

目 次

(加★文章为本期推荐优秀论文)

◆特约专栏-“光纤激光光束合成”◆

- 超短脉冲光纤激光相干合成(特邀).....栗荣涛,周朴,张鹏飞,等 0103001
基于双光栅的光纤激光光谱合成关键技术研究进展(特邀).....马毅,颜宏,孙殷宏,等 0103002
基于光纤自适应操控的激光相控阵技术研究进展(特邀).....耿超,李枫,黄冠,等 0103003
超短脉冲偏振分割放大技术研究进展(特邀).....杨康文,郝强,曾和平 0103004
高功率光纤激光器功率合束器的研究进展(特邀).....陈子伦,周旋风,王泽锋,等 0103005
液晶光学相控阵在高功率激光应用中的研究进展(特邀).....汪相如,周庄奇 0103006
基于光学零差偏振探测和锁相的合束激光偏振控制.....沈辉,全昭,杨依枫,等 0103007
外腔振荡式光纤激光光谱合成系统.....张璟璞,杨依枫,赵翔,等 0103008
空间光耦合自动对准方法与实现.....柯熙政,罗静,雷思琛 0103009
光谱合成激光阵列指向偏差的光束特性分析.....柏刚,沈辉,杨依枫,等 0103010
高能光纤激光器光束合成技术.....程雪,王建立,刘昌华 0103011

◆红外技术及应用◆

- 非均匀性校正的长波光导探测器读出电路设计.....钟燕平,袁红辉,鞠国豪 0104001
基于表面测温等方差拟合的管内流量及温度识别.....张林,杨立,寇蔚,等 0104002
同轴全反红外光学系统自身热辐射测量方法.....余菲,任栖锋,李华,等 0104003
红外光纤传像系统像质优化方法研究.....闫兴涛,李福,马小龙,等 0104004

◆激光技术及应用◆

- 纳秒激光辐照下 HgCdTe 光伏探测器的瞬态响应特性退化.....徐作冬,张检民,林新伟,等 0106001
基于等效电路参数提取的硅光电二极管激光损伤机理分析.....师宇斌,张检民,张震,等 0106002
飞秒激光诱导硅表面高频周期结构.....李志明,王玺,聂劲松,等 0106003
热处理对激光选区熔化成型 CoCrMo 合金性能影响研究.....张国庆,李晋,李俊鑫,等 0106004
钠信标测光理论与实验研究.....晋凯,魏凯,李敏,等 0106005
封闭空腔回转薄壁件的激光熔覆成形.....王聪,石世宏,方琴琴,等 0106006

◆激光器技术◆

- 采用复合滤波器的温度可调谐多波长光纤激光器(英文).....陈娇,童峥嵘,张卫华,等 0105001
半导体激光器双波长光纤耦合模块的 ZEMAX 设计.....刘翠翠,王翠鸾,王鑫,等 0105002
脉冲 LD 泵浦千赫兹 $1.57\mu\text{m}$ 全固态激光器.....岱钦,崔建丰,李业秋,等 0105003

◆光电测量◆

- ★基于偏振信息反演土壤湿度的方法.....张颖,余焱强,赵慧洁,等 0117001
实现惯测坐标系正交同步的系统级标定技术.....吉云飞,姬占礼,何小飞 0117002
衍射光学元件斜入射衍射效率的测量.....杨亮亮 0117003
圆光栅测角传感器在线自校准系统研制与实验.....张文颖,劳达宝,周维虎,等 0117004
部分补偿数字莫尔移相干涉的回程误差消除.....张丽琼,王劭溥,胡摇,等 0117005
“钢-铅”粘接结构非接触激光超声检测方法.....夏嘉斌,孙广开,宋潮,等 0117006

◆光通信与光传感◆

- 到达角起伏对上行星地激光通信系统性能的影响(英文).....王怡,王运敏,马晶 0122001

法布里-珀罗薄膜干涉的光纤温度传感器 高晓丹, 彭建坤, 吕大娟 0122002

◆先进光学材料◆

光开关玻璃的飞秒光学开关特性 孙志红, 张波, 夏彦文 0121001

THz 超材料的明暗模式耦合效应 袁宇阳, 张慧芳, 张学迁, 等 0121002

◆光谱探测与分析◆

FTIR 光谱仪中傅里叶插值采样方法的研究 李妍, 李胜, 高闽光, 等 0123001

偏振光谱仪偏振探测精度分析 李金金, 孙晓兵, 康晴, 等 0123002

◆信息获取与辨识◆

动态金字塔模型的红外图像 SR 重建 谢冰, 段哲民, 马鹏阁, 等 0126001

红外激光车载云台去抖动设计 熊晶莹, 戴明, 赵春蕾 0126002

基于深度学习的多视窗 SSD 目标检测方法 唐聪, 凌永顺, 郑科栋, 等 0126003

Contents

❖ Invited paper–Beam combining of fibre laser ❖

- Review on the progress in coherent beam combining of ultra-short fiber lasers(*Invited*) Su Rongtao, Zhou Pu, Zhang Pengfei, et al. 0103001
Recent progress of key technologies for spectral beam combining of fiber laser with dual-gratings configuration(*Invited*) Ma Yi, Yan Hong, Sun Yinhong, et al. 0103002
Research progress of laser phased array technique based on fiber adaptive manipulation(*Invited*) Geng Chao, Li Feng, Huang Guan, et al. 0103003
Advances in ultrashort divided-pulse amplification systems(*Invited*) Yang Kangwen, Hao Qiang, Zeng Heping 0103004
Review of all-fiber signal combiner for high power fiber lasers(*Invited*) Chen Zilun, Zhou Xuanfeng, Wang Zefeng, et al. 0103005
Research progress of liquid crystal optical phased array in high power laser applications(*Invited*) Wang Xiangru, Zhou Zhuangqi 0103006
Polarization control of combined laser beams based on optical homodyne polarization detection and phase locking Shen Hui, Quan Zhao, Yang Yifeng, et al. 0103007
Spectral beam combining system of fiber laser by external-cavity fiber oscillator Zhang Jingpu, Yang Yifeng, Zhao Xiang, et al. 0103008
Automatic alignment method and realization of space optical coupling Ke Xizheng, Luo Jing, Lei Sichen 0103009
Analysis of beam characteristic in spectral beam combining of laser array with pointing deviation Bai Gang, Shen Hui, Yang Yifeng, et al. 0103010
Beam combining of high energy fibre lasers Cheng Xue, Wang Jianli, Liu Changhua 0103011

❖ Infrared technology and application ❖

- Design of ROIC for long wave photoconductive detector with nonuniformity correction Zhong Yanping, Yuan Honghui, Ju Guohao 0104001
Identification of flow rate and temperature in the pipeline based on equal variance fitting of surface temperature measurement Zhang Lin, Yang Li, Kou Wei, et al. 0104002
Measurement method of self-thermal radiation for coaxial total reflection infrared optical system Yu Fei, Ren Qifeng, Li Hua, et al. 0104003
Research on the methods of image quality optimization in infrared system with imaging fiber bundle Yan Xingtao, Li Fu, Ma Xiaolong, et al. 0104004

❖ Laser technology and application ❖

- Transient response degradation of HgCdTe photovoltaic detectors under irradiation of nanosecond laser Xu Zuodong, Zhang Jianmin, Lin Xinwei, et al. 0106001
Analysis of laser-induced damage mechanism in Si photodiode based on parameter extraction of equivalent circuit Shi Yubin, Zhang Jianmin, Zhang Zhen, et al. 0106002
High frequency femtosecond laser induced periodic spatial structure on silicon surface Li Zhiming, Wang Xi, Nie Jinsong, et al. 0106003
Influence of heat treatment on the performance of selective laser melting manufacturing CoCrMo alloy Zhang Guoqing, Li Jin, Li Junxin, et al. 0106004
Theoretical and experimental study on photometry of a sodium laser guide star Jin Kai, Wei Kai, Li Min, et al. 0106005
Laser cladding forming of closed hollow cavity rotary thin-wall parts Wang Cong, Shi Shihong, Fang Qinjin, et al. 0106006

❖ Laser technology ❖

- Temperature tunable multiwavelength fiber laser by using compounded filter Chen Jiao, Tong Zhengrong, Zhang Weihua, et al. 0105001
Design of double wavelengths fiber coupled module of semiconductor diode laser by ZEMAX Liu Cuicui, Wang Cuiuan, Wang Xin, et al. 0105002
Pulse LD pumped kilohertz 1.57 μm solid-state laser Dai Qin, Cui Jianfeng, Li Yeqiu, et al. 0105003

❖ Photoelectric measurement ❖

- Retrieval method of soil moisture based on polarized information Zhang Ying, Yu Yanqiang, Zhao Huijie, et al. 0117001
Systemic calibration technology in view of the orthogonal synchronization of the inertial measurement frame Ji Yunfei, Ji Zhanli, He Xiaofei 0117002
Measurement of diffraction efficiency for diffractive optical elements with oblique incidence Yang Liangliang 0117003
Development and experiment of online self-calibration system for circular grating angle sensor Zhang Wenying, Lao Dabao, Zhou Weihu, et al. 0117004
Retrace error elimination for partial compensation digital Moiré phase shifting interferometry Zhang Liqiong, Wang Shaopu, Hu Yao, et al. 0117005
Non-contact laser ultrasonic testing of steel-plumbum bonding structure Xia Jiabin, Sun Guangkai, Song Chao, et al. 0117006

❖ Optical communication and optical sensing ❖

- Influence of angle-of-arrival fluctuations on ground-to-satellite laser uplink communication system Wang Yi, Wang Yunmin, Ma Jing 0122001
Optical fiber temperature sensor based on Fabry-Perot coating interference Gao Xiaodan, Peng Jiankun, Lv Dajuan 0122002

❖ Advanced optical materials ❖

- Femtosecond optical shutter properties of optical shutter glasses Sun Zhihong, Zhang Bo, Xia Yanwen 0121001
Coupling effect of bright and dark modes in THz metamaterials Yuan Yuyang, Zhang Huifang, Zhang Xueqian, et al. 0121002

❖ Spectrum detection and analysis ❖

- Fourier interpolative sampling algorithm in Fourier transform infrared spectrometer Li Yan, Li Sheng, Gao Minguang, et al. 0123001
Polarization detection accuracy analysis of spectropolarimeter Li Jinjin, Sun Xiaobing, Kang Qing, et al. 0123002

❖ Information acquisition and identification ❖

- SR reconstruction algorithm of infrared image based on dynamic pyramid model Xie Bing, Duan Zhemin, Ma Pengge, et al. 0126001
Dejitter design for infrared laser vehicle cloud platforms Xiong Jingying, Dai Ming, Zhao Chunlei 0126002
Object detection method of multi-view SSD based on deep learning Tang Cong, Ling Yongshun, Zheng Kedong, et al. 0126003