

中文核心期刊
中国科技核心期刊

LOP | Laser & Optoelectronics Progress

激光与光电子学进展

总第657期

第56卷 | 第22期

Vol. 56 | No. 22

2019.11(下)



ISSN 1006-4125



万方数据

22>

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 56 卷 第 22 期 2019 年 11 月

(总第 657 期)

目 次

· 综述 ·

InP 基近红外单光子雪崩光电探测器阵列 (封面文章) 刘凯宝, 杨晓红, 何婷婷, 等 220001

· 大气光学与海洋光学 ·

光栅型波前曲率传感器光斑自动定位提取算法 徐其峰, 陈波 220101

水下可见光像素化多输入多输出比特加载自适应研究 陈雅迪, 符杰林, 李燕龙, 等 220102

· 衍射与光栅 ·

基于遗传算法的双层亚波长金属光栅优化 安超, 褚金奎, 张然 220501

· 光纤光学与光通信 ·

蚁群算法优化室内可见光通信功率均匀性的研究 杨智群, 梁继然, 毛陆虹 220601

· 图像处理 ·

基于卷积神经网络的壁画颜料多光谱图像分类 王燕妮, 朱丹娜, 王慧琴, 等 221001

一种组合型损失函数的位姿估计算法 张德, 李国璋, 王怀光, 等 221002

基于反残差结构的轻量级多目标检测网络 刘万军, 高明月, 曲海成, 等 221003

基于集中稀疏表示的天文图像超分辨率重建 段亚康, 罗林, 李金龙, 等 221004

· 成像系统 ·

一种新的线结构光标定方法 张瑞峰, 舒子芸, 南刚雷 221101

基于点云内骨架的分割算法 李仁忠, 刘哲闻, 刘阳阳 221102

· 仪器、测量与计量 ·

基于分层聚类的彩色结构光光条检测方法 刘进博, 郭鹏宇, 伍越, 等 221201

基于结构光技术的高反射表面三维测量 冯建洋, 谌海云, 石础, 等 221202

· 激光器与激光光学 ·

激光冲击处理对 GH3039 高温合金疲劳寿命的影响 汤洋, 葛茂忠, 王太明, 等 221401

真空环境对激光熔覆镍基碳化钨涂层组织和性能的影响 姚永强, 林晨, 申井义, 等 221402

· 机器视觉 ·

基于尺度搜索的车辆跟踪算法 范永昆, 张正道, 彭力 221501

基于时序一致和空间剪裁的多特征相关滤波跟踪算法 王译萱, 吴小俊, 徐天阳 221502

基于前景感知的时空相关滤波跟踪算法 虞跃洋, 史泽林, 刘云鹏 221503

基于相关系数平方和最大的三维点云配准 苗长伟, 唐志荣, 唐英杰 221504

高效线结构光视觉测量系统标定方法 李爱娟, 辛睿, 武栓虎 221505

· 材料 ·

氧化铜纳米片阵列的合成及其锂离子电池负极材料的研究 温元斌, 郭志忠, 卿晨, 等 221601

· 光学器件 ·

LCSLM 相位调制特性及其在非球面测量中的应用 马文超, 申文, 胡栋挺, 等 222301

主体材料对绿色有机发光二极管性能的影响 李真真, 刘伟强, 武瑞霞, 等 222302

· 物理光学 ·

基于三维荧光光谱的土壤中石油类有机物分类识别 左光陆, 赵南京, 孟德硕, 等 222601

· 遥感与传感器 ·

基于改进 U-net 的遥感影像建筑物提取 任欣磊, 王阳萍, 杨景玉, 等 222801

基于到达时间和到达角度的室内联合定位算法 杨超超, 陈建辉, 刘德亮, 等 222802

基于密集连接网络的遥感图像检测方法 杜泽星, 殷进勇, 杨建 222803

· 光谱学 ·

基于 THz-TDS 的聚乙烯管道接头老化及缺陷检测实验分析 陈强, 王强, 谷小红, 等 223001

载玻片的激光诱导击穿光谱实验关键参数优化 常鹏飞, 王静鸽, 仵祎, 等 223002

多元校正输入的钢液 Mn 元素 LIBS 定量分析 杨友良, 王祿, 马翠红 223003

面向光源类型检测的同色异谱对的构建方法 谢雯, 陈丹青, 万晓霞 223004

X 射线荧光光谱结合多元统计分析塑料打包带(绳) 马泉, 姜红, 杨佳琦 223005

Laser & Optoelectronics Progress

Vol.56, No.22 (Series No.657) November 2019

CONTENTS

• Reviews •

Indium Phosphide-Based Near-Infrared Single Photon Avalanche Photodiode Detector Arrays (**Cover Paper**)

..... *Liu Kaibao, Yang Xiaohong, He Tingting, et al.* 220001

• Atmospheric Optics and Oceanic Optics •

Automatic Spot Location and Extraction Algorithm for Grating Wavefront Curvature Sensor

..... *Xu Qifeng, Chen Bo* 220101

Adaptive Bit Loading of Underwater Visible-Light Pixelated Multiple-Input and Multiple-Output Systems

..... *Chen Yadi, Fu Jielin, Li Yanlong, et al.* 220102

• Diffraction and Gratings •

Optimization of Bilayer Sub-Wavelength Metallic Grating Based on Genetic Algorithm

..... *An Chao, Chu Jinkui, Zhang Ran* 220501

• Fiber Optics and Optical Communications •

Power Uniformity Optimization in Indoor Visible Light Communication Based on Ant Colony Algorithm

..... *Yang Zhiqun, Liang Jiran, Mao Luhong* 220601

• Image Processing •

Multispectral Image Classification of Mural Pigments Based on Convolutional Neural Network

..... *Wang Yanni, Zhu Danna, Wang Huiqin, et al.* 221001

Pose Estimation Algorithm Based on Combined Loss Function

..... *Zhang De, Li Guozhang, Wang Huaiwang, et al.* 221002

Light-Weight Multi-Object Detection Network Based on Inverted Residual Structure

..... *Liu Wanjun, Gao Mingyue, Qu Haicheng, et al.* 221003

Super-Resolution Reconstruction of Astronomical Images Based on Centralized Sparse Representation

..... *Duan Yakang, Luo Lin, Li Jinlong, et al.* 221004

• Imaging Systems •

Calibration Method for Line-Structured Light *Zhang Ruijing, Shu Ziyun, Nan Ganglei* 221101

Segmentation Algorithm Based on Point Cloud Skeleton *Li Renzhong, Liu Zhewen, Liu Yangyang* 221102

• Instrumentation, Measurement and Metrology •

Detection Method for Color Structured Light Stripe Based on Hierarchical Clustering

..... *Liu Jinbo, Guo Pengyu, Wu Yue, et al.* 221201

Three-Dimensional Measurement of Highly-Reflective Surface Using Structured Light Technique

..... *Feng Jianyang, Chen Haiyun, Shi Chu, et al.* 221202

• Lasers and Laser Optics •

Effect of Laser Shock Peening on Fatigue Life of GH3039 Superalloy

..... *Tang Yang, Ge Maozhong, Wang Taiming, et al.* 221401

Effect of Vacuum on Microstructure and Properties of Laser Cladding Ni-Based WC Coating	..... Yao Yongqiang , Lin Chen , Shen Jingyi , et al . 221402
• Machine Vision •	
Vehicle Tracking Algorithm Based on Scale Search	..... Fan Yongkun , Zhang Zhengdao , Peng Li 221501
Tracking Algorithm of Correlation Filter with Multiple Features Based on Temporal Consistency and Spatial Pruning	..... Wang Yixuan , Wu Xiaojun , Xu Tianyang 221502
Foreground-Aware Based Spatiotemporal Correlation Filter Tracking Algorithm	..... Yu Yueyang , Shi Zelin , Liu Yunpeng 221503
Three-Dimensional Point Cloud Registration Based on Maximum Sum of Squares of Correlation Coefficients	..... Miao Changwei , Tang Zhirong , Tang Yingjie 221504
Efficient Calibration Method for Line-Structured Light Vision Measurement System	..... Li Aijuan , Xin Rui , Wu Shuanhu 221505
• Materials •	
Synthesis of Copper Oxide Nanosheet Arrays for Negative Electrode Materials of Lithium-Ion Batteries	..... Wen Yuanbin , Guo Zhizhong , Qing Chen , et al . 221601
• Optical Devices •	
Phase Modulation Characteristics of LCSLM and Its Applications in Aspheric Surface Measurements	..... Ma Wenchao , Shen Wen , Hu Dongting , et al . 222301
Influence of Host Material on Performances of Green Organic Light Emitting Diodes	..... Li Zhenzhen , Liu Weiqiang , Wu Ruixia , et al . 222302
• Physical Optics •	
Identification of Petroleum Organic Matter in Soil Based on Three-Dimensional Fluorescence Spectroscopy	..... Zuo Zhaolu , Zhao Nanjing , Meng Deshuo , et al . 222601
• Remote Sensing and Sensors •	
Building Detection from Remote Sensing Images Based on Improved U-net	..... Ren Xinlei , Wang Yangping , Yang Jingyu , et al . 222801
Indoor Joint Localization Algorithm Based on Time and Angle of Arrival	..... Yang Chaochao , Chen Jianhui , Liu Deliang , et al . 222802
Remote Sensing Image Detection Based on Dense Connected Networks	..... Du Zexing , Yin Jinyong , Yang Jian 222803
• Spectroscopy •	
Inspection of Aging and Defects of Polyethylene Pipe Joints Based on THz-TDS	..... Chen Qiang , Wang Qiang , Gu Xiaohong , et al . 223001
Optimizing Key Experimental Parameters for Laser-Induced Breakdown Spectroscopy of Slides	..... Chang Pengfei , Wang Jingge , Wu Yi , et al . 223002
Quantitative Analysis of Mn in Molten Steel with Multi-Factor Calibration Input Using Laser-Induced Breakdown Spectroscopy	..... Yang Youliang , Wang Lu , Ma Cuihong 223003
Construction Method of Metameric Pairs for Illuminant Detection	..... Xie Wen , Chen Danqing , Wan Xiaoxia 223004
Examination of Plastic Pack Belts (Ropes) via X-Ray Fluorescence Spectrometry Combined with Multivariate Statistical Analysis	..... Ma Xiao , Jiang Hong , Yang Jiaqi 223005



HPLSE 2020

Call for Papers

Program Committee

Gonçalo Figueira, Universidade de Lisboa, Portugal
Leonida A. Gizzi, National Institute of Optics, CNR, Italy
Joachim Hein, Friedrich-Schiller-Universität Jena, Germany
Lili Hu, SIOM, CAS, China
Kyung-Han Hong, Massachusetts Institute of Technology, USA
Shigeo Kawata, Utsunomiya University, Japan
Ryosuke Kodama, Osaka University, Japan
Hong Jin Kong, KAIST, South Korea
Gattamraju Ravindra Kumar, Tata Institute of Fundamental Research, India
Anle Lei, Shanghai Institute of Laser Plasma, CAEP, China
Yuxin Leng, SIOM, CAS, China
Yutong Li, Institute of Physics, CAS, China
Xiaoyan Liang, SIOM, CAS, China
Tomas Mocek, Institute of Physics ASCR v.v.i, Czech Republic

David Neely, Central Laser Facility, STFC Rutherford Appleton Laboratory, UK
Karoly Osvay, ELI-ALPS, Hungary
Baifei Shen, Shanghai Normal University, China
Zhengming Sheng, University of Strathclyde, UK / Shanghai Jiao Tong University, China
Hideaki Takabe, Institute of Radiation Physics, Helmholtz Zentrum Dresden Rossendorf, Germany
Kazuo A. Tanaka, ELI-NP, Romania
Michael Tatarakis, Technological Education Institute of Crete, Greece
Yingying Wang, Beijing University of Technology, China
Stefan Weber, ELI-Beamlines, Czech Republic
Jiping Zou, LULI, France
Jonathan D. Zuegel, University of Rochester, USA

Invited Speakers

Philip Bradford, University of York, UK
Jake Bromage, Laboratory for Laser Energetics, University of Rochester, USA
Nathalie Blanchot, CEA, France
Gonçalo Figueira, Universidade de Lisboa, Portugal
Leonida A. Gizzi, National Institute of Optics, CNR, Italy
Yanjun Gu, ELI-Beamlines, Czech Republic
Joachim Hein, Friedrich-Schiller-Universität Jena, Germany
Minglie Hu, Tianjin University, China
Jiro Itatani, Institute for Solid State Physics, University of Tokyo, Japan
Franz Kärtner, Center for Free-Electron Laser Science (CFEL) at DESY / University of Hamburg, Germany
Shigeo Kawata, Utsunomiya University, Japan
Hiromitsu Kiriyma, National Institute for Quantum and Radiological Science and Technology, Japan
Ryosuke Kodama, Osaka University, Japan
Jörg Körner, Friedrich-Schiller University, Germany
M. Krishnamurthy, Tata Institute of Fundamental Research, India
G. Ravindra Kumar, Tata Institute of Fundamental Research, India
Tim Kunze, Fraunhofer-Institut für Werkstoff und Strahltechnik, Germany
Yutong Li, Institute of Physics, CAS, China
Xiaoyan Liang, SIOM, CAS, China
Guoqian Liao, Central Laser Facility, STFC Rutherford Appleton Laboratory, UK
Philippe Martin, Commissariat à l'Energie Atomique / IRAMIS / SPAM, France
Katsumi Midorikawa, RIKEN Center for Advanced Photonics, Japan

David Neely, Central Laser Facility, STFC Rutherford Appleton Laboratory, UK
Frank Nürnberg, Heraeus, Germany
Thomas Oksenhendler, iTEOX, France
Karoly Osvay, ELI-ALPS, Hungary
Roy Philippe, Xlim CNRS, University de Limoges, France
Irene Prencipe, Helmholtz-Zentrum Dresden-Rossendorf, Germany
Jonathan H. V. Price, University of Southampton, UK
Liejia Qian, Shanghai Jiao Tong University, China
Fabien Quéré, IRAMIS-LIDYL, CEA Saclay, France
Baifei Shen, Shanghai Normal University, China
Zhengming Sheng, University of Strathclyde, UK / Shanghai Jiao Tong University, China
Christopher Spindloe, STFC Rutherford Appleton Laboratory, UK
Takunori Taira, Laser-Driven Electron-Acceleration Technology Group, RIKEN SPring-8 Center, Japan
Vladimir Tikhonchuk, University of Bordeaux, France
Csaba Toth, BELLA Center at Lawrence Berkeley National Laboratory, USA
Ken-ichi Ueda, University of Electro-Communications, Japan
Yingying Wang, Beijing University of Technology, China
Stefan Weber, ELI-Beamlines, Czech Republic
Yong Yang, Shanghai Institute of Ceramics, CAS, China
Michalis N. Zervas, University of Southampton, UK
Yanqing Zheng, Shanghai Institute of Ceramics, CAS, China
Pu Zhou, National University of Defense Technology, China
Arie Zigler, Hebrew University of Jerusalem, Israel
Jiping Zou, LULI, France

More will join us!