

目 次

• 激光与激光光学 •

基于非线性放大环镜和 Lyot 滤波器的多波长与耗散孤子锁模态开关型掺铥光纤激光器(英文)

..... 王小发, 刘经惠, 斩增高 0414001

全固态碟片激光器的多孔泡沫热沉传热特性研究 刘锐, 公发全, 李想, 等 0414002

Nd : YVO₄ / Nd : GdVO₄ 双波长激光器的功率均衡实验研究 夏梦莹, 胡森, 周慧敏, 等 0414003

激光冲击 690 高强钢位错组态与晶粒细化的实验研究 曹宇鹏, 杨聪, 施卫东, 等 0414004

• 大气与海洋光学 •

PM2.5 质量浓度廓线的激光雷达反演研究 熊兴隆, 李永东, 冯帅, 等 0401001

不同风速下侧向散射激光雷达的回波信号分析 孙佳琦, 胡森, 李鹏, 等 0401002

• 成像系统 •

一种改进的直视型微光夜视系统视距模型 金伟其, 张琴, 王霞, 等 0411001

基于时间补偿的激光扫描投影图形偏差校正研究 侯茂盛, 陈雨情, 刘大礼, 等 0411002

曲面相机阵列多分辨成像方法 曹杰, 崔焕, 孟令通, 等 0411003

• 光学器件 •

质子注入掺镱磷酸盐玻璃平面光波导的近红外特性(英文) 吕婧妍, 郭海涛, 徐君, 等 0423001

光寻址电位传感器的正交相位检波检测方法 佟星元, 闫晓光, 陈东 0423002

• 物理光学 •

暗怪波的相互作用 高仁, 王娟芬, 张煊, 等 0426001

离轴矢量光束的紧聚焦特性 李渝, 李鹏, 吴东京, 等 0426002

• 光纤光学与光通信 •

光子晶体光纤温度压力传感器 刘天沐, 江毅, 崔洋 0406001

无滤波高倍频光载毫米波生成技术 薛壮壮, 裴丽, 刘婷婷, 等 0406002

基于 EKF 的水下 LD 通信精对准控制算法 刘豪, 杨祎, 阴亚芳, 等 0406003

• 探测器 •

电子束泵浦钙钛矿纳米晶随机激射的瞬态发光特性 杜鹏, 母一宁, 任航, 等 0404001

工业 SO₂ 及碳黑颗粒紫外成像遥感监测技术 段为民, 熊远辉, 陈振威, 等 0404002

• 图像处理 •

基于潜在低秩表示与复合滤波的红外与弱可见光增强图像融合方法 江泽涛, 蒋琦, 黄永松, 等 0410001

基于图像重组和比特置乱的多图像加密	郭媛,周艳艳,敬世伟	0410002
基于 Retinex 理论与概率非局部均值的红外图像增强方法	李佳,李少娟,段小虎,等	0410003
基于分层引导滤波与最近邻正则化子空间的高光谱图像分类	徐冬冬,程德强,陈亮亮,等	0410004
基于中心点的遥感图像多方向舰船目标检测	张筱晗,姚力波,吕亚飞,等	0410005
基于迁移学习的原子力显微镜成像恢复方法	胡佳成,颜迪新,施玉书,等	0410006
• 仪器,测量,度量学 •		
一种微米级高度台阶镜面条纹反射的三维测量系统	万新军,吕宋,宋可,等	0412001
点光源反射镜法向标校技术	李瑞金,张黎明,李鑫,等	0412002
• 量子光学 •		
拉盖尔多项式算符激发相干态的非经典性质	卢道明	0427001
• 计算机视觉 •		
基于邻域特征点提取和匹配的点云配准	李新春,闫振宇,林森,等	0415001

(本期责编:张威)

期刊基本参量:CN61-1235/O4 * 1972 * M * 16 * 260 * zh+en * P * 120.00 * 850 * 28 * 2020-4

Contents

• Lasers and Laser Optics •

- State-switchable Multi-wavelength and Dissipative Soliton Mode-locked Tm-doped Fiber Laser Based on a Combination of Nonlinear Amplifying Loop Mirror and Lyot Filter WANG Xiao-fa, LIU Jing-hui, JIN Zeng-gao 0414001
Research on Heat Transfer Characteristics of Porous Foam Heat Sink for All Solid State Thin Disk Lasers LIU Rui, GONG Fa-quan, LI Xiang, et al 0414002
Experimental Research on Power-balanced Nd : YVO₄/Nd : GdVO₄ Dual-wavelength Laser XIA Meng-ying, HU Miao, ZHOU Hui-min, et al 0414003
Experimental Study on Dislocation Configuration and Grain Refinement of 690 High Strength Steel Treated by Laser Shock Processing CAO Yu-peng, YANG Cong, SHI Wei-dong, et al 0414004

• Atmospheric and Oceanic Optics •

- Lidar Inversion of PM2.5 Mass Concentration Vertical Distribution XIONG Xing-long, LI Yong-dong, FENG Shuai, et al 0401001
Echo Signals Analysis of Side-scattering LiDAR under Different Wind Speed Conditions SUN Jia-qi, HU Miao, LI Peng, et al 0401002

• Imaging Systems •

- An Improved Apparent Distance Model for Direct-viewlow-light-level Night Vision System JIN Wei-qi, ZHANG Qin, WANG Xia, et al 0411001
Deviation Correction of Laser Scanning Projection Image Based on Time Compensation HOU Mao-sheng, CHEN Yu-qing, LIU Da-li, et al 0411002
Multi-resolution Imaging with Camera Arrays on Curved Surface CAO Jie, CUI Huan, MENG Ling-tong, et al 0411003

• Optical Devices •

- Near-infrared Properties of Optical Planar Waveguides Formed by H⁺ Ion Implantation in Yb³⁺-doped Phosphate Glasses LÜ Jing-yan, GUO Hai-tao, XU Jun, et al 0423001
Orthogonal Phase Detection Method of Light-addressable Potentiometric Sensor TONG Xing-yuan, YAN Xiao-guang, CHEN Dong 0423002

• Physical Optics •

- Interaction of Dark Rogue Waves GAO Ren, WANG Juan-fen, ZHANG Xuan, et al 0426001
Tightly Focusing Property of Off-axial Vector Beams LI Yu, LI Peng, WU Dong-jing, et al 0426002

• Fiber Optics and Optical Communications •

- Photonic Crystal Fiber Temperature and Pressure Sensor LIU Tian-mu, JIANG Yi, CUI Yang 0406001
Photonic Generation of Filterless Frequency Multiple Tupling Optical Millimeter-wave Signal XUE Zhuang-zhuang, PEI Li, LIU Ting-ting, et al 0406002
Alignment Control Algorithm of Underwater LD Communication Based on EKF LIU Hao, YANG Yi, YIN Ya-fang, et al 0406003

• Detectors •

- Transient Luminescence Characteristics of Random Laser Emission Based on Electron Beam Pumping Perovskite Nanocrystals DU Peng, MU Yi-ning, REN Hang, et al 0404001

Remote Sensing and Monitoring of Industrial SO ₂ and Carbon Black Particles with Ultraviolet Imaging Technology	DUAN Wei-min, XIONG Yuan-hui, CHEN Zhen-wei, et al	0404002
• Image Processing •		
Infrared and Low-light-level Visible Light Enhancement Image Fusion Method Based on Latent Low-rank Representation and Composite Filtering	JIANG Ze-tao, JIANG Qi, HUANG Yong-song, et al	0410001
Multiple-image Encryption Based on Image Recombination and Bit Scrambling	GUO Yuan, ZHOU Yan-yan, JING Shi-wei	0410002
Infrared Image Enhancement Based on Retinex and Probability Nonlocal Means Filtering	LI Jia, LI Shao-juan, DUAN Xiao-hu, et al	0410003
Hyperspectral Image Classification Based on Hierarchical Guidance Filtering and Nearest Regularized Subspace	XU Dong-dong, CHENG De-qiang, CHEN Liang-liang, et al	0410004
Center Based Model for Arbitrary-oriented Ship Detection in Remote Sensing Images	ZHANG Xiao-han, YAO Li-bo, LÜ Ya-fei, et al	0410005
Restoration Method of Atomic Force Microscopy Image Based on Transfer Learning	HU Jia-cheng, YAN Di-xin, SHI Yu-shu, et al	0410006
• Instrumentation, Measurement and Metrology •		
A Specular Stepped Surface Profile Measurement System Based on Fringe Reflection Principle with Micrometer-level Height Resolution	WAN Xin-jun, LÜ Song, SONG Ke, et al	0412001
Specular Normal Calibration Technology of Point Source	LI Rui-jin, ZHANG Li-ming, LI Xin, et al	0412002
• Quantum Optics •		
Non-classical Properties of Laguerre Polynomial's Photon Added Coherent State	LU Dao-ming	0427001
• Machine Vision •		
Point Cloud Registration Based on Neighborhood Characteristic Point Extraction and Matching	LI Xin-chun, YAN Zhen-yu, LIN Sen, et al	0415001