、研究员

鲁颖炜

点击率: 2659 作者: 来源: 时间: 2017-12-06

教师简介



姓名: 鲁颖炜
职称: 研究员
职务: 系副主任
所属系: 无机与粉体材料系
邮箱: luyw@hfut.edu.cn
电话:

个人简历:

2013-今 合肥工业大学 材料科学与工程学院 研究员, 黄山青年学者
2011-2012 丹麦技术大学 物理系 博士后
2008-2011 奥胡斯大学 物理与天文系 博士后
2002-2008 天津大学 材料科学与工程学院 硕士、博士
1997-2001 合肥工业大学 材料科学与工程学院 学士

主要研究领域、方向:

无机纳米光电材料
包括表面等离子体增强的石墨烯复合光电材料、光敏材料以及太阳能电池材料

研究成果(代表性成果):

- 表面等离子材料
Applied Physics Letters 108, 153113 (2016); Proceedings of SPIE 10028, 1002808 (2016); Optics Letters 38, 3838 (2013); Optics Express 20, 24614 (2012)
- 纳米材料间的能量传输
Journal of Alloys and Compounds 676, 428 (2016); Physical Review B 84, 085403 (2011); Applied Physics Letters 97, 141903 (2010)
- 新型硅基纳米发光材料
Chemistry of Materials 20, 3892 (2008); Applied Physics Letters 90, 241910 (2007); Journal of Applied Physics 102, 013518 (2007); Journal of Applied Physics 100, 063512 (2006); Semiconductor Science and Technology 21, 498 (2006); Applied Physics Letters 86, 171905 (2005)

目前承担科研项目:

主持:
1. 黄山青年学者启动基金
2. 国家自然科学基金面上项目: 纳米金属锡/石墨烯表面等离子耦合机制及其光电性能的影响
参与:
安徽省科技攻关项目: 高性能氮化铝粉体制备关键技术开发及应用

获奖情况:

2016 “三育人”先进个人
2014 合肥工业大学优秀班主任

著作论文(代表作):

表面等离子材料:

- Enhanced plasmon radiative intensity from Ag nanoparticles coupled to a graphene sheet. Applied Physics Letters 108, 153113 (2016).
- Photoluminescence of Ag/Sn quasi-core/shell nanoparticles. Proceedings of SPIE 10028, 1002808 (2016).
- Coupling of single quantum emitters to plasmons propagating on mechanically etched wires. Optics Letters 38, 3838 (2013).
- Propagation of plasmons in designed single crystalline silver nanostructures. Optics Express 20, 24614 (2012).

太阳能电池材料:

- Uniform, Stable, and Efficient Planar-Heterojunction Perovskite Solar Cells by Facile Low-Pressure Chemical Vapor Deposition under Fully Open-Air Conditions. ACS Applied Materials & Interfaces 7, 2708 (2015).

6. A simple in situ tubular chemical vapor deposition processing of large-scale efficient perovskite solar cells and the research on their novel roll-over phenomenon in J-V curves. *Journal of Materials Chemistry A* 3, 12443 (2015).
7. Si nanoparticle interfaces in Si/SiO₂ solar cell materials. *Journal of Applied Physics* 114, 164316 (2013).
硅基纳米发光材料:
8. High Er³⁺ luminescent efficiency in Er-doped SiO_x films containing amorphous Si nanodots. *Journal of Alloys and Compounds* 676, 428 (2016).
9. Er sensitization by a thin Si layer: Interaction-distance dependence. *Physical Review B* 84, 085403 (2011).
10. Erbium diffusion in silicon dioxide. *Applied Physics Letters* 97, 141903 (2010).
11. Thermalization of exciton states in silicon nanocrystals. *Applied Physics Letters* 95, 183107 (2009).
12. Silicon nanodisks via a chemical route. *Chemistry of Materials* 20, 3892 (2008).
13. Formation and luminescent properties of face-centered-cubic Si nanocrystals in silica matrix by magnetron sputtering with substrate bias. *Applied Physics Letters* 90, 241910 (2007).
14. Face-centered-cubic Si nanocrystals prepared by microsecond pulsed laser ablation. *Journal of Applied Physics* 102, 013518 (2007).
15. Influence of surface Si-Ag bonds on photoluminescence of porous silicon. *Journal of Applied Physics* 100, 063512 (2006).
16. Improvement of photoluminescence properties of porous silicon by silica passivation. *Applied Surface Science* 252, 4161 (2006).
17. Microporous silicon connected with silicon wires. *Semiconductor Science and Technology* 21, 498 (2006).
18. Improved visible photoluminescence from porous silicon with surface Si-Ag bonds. *Applied Physics Letters* 86, 171905 (2005).

