



第41卷 | 第21期
Vol. 41 | No. 21

2021.11 (上)

光学学报

Acta Optica Sinica

[总第498期]



ISSN 0253-2239



9 770253 2239 2.1>

DOI: 10.3788/AOS202141.2100001

中国科学院上海光学精密机械研究所 主办
中国光学学会

光 学 学 报

第 41 卷 第 21 期 2021 年 11 月 10 日

(总第 498 期)

目 次

• 综述 •

微透镜阵列的制备与应用研究进展(封面文章) 李建军, 褚春艳, 卢玮彤, 等 2100001

• 原子与分子物理学 •

基于红失谐高斯光束的冷原子束流长距离传输 刘乾, 谢昱, 李琳, 等 2102001

• 探测器 •

基于互补梯度增强的红外线列扫描图像小目标检测 楼晨风, 张湧, 刘亚 2104001

低轨红外卫星对类 HTV-2 高超声速飞行器探测能力研究..... 陈海龙, 张翱, 刘雪梅, 等 2104002

• 衍射与光栅 •

基于电驱动纳米光栅的结构设计及仿真分析 张周强, 周玲, 郭志超, 等 2105001

• 光纤光学与光通信 •

基于 Ni-MOF-74 衍生物 Co/NiO 的高灵敏光纤 CO 传感器 周俊丞, 冯文林, 杨晓占, 等 2106001

温度和电场作用下保偏光纤对方位传递的影响 杨志勇, 宋俊辰, 蔡伟, 等 2106002

低差分模时延 4-LP 少模光纤设计..... 代勇, 田凤, 王拥军, 等 2106003

材料封装型光纤布拉格光栅宽温域应变传感性能研究 冯德全, 罗小东, 樊伟, 等 2106004

• 傅里叶光学与信号处理 •

基于偏振延时干涉的瞬时频率测量系统的分析与优化 朱伟, 李晶, 裴丽, 等 2107001

• 图像处理 •

基于深度学习的红外目标成像液位检测方法 梁霄, 李家炜, 赵小龙, 等 2110001

利用遗传算法优化误差扩散核参数的条纹二值编码方法研究 朱昌会, 周佩, 朱江平, 等 2110002

• 成像系统 •

基于 Hadamard 优化矩阵的多分辨显微关联成像研究 冯悦姝, 周成, 刘轩, 等 2111001

• 仪器, 测量与计量 •

干涉光路装配应力对称性对 Shupe 误差的影响 范运强, 黄继勋, 李晶 2112002

• 激光器与激光光学 •

基于光反馈双模 DFB 激光器的宽带混沌信号产生 张艺腾, 贾志伟, 李青天, 等 2114001

光注入掺铒光纤激光器的混沌特性 任静峰, 杨玲珍, 祝王华, 等 2114002

Acta Optica Sinica

Vol. 41, No. 21 (Series No. 498) November 10, 2021

CONTENTS

Reviews

Development of Microlens Arrays: From Fabrication to Photonic Applications (Cover Paper)
..... Li Jianjun, Chu Chunyan, Lu Weitong, et al. 2100001

Atomic and Molecular Physics

Long-Distance Transmission of Cold Atomic Beams Based on Red-Detuned Gaussian Beams Liu Qian, Xie Yu, Li Lin, et al. 2102001

Detectors

Small Target Detection of Infrared Linear Array Image Based on Complemented Gradient Enhancement
..... Lou Chenfeng, Zhang Yong, Liu Ya 2104001

Research on Detection Capability of Low-Orbit Infrared Satellite to HTV-2-Like Hypersonic Vehicle
..... Chen Hailong, Zhang Ao, Liu Xuemei, et al. 2104002

Diffraction and Gratings

Structure Design and Simulation Analysis Based on Electrically Driven Nanograting
..... Zhang Zhouqiang, Zhou Ling, Guo Zhongchao, et al. 2105001

Fiber Optics and Optical Communications

Ni-MOF-74-Derived Co/NiO for High-Sensitivity Fiber-Optic CO Sensor ... Zhou Juncheng, Feng Wenlin, Yang Xiaozhan, et al. 2106001

Influence of Polarization-Maintaining Fibers on Azimuth Transmission Under Variable Temperature and Electric Field
..... Yang Zhiyong, Song Junchen, Cai Wei, et al. 2106002

Design of 4-LP Few-Mode Fiber with Low-Differential Mode Delay Dai Yong, Tian Feng, Wang Yongjun, et al. 2106003

Strain Sensing Performance of Material Packaged Fiber Bragg Grating in Wide Temperature Range
..... Feng Dequan, Luo Xiaodong, Fan Wei, et al. 2106004

Fourier Optics and Signal Processing

Analysis and Optimization of Instantaneous Frequency Measurement System Based on Polarization Time Delay Interference
..... Zhu Wei, Li Jing, Pei Li, et al. 2107001

Image Processing

Infrared Target Imaging Liquid Level Detection Method Based on Deep Learning ... Liang Xiao, Li Jiarui, Zhao Xiaolong, et al. 2110001

Stripe Binary Encoding Method Using Genetic Algorithms to Optimize Kernel Parameters of Error Diffusion
..... Zhu Changhui, Zhou Pei, Zhu Jiangping, et al. 2110002

Imaging Systems

Study of Multi-Resolution Microscopic Correlation Imaging Based on Optimized Hadamard Matrix
..... Feng Yueshu, Zhou Cheng, Liu Xuan, et al. 2111001

Instrumentation, Measurement and Metrology

Effect of Assembly Stress Symmetry of Interference Optical Path on Shape Error Fan Yunqiang, Huang Jixun, Li Jing 2112002

Lasers and Laser Optics

Broadband Chaos Signal Generation Based on Dual-mode DFB Laser with Optical Feedback
..... Zhang Yiteng, Jia Zhiwei, Li Qingtian, et al. 2114001

Chaotic Characteristics of Erbium-Doped Fiber Laser with Optical Injection

..... Ren Jingfeng, Yang Lingzhen, Zhu Wanghua, et al. 2114002

Optical Design and Fabrication

Stability of Air Floating Optical Platform Based on Optimal Tuned Liquid Column Damper

..... Cui Wenhui, Zhu Jiangqiang, He Yuanqi, et al. 2122001

Optical Devices

Effect of Bow Tie Type Silver Metal Array Structure on Light Extraction Efficiency of GaN-Based Light Emitting Diodes

..... Tang Hua , Li Qiang , Zhang Qifan , et al. 2123001

Structural Design of Near Ultraviolet Nadir Imaging Spectrometer Yang Jianyu, Yang Xuan, Zheng Jianhua 2123002

Optoelectronics

Near-Infrared Integrated Photodetector Based on PdSe₂ Nanowires Film/Si Heterojunction

..... Lin Yanan, Wu Yadong, Cheng Haiyang, et al. 2125001

Physical Optics

Properties of Optical Vortex Lattice Generated via Multiple Plane Wave Interference

..... Qin Xueyun, Zhu Liuhao, Tai Yuping, et al. 2126001

Continuous Rotation of Airy-Hermite-Gaussian Beams with a Cross Phase Propagating Through Uniaxial Crystals

..... *Zhu Kaicheng, Wu Zihao, Tang Huiqin, et al.* 2126002

Misalignment Effect on Far-Field Spatio-Temporal Characteristics in Off-Axis Gregorian System

..... *Hu Bilong, Li Wei, Wang Xiao, et al.* 2126003

Quantum Optics

Coherent Optical Transmission Characteristics Based on Magneto-Optical Force System Hou Baocheng, Chen Huajun 2127001

Scattering

Dimension Measurement of Nanorods Based on Depolarized-Polarized Image-Based Dynamic Light Scattering

..... Liu Zeqi, Cai Xiaoshu, Paul Briard, et al. 2129001

Spectroscopy

Spatial Characteristics of Spectral Intensity of Laser Induced Plasma Sun Chenwei, Bu Yang, Wang Yuanhang, et al. 2130001

Ultrafast Optics

Study on Field Curvature Characteristics of Pulse-Dilation Framing Tube Lei Yunfei, Liu Jinyuan, Cai Houzhi, et al. 2132001

Vision, Color, and Visual Optics

Orthogonal Color Transfer with Depth Feature Fusion for True-Color EMCCD Ding Ke, Zhao Wenqu, Cai Yi, et al. 2133001

Letters

Development of Mid-Wave Infrared Image Sensor with Frame Rate of 1 MHz

..... Zhang Jiqing, Deng Gongrong, Mao Wenbiao, et al. 2136001

[illegible]

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

光学学报

Acta Optica Sinica

半月刊

中国科技期刊
卓越行动计划
入选期刊

数据库收录: EI ESCI CA AJ INSPEC Scopus 等

主 编

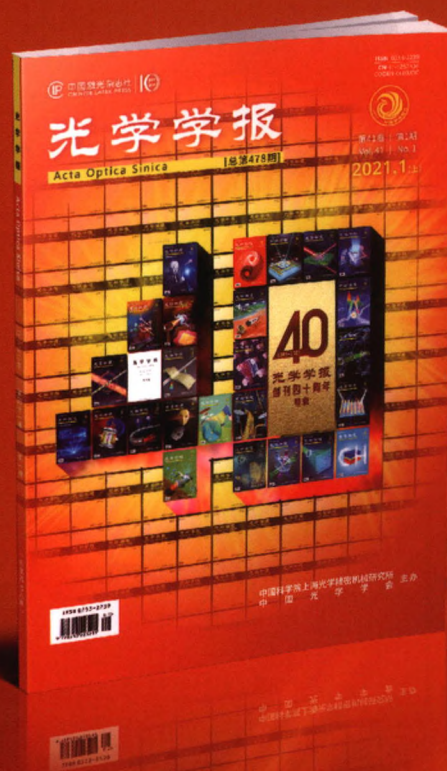
执行主编



龚旗煌 院士
北京大学



赵建林 教授
西北工业大学



征稿范围

包含但不限于以下征稿范围

- | | | |
|---------------|-------------|---------------|
| ● 大气与海洋光学 | ● 集成光学 | ● 光电子学 |
| ● 原子与分子物理学 | ● 激光器与激光光学 | ● 物理光学 |
| ● 相干与统计光学 | ● 机器视觉 | ● 量子光学 |
| ● 探测器 | ● 材料 | ● 遥感与传感器 |
| ● 衍射与光栅 | ● 医用光学与生物光学 | ● 散射 |
| ● 光纤光学与光通信 | ● 显微 | ● 光谱学 |
| ● 傅里叶光学与光信号处理 | ● 非线性光学 | ● 薄膜 |
| ● 几何光学 | ● 光计算 | ● 超快光学 |
| ● 全息 | ● 光数据存储 | ● 视觉, 色彩与视觉光学 |
| ● 图像处理 | ● 光学设计与制造 | ● X射线光学 |
| ● 成像系统 | ● 光学器件 | ● 光学其他领域 |
| ● 仪器, 测量与计量 | ● 表面光学 | ● 快报 |

处理周期



投稿方式

通过《光学学报》官方网站的投稿系统进入“作者中心”, 按系统要求填写信息, 上传稿件。投稿模板及要求请参见官网作者服务版块。



期刊官网



中国百强报刊



中国精品科技期刊



中国国际影响力优秀学术期刊

万方数据

联系人: 何卓铭

电 话: 021-69916837

邮 箱: aos@siom.ac.cn