

## 目 次

### • 020 激光器与激光光学 •

PDH 激光稳频控制技术研究 .....	卞正兰	黄崇德	高 敏 等	0302001
高功率垂直腔底发射激光器的偏振特性 .....	王 伟	宁永强	张金龙 等	0302002
微柱阵列和两种透镜导管耦合系统的三维光线追迹与设计 .....	韩克祯	刘晓娟	葛筱璐 等	0302003
一种超越型激光强度函数及其数值拟合方法 .....		袁文全	巩 岩	0302004
周期极化钽酸锂倍频窄谱线全光纤连续激光放大器特性 .....	焦梦丽	吕新杰	刘 驰 等	0302005
半导体激光阵列光谱合束技术中变换透镜的研究 .....	郝明明	朱洪波	秦 莉 等	0302006
二维非球形粒子随机介质中光场的传输特性 .....	李志全	郑 莎	牛力勇 等	0302007
高功率 Bounce 板条放大器链路热补偿仿真及实验验证 .....	李环环	李世光	马秀华 等	0302008
基于双环混合偏振矢量光束实现光学囚笼实时操纵的理论研究 .....	刘海港	杨艳芳	何 英 等	0302009

### • 030 激光加工与应用 •

脉冲激光焊接钛合金薄板的熔池深度预测 .....	张 健	杨 锐		0303001
基于环形光内送粉激光熔覆温度场的数值模拟 .....	石世宏	王 晨	徐爱琴 等	0303002
弱散射材料中激光超声单散射理论模型 .....	许伯强	杨小平	徐桂东 等	0303003
激光快速成形 Inconel 718 超合金拉伸力学性能研究 .....		席明哲	高士友	0303004
激光手术中喷嘴尺寸对制冷剂闪蒸喷雾冷却表面传热特性的影响 .....	周致富	王 锐	王国祥 等	0303005
激光修整青铜金刚石砂轮石墨变质层的研究 .....	陈根余	陈 冲	卜 纯 等	0303006
HF 蚀刻+逐层抛光法表征熔石英亚表面损伤层深度 .....	杨明红	赵元安	易 葵 等	0303007
各向异性板中激光激发 Lamb 波的数值模拟 .....	许伯强	陈丽娟	徐桂东 等	0303008
钢/铝异种金属预置 Si 粉的光纤激光焊接 .....	王 涛	周恺武	彭 艳 等	0303009
中高温条件下 6061-T651 铝合金激光冲击强化研究 .....	任旭东	阮 亮	皇甫喆卓 等	0303010

### • 050 光纤光学与光通信 •

基于温度变化的涂覆型熔锥光纤传输特性 .....	傅海威	许士超	乔学光 等	0305001
基于 Lyot 滤波器和长周期光纤光栅的温度与应变的同时测量 .....	童峥嵘	郭 阳	杨秀峰 等	0305002
横向压力对弱双折射光纤光栅偏振相关损耗特性的影响 .....	王启宇	励强华	郭炳霞 等	0305003
基于改进遗传算法双重约束的 FBG 应变分布重构研究 .....	王 静	王正方	隋青美 等	0305004
高灵敏度加速度抵消型分布反馈有源光纤光栅水听器研究 .....	李东明	陈 军	葛辉良 等	0305005
采用高斯波形近似的干涉型光纤光栅法布里-珀罗传感系统的可见度分析 .....	牛嗣亮	饶 伟	梁 迅 等	0305006
任意波长间隔的光纤光栅梳状滤波器设计与实现 .....	孙帼丹	王 荣	蒲 涛 等	0305007
金属化光纤光栅内应力的分析和实验研究 .....	皮浩洋	刘 琼	叶 青 等	0305008
一种多光束发射和接收 FSO 系统的信道建模方法 .....	徐建武	王红星	孙晓明 等	0305009
K 波段高稳光电振荡器 .....	孙 斌	于晋龙	王 菊 等	0305010

### • 080 测量与计量 •

点衍射干涉仪波前参考源标定算法的研究 .....	张 宇	金春水	马冬梅 等	0308001
基于同心圆光栅和楔形光栅的摄像机自标定方法 .....	薛俊鹏	苏显渝	窦蕴甫	0308002
利用极大似然法统计回波信号实现光束闭环瞄准实验研究 .....	周 磊	任 戈	谭 毅 等	0308003

基于质量线导向的二维相位展开新方法 .....	吴勇辉	程筱胜	崔海华 等	0308004
伪装涂层激光反射特性检测与实验研究 .....	凌 军	张拴勤	吴坚业 等	0308005
· 090 全息与信息处理 ·				
基于三维集成成像相机阵列获取的元素图像校正 .....	焦小雪	赵 星	杨 勇 等	0309001
数字全息显微定量相位成像的实验研究 .....	马利红	王 辉	金洪震 等	0309002
· 100 微纳光学 ·				
波导耦合多层结构光学微球腔性能分析 .....	郝 鹏	董永超	曹兆楼 等	0310001
· 110 太赫兹技术 ·				
太赫兹波段一维金属线栅的偏振特性研究 .....	刘立明	赵国忠	张杲辉 等	0311001
· 140 遥感与传感器 ·				
基于光盘光栅的表面等离子体共振传感器 .....	刘 畅	邹正峰	陈淑芬 等	0314001
· 160 光学设计与制造 ·				
影响方形非球面光学元件加工精度的工艺研究 .....	吴庆堂	聂凤明	王大森 等	0316001
一种数字光栅无掩模光刻对准方法 .....	唐路路	胡 松	徐 峰 等	0316002
一种基于空间光调制器的微透镜阵列制备技术 .....	申 溯	浦东林	胡 进 等	0316003
· 简 讯 ·				
113 W 主振功率放大结构 1018 nm 全光纤激光器 .....	刘泽金	肖 虎	周 朴 等	0305009-8
基于氧化石墨烯锁模的 2 $\mu\text{m}$ 掺铥超短脉冲光纤激光器 .....	刘 江	吴思达	徐 佳 等	0310001-7

## CONTENTS

· 020 LASERS AND LASER OPTICS ·				
Research on Control Technique for Pound-Drever-Hall Laser Frequency Stabilizing System .....				
.....	<i>Bian Zhenglan</i>	<i>Huang Chongde</i>	<i>Gao Min et al.</i>	0302001
Polarization Properties of High-Power Vertical-Cavity Bottom-Emitting Lasers .....				
.....	<i>Wang Wei</i>	<i>Ning Yongqiang</i>	<i>Zhang Jinlong et al.</i>	0302002
Three-Dimensional Simulation Analysis and Design by Ray-Tracing Method for Microcylinders and Two Kinds of Lens Duct .....				
.....	<i>Han Kezhen</i>	<i>Liu Xiaojuan</i>	<i>Ge Xiaolu et al.</i>	0302003
A Transcendental Laser Intensity Function and Its Numerical Fitting Method .....	<i>Yuan Wenquan</i>	<i>Gong Yan</i>		0302004
Second Harmonic Generation Characteristics of Continuous Wave Narrow-Linespectrum All Fiber Amplifier in PPSLT .....				
.....	<i>Jiao Mengli</i>	<i>Lü Xinjie</i>	<i>Liu Chi et al.</i>	0302005
Research on Transform Lens in Spectral Beam Combination for Laser Diode Array .....	<i>Hao Mingming</i>	<i>Zhu Hongbo</i>	<i>Qin Li et al.</i>	0302006
Transmission Characteristics of Optical Field in 2D Random Medium of Non-Spherical Particles .....				
.....	<i>Li Zhiquan</i>	<i>Zheng Sha</i>	<i>Niu Liyong et al.</i>	0302007
Modeling and Experimental Study at Thermal Effect of High Power Bounce-Pumped Slab Amplifiers .....				
.....	<i>Li Huanhuan</i>	<i>Li Shiguang</i>	<i>Ma Xiuhua et al.</i>	0302008
Theoretical Study About Real-Time Manipulation of Optical Cage with Double-Ring-Shaped Hybridly Polarized Vector Beam .....				
.....	<i>Liu Haigang</i>	<i>Yang Yanfang</i>	<i>He Ying et al.</i>	0302009
· 030 LASER PROCESSING AND APPLICATIONS ·				
Weld Penetration Depth Prediction of Pulsed Laser Welding Titanium Alloy Thin Plate .....	<i>Zhang Jian</i>	<i>Yang Rui</i>		0303001
Temperature Field Numerical Simulation of Laser Cladding Based on Internal Powder Feeding through a Hollow Laser Beam .....				
.....	<i>Shi Shihong</i>	<i>Wang Chen</i>	<i>Xu Aiqin et al.</i>	0303002
Theoretical Model of Singly-Scattered Laser-Induced Ultrasound in Weak-Scattering Materials .....				
.....	<i>Xu Baiqiang</i>	<i>Yang Xiaoping</i>	<i>Xu Guidong et al.</i>	0303003
Research on Tensile Properties of Inconel 718 Superalloy Fabricated by Laser Rapid Forming Process .....	<i>Xi Mingzhe</i>	<i>Gao Shiyou</i>		0303004
Effect of Nozzle Size on the Surface Heat Transfer Dynamics during Cryogen Spray Cooling in Dermatologic Laser Surgery .....				
.....	<i>Zhou Zhifu</i>	<i>Wang Rui</i>	<i>Wang Guoxiang et al.</i>	0303005
Research on Carbonized Layer for Truing and Dressing of Bronze-Bonded Diamond Grinding Wheels with Laser .....				
.....	<i>Chen Genyu</i>	<i>Chen Chong</i>	<i>Bu Chun et al.</i>	0303006

Subsurface Damage Characterization of Ground Fused Silica by HF Etching Combined with Polishing Layer by Layer .....	<i>Yang Minghong Zhao Yuan'an Yi Kui et al.</i>	0303007
Numerical Simulation of Laser-Generated Lamb Waves in Anisotropic Plates .....	<i>Xu Baiqiang Chen Lijuan Xu Guidong et al.</i>	0303008
Steel-to-Aluminum Fiber Laser Butt Welding with Si Powder Pre-Filling .....	<i>Wang Tao Zhou Dianwu Peng Yan et al.</i>	0303009
Experimental Research of Laser Shock Processing 6061-T651 Aluminum Alloy during Elevated Temperature .....	<i>Ren Xudong Ruan Liang Huangfu Yongzhuo et al.</i>	0303010
<b>• 050 FIBER OPTICS AND OPTICAL COMMUNICATIONS •</b>		
Coated and Tapered Fiber Transmission Characteristics Based on Temperature Variation .....	<i>Fu Haiwei Xu Shichao Qiao Xueguang et al.</i>	0305001
Simultaneous Measurement of Temperature and Strain Based on a Long-Period Fiber Grating Combined with a Lyot Fiber Filter in a Linear Configuration .....	<i>Tong Zhengrong Guo Yang Yang Xiufeng et al.</i>	0305002
Effect of Lateral Force on Reflected Polarization Dependent Loss Property of Low-Birefringence Fiber Bragg Gratings .....	<i>Wang Qiyu Li Qianghua Guo Bingxia et al.</i>	0305003
Study of FBG Strain Distribution Reconstruction Based on Improved Genetic Algorithm Dual Constraint .....	<i>Wang Jing Wang Zhengfang Sui Qingmei et al.</i>	0305004
Research of High Sensitivity and Anti-Acceleration of DFB Active Fiber Grating Hydrophone .....	<i>Li Dongming Chen Jun Ge Huiliang et al.</i>	0305005
Visibility Analysis of Interferometric Fiber Bragg Grating Defined Fabry-Perot Sensor System under Gaussian Profile Approximation .....	<i>Niu Siliang Rao Wei Liang Xun et al.</i>	0305006
Design and Implementation of Comb Filter with Arbitrary Channel Spacing Based on Fiber Bragg Gratings .....	<i>Sun Guodan Wang Rong Pu Tao et al.</i>	0305007
Analysis and Experimental Study of Inner Stress for Metallized Fiber Bragg Gratings .....	<i>Pi Haoyang Liu Qiong Ye Qing et al.</i>	0305008
Method of Establishing Channel Model in Multiple-Beam Transmission and Reception FSO Systems .....	<i>Xu Jianwu Wang Hongxing Sun Xiaoming et al.</i>	0305009
K-Band and High Stability Optoelectronic Oscillator .....	<i>Sun Bin Yu Jinlong Wang Ju et al.</i>	0305010
<b>• 080 MEASUREMENT AND METROLOGY •</b>		
Study of Calibrating Algorithm for Wavefront Reference Source of Point Diffraction Interferometer .....	<i>Zhang Yu Jin Chunshui Ma Dongmei et al.</i>	0308001
A Concentric Circles and Wedge Grating-Based Camera Self-Calibration Method .....	<i>Xue Junpeng Su Xianyu Dou Yunfu et al.</i>	0308002
Maximum-Likelihood Estimation of Laser Pointing Errors Using Return Photons .....	<i>Zhou Lei Ren Ge Tan Yi et al.</i>	0308003
A Novel Method for 2D Phase Unwrapping Guided by Quality Cut .....	<i>Wu Yonghui Cheng Xiaosheng Cui Haihua et al.</i>	0308004
Measurement and Experimental Study of Laser Reflectance Characteristics of Camouflage Coat .....	<i>Ling Jun Zhang Shuanqin Wu Jianye et al.</i>	0308005
<b>• 090 HOLOGRAPHY AND INFORMATION PROCESSING •</b>		
Elemental Images Correction of Camera Array Pick-up for Three-Dimensional Integral Imaging .....	<i>Jiao Xiaoxue Zhao Xing Yang Yong et al.</i>	0309001
Experimental Study on Quantitative Phase Imaging by Digital Holographic Microscopy .....	<i>Ma Lihong Wang Hui Jin Hongzhen et al.</i>	0309002
<b>• 100 MICRO- AND NANO-OPTICS •</b>		
Numerical Analysis of Multi-Layer Optical Microsphere Cavity Coupled with a Waveguide .....	<i>Hao Peng Dong Yongchao Cao Zhaolou et al.</i>	0310001
<b>• 110 TERAHERTZ TECHNOLOGY •</b>		
Polarization Characteristics of One-Dimensional Metallic Wire-Grating Polarizer in Terahertz Frequency Range .....	<i>Liu Liming Zhao Guozhong Zhang Gaohui et al.</i>	0311001
<b>• 140 REMOTE SENSING AND SENSORS •</b>		
Surface Plasmon Resonance Sensor Based on Compact Disk Grating .....	<i>Liu Chang Zou Zhengfeng Chen Shufen et al.</i>	0314001
<b>• 160 OPTICAL DESIGN AND FABRICATION •</b>		
Research on Technology of Influence Square Aspheric Optical Element Processing Accuracy .....	<i>Wu Qingtang Nie Fengming Wang Dasen et al.</i>	0316001
A Digital-Grating-Based Alignment Technique in Maskless Lithography .....	<i>Tang Lulu Hu Song Xu Feng et al.</i>	0316002
Fabrication of Microlens Arrays Based on Spatial Light Modulator .....	<i>Shen Su Pu Donglin Hu Jin et al.</i>	0316003