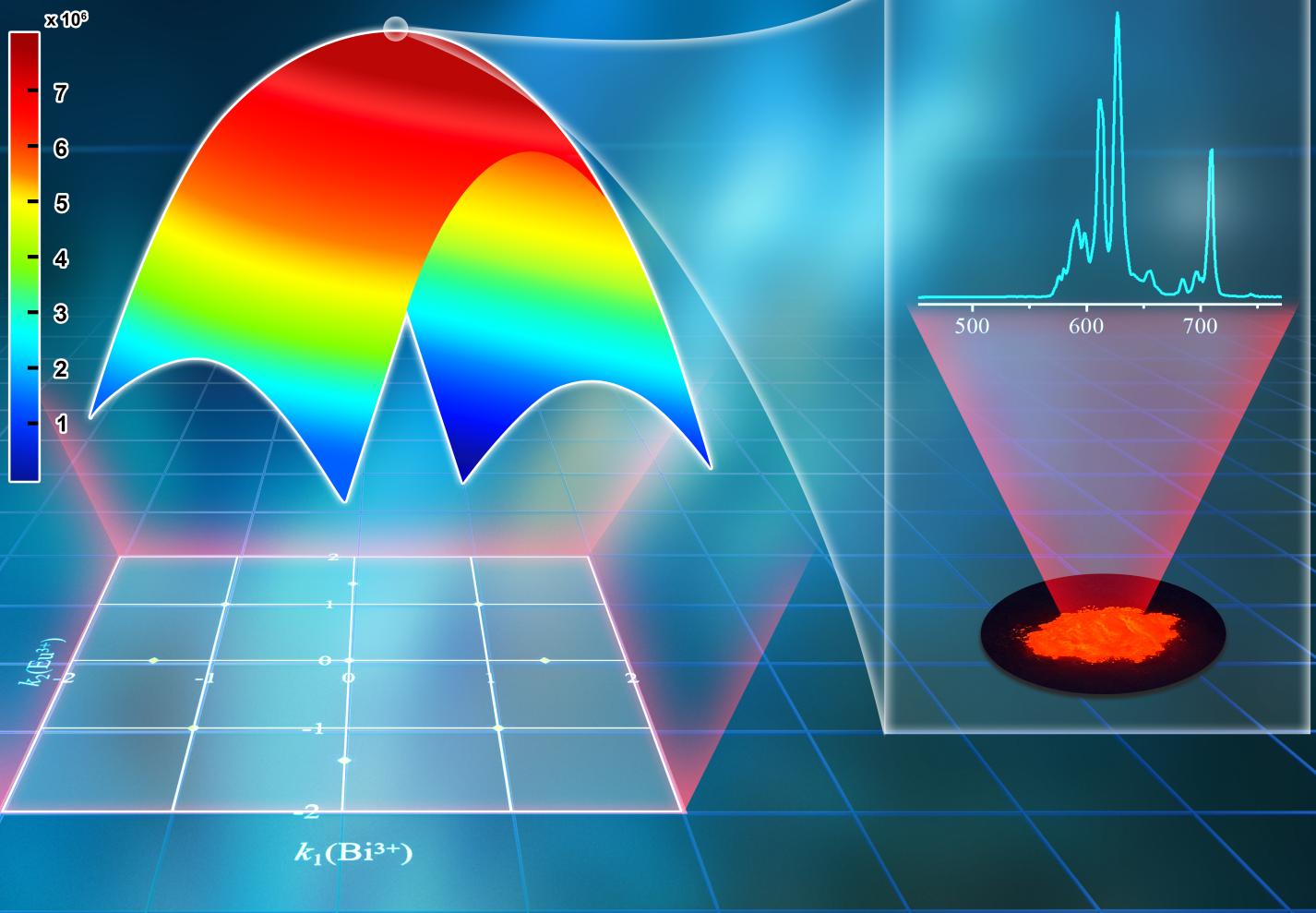


发光学報



2022年第43卷第5期

Chinese Journal of Luminescence

www.fgxb.org中科院长春光机所
CIOMP

中国科学院长春光学精密机械与物理研究所
中国物理学会发光分会
科学出版社

主办
出版



发光学报

FAGUANG XUEBAO

第43卷 第5期 2022年5月

目 次

·封面文章·

- 效应面优化模型获取 $\text{Y}_4\text{GeO}_8:\text{Bi}^{3+}, \text{Eu}^{3+}$ 红色荧光粉掺杂浓度 徐淑君, 陈 静, 陈礼元, ASHRAF Ghulam-Abbas, 李慧军, 郭 海 (633)

·特邀综述·

- 刺激响应型 AIE 水凝胶研究进展 温雪菲, 莎 仁, 王建国 (642)
 Mn^{4+} 激活荧光粉可用锰源与制备方法 王兆武, 屈 巧, 姬海鹏, 郝小非, 李金生 (662)

·材料合成及性能·

- 热稳定性优异的单一基质白光 $\text{Cs}_2\text{Li}_3\text{Sr}_2\text{B}_3(\text{PO}_4)_6:\text{Dy}^{3+}$ 荧光粉发光性能 王一航, 连雪珠, 徐华伟, 康晓娇, 吕 伟 (676)
 $\text{NaScF}_4:\text{Yb}^{3+}/\text{Er}^{3+}$ 纳米颗粒荧光温敏特性 相国涛, 杨梦琳, 刘 珊, 丁永希, 黄缤瑶, 张 羽, 吴洪秀, 胡欢欢 (684)
 $\text{Sn}^{2+}-\text{Mn}^{2+}$ 共掺杂 $\text{Gd}_2\text{O}_3-\text{Al}_2\text{O}_3-\text{SiO}_2$ 玻璃光致发光性能与能量传递 华哲浩, 唐 高, 魏钦华, 秦来顺, 蔡培庆, 林慧兴, 周真真, 钱 森, 王志刚 (691)
基于咪唑并[1,2-a]吡啶-三嗪的电子传输材料合成及性能 程之樵, 白科研, 籍少敏, 戴 雷, 聂 飞, 霍延平 (702)
 CdSe/CdS 量子点聚合物复合材料的水致荧光可逆特性 蔡俊虎, 王晨辉, 胡新培, 陈恩果, 徐 胜, 叶 芸, 郭太良 (714)
优化反式平面钙钛矿太阳电池性能的简便方法——利用 PEDOT:PSS 与 DMSO 共混空穴传输层 王亚凌, 杨利营, 李 岚, 印寿根 (725)

·器件制备及器件物理·

- 高速 1 550 nm 垂直腔面发射激光器研究进展 韩赛一, 田思聪, 徐汉阳, 潘绍驰, MANSOOR Ahamed, 佟存柱, 王立军, BIMBERG Dieter, 李 充 (736)
基于二维材料的快速响应金属-半导体-金属结构光电探测器研究进展 何嘉玉, 陈克强, 冀 婷, 石林林, 冯 琳, 李国辉, 郝玉英, 张 啓, 崔艳霞 (745)
基于混合主体结构的溶液法制备的高效蓝色磷光 OLED 王 哲, 武瑞霞, 冯 洋, 刘 华, 周 亮 (763)
电子阻挡层 Al 组分对 GaN 基蓝光激光二极管光电性能的影响 杜小娟, 刘 晶, 董海亮, 贾志刚, 张爱琴, 梁 建, 许并社 (773)
低温 808 nm 高效率半导体激光器 吴顺华, 刘国军, 王贞福, 李 特 (786)

·发光产业及技术前沿·

- 硫化锌电致发光材料在智能可穿戴领域研究进展 郭素文, 杨伟峰, 胡云浩, 郑 岩, 周金水 (796)

CHINESE JOURNAL OF LUMINESCENCE

Vol. 43 No. 5 May 2022

CONTENTS

• Cover Story •

- Optimal Doping Content of Red Emitting $\text{Y}_4\text{GeO}_8:\text{Bi}^{3+}, \text{Eu}^{3+}$ Phosphor Designed by Response Surface Methodology *XU Shu-jun, CHEN Jing, CHEN Li-yuan, ASHRAF Ghulam-Abbas, LI Hui-jun, GUO Hai* (633)

• Invited Review •

- Research Progress of Stimuli-responsive AIE-active Hydrogels *WEN Xue-fei, SHA Ren, WANG Jian-guo* (642)
Available Manganese-containing Chemicals and Synthesis Methods for Mn^{4+} -activated Phosphors *WANG Zhao-wu, QU Qiao, JI Hai-peng, HAO Xiao-fei, LI Jin-sheng* (662)

• Synthesis and Properties of Materials •

- Single-phase White Light-emitting Phosphor $\text{Cs}_2\text{Li}_3\text{Sr}_2\text{B}_3(\text{PO}_4)_6:\text{Dy}^{3+}$ with Excellent Thermal Stability *WANG Yi-hang, LIAN Xue-zhu, XU Hua-wei, KANG Xiao-jiao, LYU Wei* (676)
Temperature Sensing Properties in $\text{NaScF}_4:\text{Yb}^{3+}/\text{Er}^{3+}$ Nanoparticles *XIANG Guo-tao, YANG Meng-lin, LIU Zhen, DING Yong-xi, HUANG Bin-yao, ZHANG Yu, WU Hong-xiu, HU Huan-huan* (684)

- Photoluminescence Properties and Energy Transfer of $\text{Sn}^{2+}-\text{Mn}^{2+}$ Co-doped $\text{Gd}_2\text{O}_3-\text{Al}_2\text{O}_3-\text{SiO}_2$ Glass *HUA Zhe-hao, TANG Gao, WEI Qin-hua, QIN Lai-shun, CAI Pei-qing, LIN Hui-xing, ZHOU Zhen-zhen, QIAN Sen, WANG Zhi-gang* (691)
Synthesis and Properties of Electron Transport Materials Based on Imidazo[1,2-a]pyridine-triazine *CHENG Zhi-qiao, BAI Ke-yan, JI Shao-min, DAI Lei, NIE Fei, HUO Yan-ping* (702)
Water-driven Photoluminescence Reversibility in CdSe/CdS Quantum Dots Polymer Composite *CAI Jun-hu, WANG Chen-hui, HU Xin-pei, CHEN En-guo, XU Sheng, YE Yun, GUO Tai-liang* (714)
A Simple Method to Enhance Performance of Inverted Planar Perovskite Solar Cells by Using PEDOT: PSS Doped with DMSO as Hole Transport Layer *WANG Ya-ling, YANG Li-ying, LI Lan, YIN Shou-gen* (725)

• Device Fabrication and Physics •

- Research Progress of High-speed 1 550 nm Vertical Cavity Surface Emitting Laser *HAN Sai-yi, TIAN Si-cong, XU Han-yang, PAN Shao-chi, MANSOOR Ahamed, TONG Cun-zhu, WANG Li-jun, BIMBERG Dieter, LI Chong* (736)
Research Progress of Fast Response 2D Material Photodetectors with Metal-semiconductor-metal Structure *HE Jia-yu, CHEN Ke-qiang, JI Ting, SHI Lin-lin, FENG Lin, LI Guo-hui, HAO Yu-ying, ZHANG Han, CUI Yan-xia* (745)
High-efficiency Blue Phosphorescent OLEDs Based on Mixed-host Structure by Solution-processed Method *WANG Zhe, WU Rui-xia, FENG Yang, LIU Hua, ZHOU Liang* (763)
Effect of Al Composition of Electron Blocking Layer on Photoelectric Performance of GaN-based Blue Laser Diode *DU Xiao-juan, LIU Jing, DONG Hai-liang, JIA Zhi-gang, ZHANG Ai-qin, LIANG Jian, XU Bing-she* (773)
Low Temperature 808 nm High Efficiency Semiconductor Laser *WU Shun-hua, LIU Guo-jun, WANG Zhen-fu, LI Te* (786)

• Luminescence Industry and Technology Frontier •

- Progress of Zinc Sulfide Electroluminescent Materials in Intelligent Wearable Field *GUO Su-wen, YANG Wei-feng, HU Yun-hao, ZHENG Yan, ZHOU Jin-shui* (796)

Editorial Board of Chinese Journal of Luminescence
(3888 Dongnanhu Rd., Changchun 130033, P. R. China)