

## 目 次

### 综述

太赫兹时域频谱技术研究 ..... 梁达川,王 锴(1)

### 光学设计

几种光学超分辨技术研究 ..... 牛亚军,查为懿,常 军,沈本兰,杨海波,闫秀生,田 宏(8)  
光纤倒像器缺陷的自动分割 ..... 张俊生,王明泉,郭晋秦,张 堃,杨冰倩(14)

### 激光技术

分段侧泵双波长拉曼激光器 ..... 王 巍,杜鹏飞,高 淦,裘 园,耿东晔(18)  
KTP OPO产生2.7  $\mu\text{m}$ 波段高峰值功率激光实验研究 ..... 卞进田(22)  
CCD对飞秒激光与连续激光响应特性实验研究 ..... 官上洪,司汉英(26)  
不同脉宽532 nm脉冲激光辐照CCD实验研究 ..... 杨海波,蔡 军(30)  
液晶光学相控阵组件扫描精度分析研究 ..... 汪相如,黄子强(33)  
激光测向器及其应用 ..... 赵英超,宋毅恒(38)

### 信号与信息处理

基于激光回波信号的目标检测技术研究 ..... 刘严严,徐世伟(42)  
强光对红外图像质量的干扰分析研究 ..... 尚举邦,何大龙(46)

### 测试、试验与仿真

室温Tm:YLF板条激光器实验研究 ..... 安朝卫,关 松(53)  
一种对多光谱成像侦察设备的干扰效果评估方法 ..... 丛龙洋(57)  
激光电离空气的光学诊断实验研究 ..... 张晓许(60)  
Duffing型电路信号的特性与仿真分析 ..... 杜秀云(64)

### 结构与工艺

结构可靠性分析的通用生成函数法 ..... 尹洪举,蒋建军,赵录峰,于水游(68)  
一种提高车载稳向系统稳向精度方法的研究 ..... 刘 彬,高学鹏(75)

企业介绍:征稿简则(封二) 北京康特曼电子系统有限责任公司(封三)

# ELECTRO-OPTIC TECHNOLOGY APPLICATION

Vol.32 No.4(Series No.155)

Bimonthly, August 2017

## CONTENTS

### Summary

Research on Terahertz Time-domain Spectroscopy Technology ..... LIANG Da-chuan, WANG Kai(1)

### Optical Design

Research on Optical Super-resolution Technology

..... NIU Ya-jun, ZHA Wei-yi, CHANG Jun, SHEN Ben-lan, YANG Hai-bo, YAN Xiu-sheng, TIAN Hong(8)

Automatic Segmentation of Fiber Image Inverter Defect

..... ZHANG Jun-sheng, WANG Ming-quan, GUO Jin-qin, ZHANG Kun, YANG Bing-qian(14)

### Laser Technology

Segmented LD Arrays Side-pumped Double Wavelength Raman Laser

..... WANG Wei, DU Peng-fei, GAO Gan, QIU Yuan, GENG Dong-xian(18)

Experimental Research on 2.7  $\mu\text{m}$  Wave Band Laser with High Peak Power Generated by KTP Optical Parametric Oscillator

..... BIAN Jin-tian(22)

Experimental Research on Responsivity of CCD to Femto-second Laser and Continuous Wave Laser

..... GUAN Shang-hong, Si Han-ying(26)

Experimental Research on CCD Irradiated by 532 nm Pulse Laser with Different Pulse Width ..... YANG Hai-bo, CAI Jun(30)

Analysis and Research on Liquid Crystal Optical Phase Array Component Steering Precision

..... WANG Xiang-ru, HUANG Zi-qiang(33)

Laser Direction Finding Device and Application ..... ZHAO Ying-chao, SONG Yi-heng(38)

### Signal and Information Processing

Research on Target Detection Technology Based on Laser Echo Signal ..... LIU Yan-yan, XU Shi-wei(42)

Research on Infrared Image Quality Affected by Laser Jamming ..... SHANG Ju-bang, HE Da-long(46)

### Tests, Experiments and Simulation

Experimental Research on Tm:YLF Slab Laser at Room Temperature ..... AN Chao-wei, GUAN Song(53)

Jamming Effectiveness Evaluation Method for Multispectral Imaging Reconnaissance Equipment ..... CONG Long-yang(57)

Optics Diagnosis Experimental Research on Atmosphere Ionized by Laser ..... ZHANG Xiao-xu(60)

Characteristic and Simulation Analysis of Duffing Circuit Signal ..... DU Xiu-yun(64)

### Structure and Technology

Analysis of the Structural Reliability Based on Method of Universal Generating Function

..... YIN Hong-jun, JIANG Jian-jun, ZHAO Lu-feng, YU Shui-you(68)

Research on a Method to Improve Stable Precision of Vehicle Steering System ..... LIU Bin, GAO Xue-peng(75)