



中国科技核心期刊 中文核心期刊

ISSN 1001-5078

CN 11-2436/TN

激光与红外

LASER & INFRARED

02

2021

第51卷 第2期

ISSN 1001-5078



9 771001 507218

中国光学光电子行业协会
电子工业激光与红外专业情报网
中国电子学会量子电子学与光电子学分会

联合刊物

目次

综述与评论

- 大型光学望远镜子镜单元微位移促动器综述 刘炎森 张景旭 杨飞等(131)
高功率光纤激光空间拼接的研究进展 付翔 邓志峰 查申龙等(141)

激光应用技术

- PMMA 疏水性表面的飞秒激光制备研究 李江澜 汪帮富 王中旺等(149)
激光加载下钛合金的层裂特性研究 姚红兵 唐旺 叶霞(156)
基于线性调频脉冲压缩的激光相干探测技术研究 张鹏飞 潘静岩 范杰平(161)
高旋掠飞弹载激光雷达对地面装甲目标的分割与识别 蒋罕寒 郭锐 武军安等(166)
激光选区熔化成形 316L 不锈钢组织和力学性能分析 程灵钰 何召辉 孙靖等(171)

激光器技术

- 二硫化钨掺镱光纤激光器连续和调 Q 实验研究 张凤娟 黄敏(178)
912 nm/1064 nm 同步双波长激光特性研究 尤建村 闻军 马业万(184)

红外技术及应用

- 恒温 NDIR 二氧化碳气体传感器研究 裴昱 张加宏 李敏等(189)
储罐液位的红外定量辨识 宋春霞 陈林 罗兵(196)

红外材料与器件

- 光刻工艺对大面阵长波碲镉汞芯片性能的影响 张轶 牛峻峰 龚志红等(202)

光电技术与系统

- 机载光电稳定平台建模及动态特性分析 嵇婷 纪明 胥青青等(206)
基于手机热点传输的微型光谱仪系统研究 孙中懿 王方欢 毕宗杰等(212)

光纤及光通讯技术

- 基于 BP 信号识别的光纤油气管道监测系统 周莹 荀武侯 赵光贞(217)
梯度掺稀土光纤的制备工艺研究 耿鹏程 庞璐 武洋(222)

光电对抗

- 金属-碳复合材料的制备及其非线性光学性质研究 彭文联 刘清海 赵文博等(227)
基于捷联导引头去耦问题惯测注入方法研究 赵书占 许轲 褚建川等(232)

图像与信号处理

- 基于 GF-5 的滇池蓝藻水华空间分布特征研究 胡琳 甘淑 袁希平等(237)
融合相关滤波和 CNN 的点状目标跟踪技术研究 刘佳真 陈勤霞 艾斯卡尔·艾木都拉(244)
基于引导滤波的高动态红外图像压缩算法 汪璇 赵金博 刘智嘉等(250)

LASER & INFRARED

(Monthly, Publication Started in 1971)

Vol. 51 No. 2

(Series No. 509)

February 2021

JOINT JOURNAL of
China Optics & Opto-Electronics
Manufactures Association
Laser & Infrared Technology Information
Exchange Organization, CEI
Quantum Electronics & Opto-
Electronics Society, CIE

CONTENTS

Overview & Comment

- (131) Review on primary mirror segment position actuator
of large optical telescope *LIU Yan-sen et al*
- (141) Research progress of high power fiber laser beam space splicing *FU Xiang et al*

Laser Application Technology

- (149) Fabrication of PMMA hydrophobic surface by femtosecond laser *LI Jiang-lan et al*
- (156) Research of spallation characteristics of titanium alloy under laser loading *YAO Hong-bing et al*
- (161) Research on coherent laser detection using linear frequency modulated *ZHANG Peng-fei et al*
- (166) Segmentation and recognition of ground armor target for the hedgehopping munition with high rotational
speed carrying laser radar *JIANG Han-han et al*
- (171) Microstructure and mechanical properties of 316L stainless steel by selective laser melting *CHENG Ling-yu et al*

Laser Technology

- (178) The experimental research of continuous and Q-switched MoS₂-SA Yb³⁺-doped fiber laser *ZHANG Feng-juan et al*
- (184) Study on the characteristics of 912 nm/1064 nm simultaneous dual-wavelength laser *YOU Jian-cun et al*

Infrared Technology & Application

- (189) Research on constant temperature NDIR carbon dioxide gas sensor *PEI Yu et al*
- (196) Quantitative identification for liquid level based on infrared technology *SONG Chun-xia et al*

Infrared Material & Device

- (202) Effect of lithography on the performance of long-wavelength HgCdTe detector *ZHANG Yi et al*

O - E Technology & System

- (206) Modeling and dynamic characteristics analysis of airborne photoelectric stabilization platform *JI Ting et al*
- (212) Research on miniature spectrometer system based on phone hotspot transmission *SUN Zhong-yi et al*

Optical Fiber & Optical Communication

- (217) Fiber sensor pipeline monitoring system based on BP signal distinguish *ZHOU Ying et al*
- (222) Study on the preparation of graded rare earth doped fiber *GENG Peng-cheng et al*

O - E Countermeasure

- (227) Preparation and nonlinear optical properties of metal-carbon composite materials *PENG Wen-lian et al*
- (232) Research on INS injection method based on strap-down seeker decoupling *ZHAO Shu-zhan et al*

Image & Signal Processing

- (237) Study on the spatial distribution characteristics of cyanobacteria bloom in Dianchi Lake based on GF-5 *HU Lin et al*
- (244) Research on point target tracking technology based on correlation filtering and CNN *LIU Jia-zhen et al*
- (250) High dynamic infrared image compression algorithm based on guided filtering *WANG Xuan et al*