

目 次

• 成像系统 •

- 激光本振红外光谱干涉成像及其艇载天文应用展望(特邀)(封面论文) 李道京, 周凯, 郑浩, 等 0211001
非线性体效应的逆问题 黄建衡, 刘鑫, 雷耀虎, 等 0211002

• 光纤光学与光通信 •

- 基于布里渊动态光栅的高灵敏度静压力传感器设计 赵丽娟, 赵海英, 徐志纽 0206001
一种新型 FBG 热式液体流量传感器 贾振安, 杨凯庆, 赵显锋, 等 0206002
基于 BLCD 分解与 ACO-DBN 网络的光纤振动信号识别 马愈昭, 王瑞松, 熊兴隆 0206003
基于薄包层极大倾角光纤光栅的灵敏度增强型振动传感器 刘开俊, 罗彬彬, 邹雪, 等 0206004

• 图像处理 •

- 基于改进 U-Net++ 的 CT 影像肺结节分割算法 黄鸿, 吕容飞, 陶俊利, 等 0210001
基于兴趣区域掩码卷积神经网络的红外-可见光图像融合与目标识别算法研究 郝永平, 曹昭睿, 白帆, 等 0210002
基于曲率滤波优化的遥感影像去雾算法 时慧恩, 孙希延, 黄建华, 等 0210003
基于变精度粗糙集的贪婪无监督高光谱图像波段选择方法 陈婧, 张振兴 0210004

• 光电子学 •

- 超二代及三代像增强器不同响应波段的参数测量及比较 李晓峰, 李娇娇, 李金沙, 等 0225001

• 仪器, 测量, 度量学 •

- 基于 CIC 的数字正交锁相放大器的甲烷检测实验研究 李国林, 蒋庆志, 马坤, 等 0212001
融合单目视觉的激光扫描投影系统自标定方法 侯茂盛, 陈雨情, 史铮雪, 等 0212002
同平台双偏振仪器地理定位及校正方法 李朕阳, 邹鹏, 刘振海, 等 0212003
一种基于自适应滤波的高动态星敏感器在轨校正方法 侯娅贤, 赵汝进, 马跃博, 等 0212004

• 遥感与传感器 •

- 基于机器学习的偏振遥感云检测优化算法 汪杰君, 刘少晖, 李树, 等 0228001

• 材料 •

- 一种具有异常透射功能的新型惠更斯超表面 王晓坤, 李周 0216001
金属杂质辅助低能氩离子束诱导蓝宝石自组织纳米结构 唐黎, 陈智利, 刘雨昭, 等 0216002

• 光谱学 •

阶梯复合形光声池声-流特性计算与评估 程刚, 曹亚南, 田兴, 等 0230001

• 激光与激光光学 •

三环无源谐振腔在光纤激光器中的选频特性 崔文翔, 周雪芳, 胡森, 等 0214001

大功率盘形激光焊接飞溅动态识别和特征分析(英文) 黎扬进, 范西岸, 龙观富, 等 0214002

(本期责编:艾云)

Contents

• Imaging Systems •

- Laser Local Oscillator Infrared Spectral Interferometry Imaging and Its Application Prospect for Shipborne Astronomy (Invited)(Cover Paper) *LI Daojing, ZHOU Kai, ZHENG Hao, et al* 0211001
Inverse Problem in Non-linear Partial Volume Effect *HUANG Jianheng, LIU Xin, LEI Yaohu, et al* 0211002

• Fiber Optics and Optical Communications •

- Design of High-sensitivity Hydrostatic Pressure Sensor Based on Brillouin Dynamic Grating *ZHAO Lijuan, ZHAO Haiying, XU Zhiniu* 0206001
A New FBG Thermal Liquid Flow Sensor *JIA Zhenan, YANG Kaiqing, ZHAO Xianfeng, et al* 0206002
Fiber-optic Vibration Signal Recognition Based on BLCD Decomposition and ACO-DBN Network *MA Yuzhao, WANG Ruisong, XIONG Xinglong* 0206003
Sensitivity-enhanced Vibration Sensor Based on Thin-cladding Excessively Tilted Fiber Gratings *LIU Kaijun, LUO Binbin, ZOU Xue, et al* 0206004

• Image Processing •

- Segmentation of Lung Nodules in CT Images Using Improved U-Net+ *HUANG Hong, LÜ Rongfei, TAO Junli, et al* 0210001
Research on Infrared Visible Image Fusion and Target Recognition Algorithm Based on Region of Interest Mask Convolution Neural Network *HAO Yongping, CAO Zhaorui, BAI Fan, et al* 0210002
Dehazing Algorithm for Remote Sensing Image Optimization Based on Curvature Filtering *SHI Huien, SUN Xiyan, HUANG Jianhua, et al* 0210003
Greedy Unsupervised Hyperspectral Image Band Selection Method Based on Variable Precision Rough Set *CHEN Jing, ZHANG Zhenxing* 0210004

• Optoelectronics •

- Measure and Comparison between the Second-generation and the Third-generation Image Intensifier within the Different Region of Wavelength *LI Xiaofeng, LI Jiaojiao, LI Jinsha, et al* 0225001

• Instrumentation, Measurement and Metrology •

- Experimental Study on Methane Detection Based on Cascaded Integrator Comb of Digital Orthogonal Phase-locked in Amplifier *LI Guolin, JIANG Qingzhi, MA Kun, et al* 0212001
Self-calibration Method of Laser Scanning Projection System Combined with Monocular Vision *HOU Maosheng, CHEN Yuqing, SHI Zhengxue, et al* 0212002
Geolocation and Correction Method for Dual Polarization Instrument on Same Platform *LI Zhenyang, ZOU Peng, LIU Zhenhai, et al* 0212003
An On-orbit Correction Method for High Dynamic APS Star Tracker Based on Adaptive Filtering *HOU Yaxian, ZHAO Rujin, MA Yuebo, et al* 0212004

• Remote Sensing and Sensors •

- Optimization Algorithm for Polarization Remote Sensing Cloud Detection Based on Machine Learning WANG Jiejun, LIU Shaohui, LI Shu, et al 0228001

• Materials •

- Novel Huygens Metasurface with Capability of Anomalous Transmission WANG Xiaokun, LI Zhou 0216001
Metal-assisted Low-energy Ar⁺ Ion Beam Induces Self-organized Nanostructure of Sapphire TANG Li, CHEN Zhili, LIU Yuzhao, et al 0216002

• Spectroscopy •

- Calculation and Evaluation of Acoustic and Flow Field Characteristics of Trapezoid Compound Photoacoustic Cell CHENG Gang, CAO Yanan, TIAN Xing, et al 0230001

• Lasers and Laser Optics •

- Frequency-selecting Property of Fiber Laser Based on the Triple-ring Passive Resonators CUI Wenxiang, ZHOU Xuefang, HU Miao, et al 0214001
Spatter Dynamic Recognition and Feature Analysis During High-power Disk Laser Welding LI Yangjin, FAN Xian, LONG Guanfu, et al 0214002