

## 目 次

• 020 激光器与激光光学 •			
用于铯原子基态双光子相干操控的大失谐 Raman 激光系统的研究 .....	刁文婷	梁强兵	刘 智 等 1102001
水体深度对激光声信号影响研究 .....	王晓宇	王江安	宗思光 等 1102002
谐振腔应力对全反射棱镜式激光陀螺输出光强分布特性影响 .....	刘健宁	蒋军彪	连天虹 等 1102003
980 nm 半导体激光器腔面温度特性分析 .....	郑晓刚	李 特	芦 鹏 等 1102004
化学氧碘激光器内流场结构对出光性能影响的数值分析 .....	怀 英	吴克难	贾淑芹 等 1102005
基于半导体光放大器的自锁模激光器及重复频率分频现象 .....	潘洪刚	于晋龙	王文睿 等 1102006
偏硼酸钡晶体中彩色锥形辐射特性的研究 .....	尹娟娟	俞 侃	包佳祺 1102007
高功率线偏振皮秒脉冲掺镱全光纤激光器 .....	李燕苹	刘 江	师红星 等 1102008
高功率激光装置调频脉冲时间波形测试技术研究 .....	孙志红	董 军	夏彦文 等 1102009
双层结构柱形微腔中回音壁模式激光的干涉调制现象研究 .....	张晓晓	张远宪	普小云 1102010
非对称超大光腔 980 nm 大功率半导体激光器 .....	李建军	崔碧峰	邓 军 等 1102011
紧凑坚固 Littman-Metcalf 型可调谐外腔半导体激光器 .....	魏 芳	陈迪俊	辛国锋 等 1102012
1.9~4.3 μm 全光纤中红外超连续谱光源 .....	张 斌	杨未强	侯 静 等 1102013
• 030 激光加工与应用 •			
选区激光熔化 W-Cu 复合体系熔池熔体运动行为的数值模拟 .....	戴冬华	顾冬冬	李雅莉 等 1103001
激光冲击强化对 NiTi 形状记忆合金力学性质的影响 .....	夏伟光	吴先前	魏延鹏 等 1103002
激光金属直接成形 Ti6Al4V-CoCrMo 梯度材料开裂研究 .....	解 航	张安峰	李涤尘 等 1103003
大功率光纤激光焊接过程中工艺参数对熔深和气孔的影响 .....	赵 琳	塚本进	荒金吾郎 等 1103004
激光淬火对 40CrNiMo 高强度钢疲劳性能与断口形貌的影响 .....	孔德军	张 垒	宋仁国 等 1103005
声学法判断金属铝板靶激光支持爆轰波的点燃阈值 .....	刘天航	高 勋	刘泽昊 等 1103006
LF6 铝合金激光填丝点焊工艺研究 .....	陶 汪	马轶男	陈彦宾 等 1103007
TA15-2 合金表面激光熔覆 Ni 基涂层物理与表面性能 .....	李嘉宁	巩水利	王西昌 等 1103008
激光修复 GH4169 镍基高温合金的弯曲性能 .....	戚永爱	赵剑峰	谢德巧 等 1103009
激光参数对 C/SiC 复合材料烧蚀热的影响 .....	彭国良	张相华	王玉恒 等 1103010
大功率光纤激光厚板自熔焊焊缝表面质量改善研究 .....	陈根余	周 宇	张明军 等 1103011
• 040 激光医学与生物学 •			
基于标定臂的低噪声光学相干层析成像技术 .....	汪 毅	陈晓冬	王 婷 等 1104001
• 050 光纤光学与光通信 •			
基于飞秒激光微纳加工技术制备的光纤布拉格光栅的带宽特性 .....	严 飞	陈 涛	崔 巍 等 1105001
双包层七芯光子晶体光纤超连续谱的产生及模式分析 .....	黄诗盛	张格霖	韦会峰 等 1105002
星间光通信链路双向光束稳定跟踪约束条件分析 .....	武 凤	于思源	周 洁 等 1105003
基于突发流的星载光交换数据信道调度算法 .....	李瑞欣	赵尚弘	刘振霞 等 1105004
高载噪比多载波光源的噪声抑制理论及实验研究 .....	张 霞	白成林	张晓光 1105005
• 060 材料 •			
复合金属纳米盘二聚物的散射特性 .....	邹伟博	周 骏	张昊鹏 等 1106001
• 070 薄膜 •			
离子束辅助及退火后处理对氦-镉激光器反射镜输出功率的影响 .....	崔 潇	陶春先	洪瑞金 等 1107001
辉光放电辅助脉冲激光沉积 CN <sub>x</sub> 薄膜的价键结构及机械性能 .....	郑晓华	宋建强	杨芳儿 等 1107002
• 080 测量与计量 •			
基于光纤传感水热平衡法测量碳纤维圆筒结构的热扩散系数 .....	周雅斌	曾 捷	张倩昀 等 1108001
应用于结构光投影三维测量的二值时空编码方法 .....	林海新	吴庆阳	黄锦辉 等 1108002
免疫投影基准光强变化的五步移相算法在条纹投影偏折法中的应用 .....	刘 江	王 飞	王高文 等 1108003

基于两帧差分平均移相算法标定斐索型波长移相干涉仪 • 090 全息与信息处理 •	文刚 苏东奇 隋永新等	1108004
基于信号子空间谱域约束的激光主动成像散斑噪声去除	王灿进 孙涛 王锐等	1109001
一种基于小波稀疏确定性简单二值观测矩阵的嵌入式视觉压缩传感实现方法	刘继忠 金明亮 马如远等	1109002
计算全息图补偿检测离轴非球面中的投影畸变校正技术 • 100 微纳光学 •	曾雪锋 闫锋 薛栋林等	1109003
基于宽场随机荧光漂白的超分辨显微方法 • 130 大气与海洋光学 •	蔡欢庆 匡翠方 王轶凡等	1110001
基于神经网络的压电倾斜镜磁滞补偿方法研究 • 140 遥感与传感器 •	王冲冲 胡立发 何斌等	1113001
金属光栅结构对表面等离子体共振的影响 • 150 光谱学 •	肖钰斐 张卫平 黄海华等	1114001
波长调制光谱测量系统中的数字化相敏检测实现 • 180 量子光学 •	李晗 刘建国 阚瑞峰等	1115001
双阱玻色气体中的无序与有效三体相互作用研究 • 简讯 •	郑莉 钱军	1118001
国产大模场双包层光子晶体光纤实现高效率飞秒激光放大	崔元玲 黄莉莉 柴路等	1102006-5

## CONTENTS

• 020 LASERS AND LASER OPTICS •		
Study of Large Detuning Raman Laser Systems Used for Two-Photon Coherent Manipulation of the Ground State of Single Cesium Atom ..... Diao Wenting Liang Qiangbing Liu Zhi et al.		1102001
Research on Laser-Induced Acoustic Signals in Different Water Depths ..... Wang Xiaoyu Wang Jiang'an Zong Signuang et al.		1102002
Intensity Distribution Properties of Output Light in Total Reflection Prisms Laser Gyro with Cavity Stresses ..... Liu Jianning Jiang Junbiao Lian Tianhong et al.		1102003
Analysis of Temperature Characteristics of 980 nm Semiconductor Laser Facet ..... Zheng Xiaogang Li Te Lu Peng et al.		1102004
Influence of Flow Structures on Supersonic Chemical Oxygen-Iodine Laser Output with Numerical Analysis ..... Huai Ying Wu Kenan Jia Shuqin et al.		1102005
Semiconductor Optical Amplifier Based Self-Mode Locking Laser and Phenomenon of Dimidiate Frequency ..... Pan Honggang Yu Jinlong Wang Wenrui et al.		1102006
Investigation of Colored Conical Emission in $\beta$ -Barium Borate Crystal ..... Yin Juanjuan Yu Kan Bao Jiaqi		1102007
High Power Linearly-Polarized Picosecond Pulsed Ytterbium-Doped All-Fiber Laser ..... Li Yanping Liu Jiang Shi Hongxing et al.		1102008
Temporal Profile Measurement of Frequency Modulation Beams for High Power Laser Facility ..... Sun Zhihong Dong Jun Xia Yanwen et al.		1102009
Study of Interference Modulation Effect of Whispering-Gallery Mode Lasing Emission with a Double Layered Microcavity ..... Zhang Xiaoxiao Zhang Yuanxian Pu Xiaoyun		1102010
980 nm High Power Semiconductor Laser with Asymmetric Super Large Optical Cavity ..... Li Jianjun Cui Bifeng Deng Jun et al.		1102011
A Compact and Rugged Tunable External Cavity Diode Laser with Littman-Metcalf Configuration ..... Wei Fang Chen Dijun Xin Guofeng et al.		1102012
All-Fiber Mid-Infrared Supercontinuum Source from 1.9 $\mu\text{m}$ to 4.3 $\mu\text{m}$ ..... Zhang Bin Yang Weiqiang Hou Jing et al.		1102013
• 030 LASER PROCESSING AND APPLICATIONS •		
Numerical Simulation of Metallurgical Behavior of Melt Pool during Selective Laser Melting of W-Cu Composite Powder System ..... Dai Donghua Gu Dongdong Li Yali et al.		1103001
Mechanical Properties of NiTi Shape Memory Alloy Processed by Laser Shock Peening ..... Xia Weiguang Wu Xianqian Wei Yanpeng et al.		1103002
Research on the Cracking of Ti6Al4V-CoCrMo Gradient Material Fabricated by Laser Metal Direct Forming ..... Xie Hang Zhang Anfeng Li Dichen et al.		1103003
Influence of Welding Parameters on weld Depth and Porosity in High Power Fiber Laser Welding ..... Zhao Lin Tsukamoto Susumu Arakane Goro et al.		1103004
Effect of Laser Quenching on Fatigue Properties and Fracture Morphologies of 40CrNiMo High Strength Steel ..... Kong Dejun Zhang Lei Song Renguo et al.		1103005
Determination of the Ignition Threshold of Laser Supported Detonation Wave of Aluminum Using Acoustic Method ..... Liu Tianhang Gao Xun Liu Zehao et al.		1103006

Laser Spot Welding of LF6 Aluminum Alloy with Filler Wire .....	Tao Wang Ma Yinan Chen Yanbin et al. 1103007
Physical and Surface Performance of Laser Clad Ni Based Coating on a TA15-2 Alloy .....	Li Jianing Gong Shuili Wang Xichang et al. 1103008
Flexural Property of GH4169 Nickel-Based Superalloy by Laser Repair .....	Qi Yongai Zhao Jianfeng Xie Deqiao et al. 1103009
Effect of Laser Parameters on C/SiC Composites Material Ablation Heat .....	Peng Guoliang Zhang Xianghua Wang Yuheng et al. 1103010
Study on Improving Surface Quality of Weld of Autogenously Laser Welding of Thick Plate with High Power Fiber Laser .....	Chen Genyu Zhou Yu Zhang Mingjun et al. 1103011
<b>• 040 LASER MEDICINE AND BIOLOGY •</b>	
Low Noise Optical Coherence Tomography Imaging Technology Based on Demarcating Arm .....	Wang Yi Chen Xiaodong Wang Ting et al. 1104001
<b>• 050 FIBER OPTICS AND OPTICAL COMMUNICATIONS •</b>	
Bandwidth Characteristics of Fiber Bragg Grating Fabricated with Femtosecond Laser Radiation .....	Yan Fei Chen Tao Cui Wei et al. 1105001
Supercontinuum Generation and Mode Analysis for Double Cladding Seven-Core Photonic Crystal Fiber .....	Huang Shisheng Zhang Gelin Wei Huifeng et al. 1105002
Analysis of the Stability of Bidirectional Beam Tracking in Inter-Satellite Optical Communication .....	Wu Feng Yu Siyuan Zhou Jie et al. 1105003
An On-Board Optical Switching Data Channel Scheduling Algorithm Based on Burst Stream .....	Li Ruixin Zhao Shanghong Liu Zhenxia et al. 1105004
Theoretical Analysis and Experimental Study of Noise Suppression for High-Carrier-Noise-Rate Multi-Carrier Light Source .....	Zhang Xia Bai Chenglin Zhang Xiaoguang et al. 1105005
<b>• 060 MATERIALS •</b>	
Optical Scattering Properties of Bimetallic Nanodisk Dimers .....	Zou Weibo Zhou Jun Zhang Haopeng et al. 1106001
<b>• 070 THIN FILMS •</b>	
Influence of Ion-Beam Assistance and Annealing on Output Power of He-Cd Laser Reflector .....	Cui Xiao Tao Chunxian Hong Ruijin et al. 1107001
Valence Bond Structure and Mechanical Properties of $CN_x$ Films Prepared by Glow Discharge Assisted Pulsed Laser Deposition .....	Zheng Xiaohua Song Jianqiang Yang Fanger et al. 1107002
<b>• 080 MEASUREMENT AND METROLOGY •</b>	
Measurement of the Thermal Diffusivity of Carbon Composite by Water-Heat Balance Method .....	Zhou Yabin Zeng Jie Zhang Qianyun et al. 1108001
Binary Spatiotemporal Encoded Method for Structured Light Projection of Three-Dimensional Measurement .....	Lin Haixin Wu Qingyang Huang Jinhui et al. 1108002
Application of Standard Intensity Insensitive Five-Step Phase-Shifting Algorithm in Projected Fringe Deflectometry .....	Liu Jiang Wang Fei Wang Gaowen et al. 1108003
Calibration of Fizeau Wavelength-Tuned Phase-Shifting Interferometer Based on Two-Frame Differential Average Phase-Shifting Algorithm .....	Wen Gang Su Dongqi Sui Yongxin et al. 1108004
<b>• 090 HOLOGRAPHY AND INFORMATION PROCESSING •</b>	
Speckle Noise Suppression for Laser Active Imaging Based on Spectrum-Domain Constrain in Signal Subspace .....	Wang Canjin Sun Tao Wang Rui et al. 1109001
Novel Deterministic Simple 0-1 Observation Matrix and Wavelet Sparsity Based Compressed Sensing Implementation Method for Embedded Vision System .....	Liu Jizhong Jin Mingliang Ma Ruyuan et al. 1109002
Distortion Correction in Testing of Off-Axis Asphere with Computer-Generated Hologram .....	Zeng Xuefeng Yan Feng Xue Donglin et al. 1109003
<b>• 100 MICRO-AND NANO-OPTICS •</b>	
Superresolution Microscopy Imaging Based on Wide-Field Stochastic Fluorescent Bleaching .....	Cai Huanqing Kuang Cuifang Wang Yifan et al. 1110001
<b>• 130 ATMOSPHERIC AND OCEANIC OPTICS •</b>	
Hysteresis Compensation Method of Piezoelectric Steering Mirror Based on Neural Network .....	Wang Chongchong Hu Lifa He Bin et al. 1113001
<b>• 140 REMOTE SENSING AND SENSORS •</b>	
Influence of Function of Metal Grating Shape on Surface Plasmon Resonance .....	Xiao Yufei Zhang Weiping Huang Haihua et al. 1114001
<b>• 150 SPECTROSCOPY •</b>	
Implementation of Digital Phase-Sensitive Detection in Wavelength Modulation Spectroscopy Measurement System .....	Li Han Liu Jianguo Kan Ruifeng et al. 1115001
<b>• 180 QUANTUM OPTICS •</b>	
Research on the Interplay Between Disorder and Effective Three-Body Interaction of Bosons in a Double-Well Potential .....	Zheng Li Qian Jun 1118001