

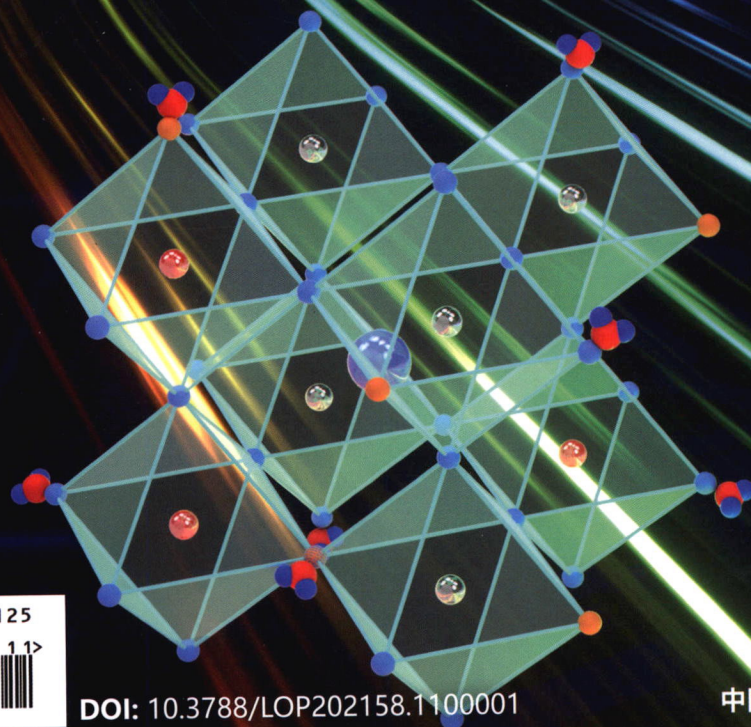
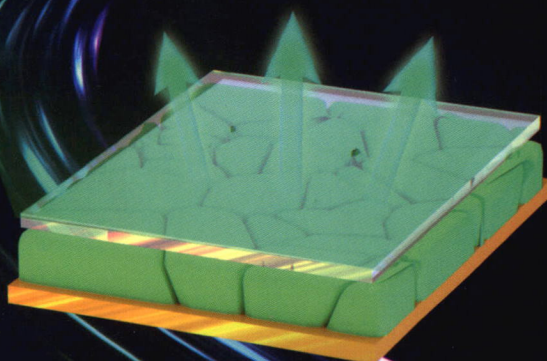
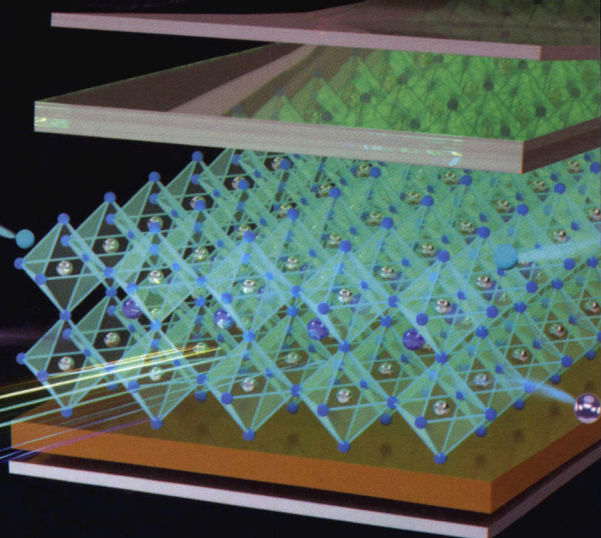
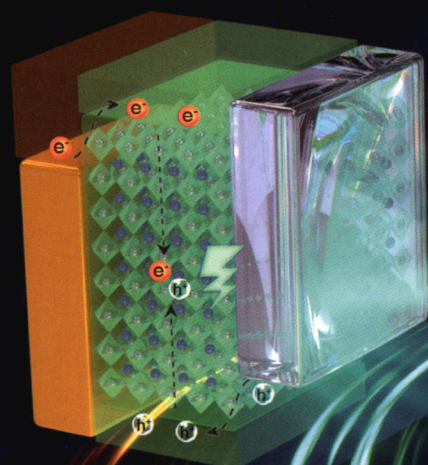
激光与光电子学进展

第 58 卷
第 11 期

Laser & Optoelectronics Progress

[总第694期]

2021.6(上)



ISSN 1006-4125



9 771006 412210

万方数据

DOI: 10.3788/LOP202158.1100001

中国科学院上海光学精密机械研究所 主办

激光与光电子学进展

第 58 卷 第 11 期 2021 年 6 月 10 日

(总第 694 期)

目 次

· 综述 ·

- 钙钛矿发光二极管的研究进展与机遇挑战(封面文章) 康汝燕, 闫莉莉, 张子琦, 等 1100001
- 凸面光栅的设计与制作研究进展 王丁陆, 张大伟, 徐邦联, 等 1100002
- 外差干涉仪非线性误差补偿抑制与测量研究进展 张鹏, 崔建军 1100003
- 激光诱导液体微射流效应及其在医学领域的应用 吕茗莹, 石晓卫, 薛建伟, 等 1100004
- 激光加工胀断连杆裂解槽技术研究现状 苏培林, 程焱, 王冠, 等 1100005
- 光纤传感技术在超导磁体状态监测中的应用研究 杨颂, 刘延超, 雷咸道, 等 1100006

· 原子与分子物理学 ·

- 超冷异核玻色四原子分子的多路径转化和干涉效应 豆福全, 张嘉辉, 杨静, 等 1102001

· 衍射与光栅 ·

- 基于级联导模共振光栅的平顶光学滤波器设计 余九州, 胡劲华, 任丹萍, 等 1105001
- 球面波入射二维光栅的泰伯效应 尹东旭, 周素梅, 谢意木男 1105002
- 折射率对倾斜光纤光栅光谱特性的影响 钟建辉, 冯艳, 张华, 等 1105003

· 光纤光学与光通信 ·

- 基于自组织增量生成对抗网络的智能光通信 牟迪, 蒙文, 刘文亚, 等 1106001
- 直线型 Sagnac 光纤语音传感器及语音降噪的研究 熊新中, 万生鹏, 刘恒, 等 1106002
- 基于空分复用光纤通信系统模式转换器的研究 钟文博, 董昭达, 张玲, 等 1106003
- 基于游标原理的法布里-珀罗温度传感器的增敏方法 蔡礼邹, 覃亚丽, 蔡小磊, 等 1106004
- 平顶光输出的全光纤信号合束器 黄建滨, 初单萍, 张群生, 等 1106005
- 基于增材制造技术的光纤布拉格光栅土压力传感器 刘文丽, 洪成雨, 鲍成志, 等 1106006
- 雾天环境下 SIMO NLOS 紫外光通信系统性能研究 马愈昭, 程飞帆, 贾惠婷, 等 1106007
- 水下无线光通信传感器网络路由算法的研究 秦浩然, 解志斌, 翁智辉 1106009

· 几何光学 ·

- 基于剪切干涉的双涡旋光干涉图样特性研究 赵冬娥, 李诺伦, 马亚云, 等 1108001

· 仪器, 测量与计量 ·

- 大口径长焦距星敏感器光学镜头的设计 孙东起, 胡明勇, 刘晨凯, 等 1112001
- 基于光学节点特征的光轴标定方法 高天元, 张涵, 刘智颖, 等 1112002
- 基于散射场分布拟合逼近的表面缺陷检测 武雄骁, 王红军, 魏晨, 等 1112003
- 基于调频干涉的发动机转静子轴向间隙测量技术 邵斌, 张伟, 陈伟民 1112004
- 基于激光自混合测振的 FSI 测距误差补偿方法 柴晓博, 吴腾飞, 殷璞芙 1112005

基于飞秒激光的水下声速溯源性高精度测量	刘超,薛彬,徐昕阳,等	1112006
基于STM32H743的调频连续波位移传感器	韩园,郑刚,张雄星,等	1112007
基于多项式拟合背景光的随机两步相移算法	李视,田爱玲,王大森,等	1112008
基于免疫优化算法的iGPS发射器布局优化方法	范景韬,黄翔,曾琪,等	1112009

· 激光器与激光光学 ·

飞秒激光刻蚀纳米金刚石涂层材料去除率的研究	韩源,马玉平,王海航,等	1114001
扫描策略对激光熔化沉积态TC4钛合金组织性能及残余应力的影响	单奇博,刘忱,姚静,等	1114002
<100 fs全光纤束缚态耗散孤子被动锁模激光器	钟敏,林小平,阮秋君,等	1114003
两种光束偏角下的铜-钢激光焊接工艺	徐爱民,汤超,李周选,等	1114004
基于约束结构球墨铸铁表面激光增材制造镍基高温合金非协同响应研究	郎甜甜,庞铭	1114005
装校失调对大口径离轴抛物面镜光束聚焦特性的影响	曾夏辉	1114006
7.13 kW、2倍衍射极限输出的Yb板条激光放大器	王亚楠,周唐建,尚建力,等	1114007
45钢轴面激光熔覆Ni60AA涂层工艺参数优化及摩擦磨损性能研究	吴军,朱冬冬,杨日初,等	1114008
液晶显示直下式激光背光源微结构光纤的设计与研究	沈凯锋,吴章强	1114010
大功率激光作用下光学系统轴向焦移仿真	丁伟,王菲,王孟洁,等	1114011

· 光学设计与制造 ·

高效率光导开关光学系统的设计	李建聪,罗佳雄,张宏炫,等	1122001
----------------------	---------------	---------

· 光学器件 ·

硅基光波导光学相控阵多光束形成方法	周恒超,王春阳,王子硕,等	1123001
基于振荡型金属光波导厚度增强的拉曼散射	陆炎,石膏雯,邓小燕,等	1123002

· 表面光学 ·

基于三角光栅的表面等离激元增强型发光二极管	徐云川,江孝伟,朱郑乔若,等	1124001
-----------------------------	----------------	---------

· 量子光学 ·

连续变量量子密钥分发中的最小二乘相位估计算法	黄彪,麻甜甜,黄永梅,等	1127001
基于W态的多方测量设备无关量子密钥分配性能分析	何业锋,李丽娜,白倩,等	1127002

· 光谱学 ·

Sm原子偶宇称高激发态偏振光谱	陈枫,张雪倩,张小虎,等	1130001
-----------------------	--------------	---------

· 薄膜 ·

公转结构电子束蒸发成膜的膜厚误差研究	鲍刚华,王奔,谢雨江,等	1131001
--------------------------	--------------	---------

· 视觉,颜色与视觉光学 ·

一种基于重建精度最优的多视点光学定位算法	叶灿,武博,杨巧玲,等	1133001
----------------------------	-------------	---------

封面解读

本封面体现了提升钙钛矿发光二极管性能的主要方法:组分调控、传输层材料优化、薄膜质量改善、光输出耦合效率提升,以更好提高可见光全波段发光效率。封面中类似于“三明治”结构的器件为钙钛矿发光二极管,钙钛矿层位于n型电子传输层与p型空穴传输层之间,由有源区发出七色光喷薄而出,即说明了钙钛矿可实现全波段连续发光,又寓意了近年来钙钛矿发光领域突飞猛进的势头。

Laser & Optoelectronics Progress

Vol. 58, No. 11 (Series No. 694) June 10, 2021

CONTENTS

Reviews

- Research Progresses, Opportunities, and Challenges of Perovskite Light-Emitting Diodes (**Cover Paper**)
..... *Kang Ruyan, Yan Lili, Zhang Ziqi, et al.* 1100001
- Research Progress in Design and Fabrication of Convex Grating
..... *Wang Dinglu, Zhang Dawei, Xu Banglian, et al.* 1100002
- Research Progress in Nonlinear Error Compensation Suppression and Measurement of Heterodyne Interferometer
..... *Zhang Peng, Cui Jianjun* 1100003
- Laser-Induced Liquid Micro-Jet Effect and Its Application in Medical Field
..... *Lü Mingxuan, Shi Xiaowei, Xue Jianwei, et al.* 1100004
- Research Status of Laser Processing Technology of Broken Connecting Rod Cracking Groove
..... *Su Peilin, Cheng Yan, Wang Guan, et al.* 1100005
- Application of Optical Fiber Sensing Technology in State Monitoring of Superconducting Magnet
..... *Yang Song, Liu Yanchao, Lei Xiandao, et al.* 1100006

Atomic and molecular physics

- Multipath Conversion and Interference Effect of Ultracold Bosonic Heteronuclear Tetra-Atomic Molecule
..... *Dou Fuquan, Zhang Jiahui, Yang Jing, et al.* 1102001

Diffraction and Gratings

- Design of Flat-Top Optical Filter Based on Cascaded Guided Mode Resonant Gratings
..... *Yu Jiuzhou, Hu Jinhua, Ren Danping, et al.* 1105001
- Talbot Effect from Spherical Wave Illuminating on Two-Dimensional Grating
..... *Yin Dongxu, Zhou Sumei, Xie Yimunan* 1105002
- Influence of Refractive Index on Spectral Characteristics of Tilted Fiber Gratings
..... *Zhong Jianhui, Feng Yan, Zhang Hua, et al.* 1105003

Fiber Optics and Optical Communications

- Intelligent Optical Communication Based on Self-Organizing Incremental Generative Adversarial Network
..... *Mu Di, Meng Wen, Liu Wenya, et al.* 1106001
- Research on Linear Sagnac Optic Fiber Speech Sensor and Noise Reduction
..... *Xiong Xinzhong, Wan Shengpeng, Liu Heng, et al.* 1106002
- Mode Converter of Optical Fiber Communication System Based on Space Division Multiplexing
..... *Zhong Wenbo, Dong Zhaoda, Zhang Ling, et al.* 1106003
- Sensitization Method of Fabry-Perot Temperature Sensor Based on Vernier Principle
..... *Cai Lizou, Qin Yali, Cai Xiaolei, et al.* 1106004
- All-Fiber Signal Combiner with Flat-Top Beam Output
..... *Huang Jianbin, Chu Danping, Zhang Qunsheng, et al.* 1106005
- Fiber Bragg Grating Soil Pressure Sensor Based on Additive Manufacturing Technology
..... *Liu Wenli, Hong Chengyu, Bao Chengzhi, et al.* 1106006
- Performance of SIMO NLOS UV Communication System in a Foggy Environment
..... *Ma Yuzhao, Cheng Feifan, Jia Huiting, et al.* 1106007
- Research on Routing Algorithm in Underwater Wireless Optical Communication Sensor Networks
..... *Qin Haoran, Xie Zhibin, Weng Zhihui* 1106009

Geometric Optics

- Characteristics of Double-Vortex Optical Interferogram Based on Shearing Interference
..... *Zhao Donge, Li Nuolun, Ma Yayun, et al.* 1108001

Instrumentation, Measurement and Metrology

- Design of Star Sensor Optical Lens with Large Aperture and Long Focal Length
..... *Sun Dongqi, Hu Mingyong, Liu Chenkai, et al.* 1112001
- Method for Calibrating Optical Axis Based on Characteristics of Optical Nodes
..... *Gao Tianyuan, Zhang Han, Liu Zhiying, et al.* 1112002
- Surface Defect Detection Based on Scattering Field Distribution Fitting Approximation
..... *Wu Xiong Xiao, Wang Hongjun, Wei Chen, et al.* 1112003
- Rotor-Stator Axial Clearance Measurement Technique of Engine Based on Frequency-Swept Interferometry
..... *Shao Bin, Zhang Wei, Chen Weimin* 1112004
- FSI Ranging Error Compensation Method Based on Laser Self-Mixing Vibration Measurement
..... *Chai Xiaobo, Wu Tengfei, Yin Pufu* 1112005

Traceable Accuracy Measurement of Underwater Sound Velocity Based on Femtosecond Laser	<i>Liu Chao, Xue Bin, Xu Xinyang, et al.</i>	1112006
Frequency Modulation Continuous Wave Displacement Sensor Based on STM32H743	<i>Han Yuan, Zheng Gang, Zhang Xiongxing, et al.</i>	1112007
A Random Two-Step Phase Shift Algorithm Based on Polynomial Fitting Background Light	<i>Li Jing, Tian Ailing, Wang Dasen, et al.</i>	1112008
Placement Optimization of iGPS Transmitter Based on Immune Optimization Algorithm	<i>Fan Jingtao, Huang Xiang, Zeng Qi, et al.</i>	1112009

Lasers and Laser Optics

Material Removal Rate of Nano-Diamond Coating Ablated by Femtosecond Laser	<i>Han Yuan, Ma Yuping, Wang Haihang, et al.</i>	1114001
Effects of Scanning Strategy on the Microstructure, Properties, and Residual Stress of TC4 Titanium Alloy Prepared by Laser Melting Deposition	<i>Shan Qibo, Liu Chen, Yao Jing, et al.</i>	1114002
< 100 fs All-Fiber Bound Dissipative Soliton Passively Mode-Locked Laser	<i>Zhong Min, Lin Xiaoping, Ruan Qiujun, et al.</i>	1114003
Copper-Steel Laser Welding Process under Two Laser Deflection Angles	<i>Xu Aiming, Tang Chao, Li Zhouxuan, et al.</i>	1114004
Nonsynergistic Response in Laser Additive Manufacturing of Nickel-Based Superalloys Comprising the Constrained Structure of a Ductile Iron Surface	<i>Lang Tiantian, Pang Ming</i>	1114005
Influence of Misalignment on Properties of Focused Laser Beam by Large Aperture Off-Axis Parabolic Mirror	<i>Zeng Xiaohui</i>	1114006
Yb Slab Laser Amplifier with a Laser Output of 7.13 kW, 2 Times Diffraction Limit	<i>Wang Yanan, Zhou Tangjian, Shang Jianli, et al.</i>	1114007
Parameters Optimization and Friction and Wear Properties for Laser Cladding Ni60AA Coating on 45 Steel Shaft Surface	<i>Wu Jun, Zhu Dongdong, Yang Richu, et al.</i>	1114008
Design of Microstructure Fiber for Direct Down Laser Backlight of Liquid Crystal Displays	<i>Shen Kaifeng, Wu Zhangqiang</i>	1114010
Simulation of Axial Focal Shift of Optical System Under High-Power Laser	<i>Ding Wei, Wang Fei, Wang Mengjie, et al.</i>	1114011

Optical Design and Fabrication

Design of High-Efficiency Photoconductive Switch Optical System	<i>Li Jiancong, Luo Jiexiong, Zhang Hongxuan, et al.</i>	1122001
--	--	---------

Optical Devices

Multibeam Formation Method for Silicon-Based Optical Waveguide Phased Array	<i>Zhou Hengchao, Wang Chunyang, Wang Zishuo, et al.</i>	1123001
Enhanced Raman Scattering Based on Thickness of Oscillating Metallic Optical Waveguide	<i>Lu Yan, Shi Xiaowen, Deng Xiaoyan, et al.</i>	1123002

Optics at Surfaces

Surface Plasmon Enhanced Light Emitting Diodes Based on Triangular Grating	<i>Xu Yunchuan, Jiang Xiaowei, Zhu Zhengqiaoruo, et al.</i>	1124001
---	---	---------

Quantum Optics

Least Square Algorithm for Phase Estimation in Continuous-Variable Quantum Key Distribution	<i>Huang Biao, Ma Tiantian, Huang Yongmei, et al.</i>	1127001
Performance Analysis of Multi-Party Measurement-Device-Independent Quantum Key Distribution Based on W States	<i>He Yefeng, Li Lina, Bai Qian, et al.</i>	1127002

Spectroscopy

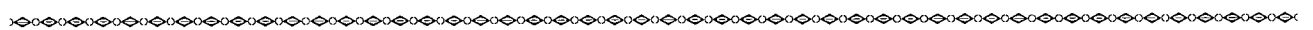
Polarization Spectra of Even-Parity Highly Excited States of Samarium Atom	<i>Chen Feng, Zhang Xueqian, Zhang Xiaohu, et al.</i>	1130001
---	---	---------

Thin Films

Film Thickness Error in Electron Beam Evaporation with Revolving Structure	<i>Bao Ganghua, Wang Ben, Xie Yujiang, et al.</i>	1131001
---	---	---------

Vision, Color, and Visual Optics

Multi-Viewpoint Optical Positioning Algorithm Based on Optimal Reconstruction Accuracy	<i>Ye Can, Wu Bo, Yang Qiaoling, et al.</i>	1133001
---	---	---------



本刊电子版彩色效果请详见中国光学期刊网 www.opticsjournal.net

激光与光电子学进展

Laser & Optoelectronics Progress

封面文章

2020年



万方数据