

光 学 学 报

第 31 卷 第 4 期 2011 年 4 月

(总第 349 期)

目 次

· 大气与海洋光学 ·

- 近海面异常折射对光电探测目标特征的影响分析 李云波 方正 张永刚等 0401001
- 孔径分布对横向剪切干涉仪波前复原的影响 彭爱华 叶红卫 李新阳 0401002
- 偏振滤波抑制大气背景光的性能计算模型 冯 斌 史泽林 艾 锐等 0401003
- 星载激光测距大气校正算法与模型研究 袁宏武 梅海平 黄印博等 0401004

· 探测器 ·

- 高精度紫外标准辐射计 王 锐 王淑荣 郭 劲等 0404001
- 多波段辐亮度标准传递探测器的研制 邹 鹏 郑小兵 吴浩宇等 0404002

· 衍射与光栅 ·

- 极紫外投影光刻掩模衍射简化模型的研究 曹宇婷 王向朝 邱自成等 0405001
- Ar^+ 离子束刻蚀制作凸面闪耀光栅 汪海宾 刘 全 吴建宏 0405002
- 金属光栅型偏振彩色滤光片 叶 燕 周 云 张 恒等 0405003

· 光纤光学与光通信 ·

- 双向振荡的偏振分离型光纤激光陀螺 饶范钧 陈淑芬 付 雷等 0406001
- CdSe/ZnS 量子点光纤光致荧光光谱的红移 程 成 林彦国 严金华 0406002
- 近红外宽带发光掺铋石英光纤的研制 吴金东 陈丹平 卢卫民等 0406003
- 单端腐蚀光纤布拉格光栅在低折射率区的理论模型及设计 罗彬彬 赵明富 周晓军等 0406004
- 基于光纤交叉相位调制的归零到非归零码转换 孟小俊 闫连山 潘 炜等 0406005
- 基于光纤光栅法布里-珀罗腔锁频原理的高灵敏度光纤振动传感器 张 乐 吴 波 叶 雯等 0406006

· 仪器, 测量与计量 ·

- 基于 S 变换的解相技术研究 蒋模华 陈文静 郑志平 0412001
- 相干合成线阵高斯光束扫描识别猫眼目标理论分析 赵延仲 孙华燕 郑勇辉等 0412002
- 基于数字全息显微成像的微光学元件三维面形检测 王云新 王大勇 赵 洁等 0412003
- 大尺寸平顶激光光束的监测补偿 赵天卓 樊仲维 余 锦等 0412004
- 基于时空域分析影像云纹的低频振动测量 史红健 朱飞鹏 何小元 0412005
- 双波长数字散斑相关法表面粗糙度测量 刘恒彪 周亚杰 王昌灵 0412006
- Wolter I 型反射镜面形检测装置的改进 崔天刚 张宏吉 马文生等 0412007
- 四读头法消除码盘偏心和振动对叠栅条纹相位测量的影响 朱 帆 吴易明 刘长春 0412008
- 激光干涉粒子成像测量干涉图处理算法研究 吕且妮 葛宝臻 陈益亮等 0412009
- 共轭傅里叶变换校正成像光谱重构 李苏宁 朱日宏 高志山等 0412010
- 用泽尼克多项式消除三维轮廓术中的条纹载频 吴志云 张启灿 0412011
- 基于大错位方棱镜的三维载频电子散斑干涉技术 孙 平 范香菊 王兴海 0412012

• 激光器与激光光学 •

传导冷却侧面抽运 Nd:YAG 脉冲激光器 肖崇深 万春明 凌 铭 0414001
高斯涡旋光束分析及其在中继镜系统中的应用 吴慧云 黄值河 吴武明等 0414002
宽调谐中红外差频激光及大气水汽浓度探测 汪六三 曹振松 王 欢等 0414003

• 机器视觉 •

基于神经网络的大范围空间标定技术 田 震 张 玘 熊九龙等 0415001
基于平面镜面向双摄像机视线追踪系统的标定方法 张 琼 王志良 迟健男等 0415002

• 材料 •

基于矩量法分析准光学波段的分形频率选择表面 王珊珊 高劲松 冯晓国等 0416001
Nd³⁺:Ca₉Y(VO₄)₇ 晶体生长和光谱分析 林州斌 张莉珍 王国富 0416002
纤锌矿 GaN/Al_{0.3}Ga_{0.7}N 量子阱中磁极化子能量 赵凤岐 萨初荣贵 乌仁图雅 0416003
磁性可调人工超常材料的表面等离子体激元 张惠芳 赵玉静 任海红等 0416004
长链 β-二酮环金属铂配合物的紫外-可见吸收光谱和三阶非线性光学系数的理论研究
..... 袁 波 卫 航 杨 帆等 0416005

• 显微 •

基于上海光源扫描透射 X 射线显微术的相干衍射成像模拟 谭兴兴 刘海岗 郭 智等 0418001
聚焦函数性能评价指标设计及最优函数选取 翟永平 周东翔 刘云辉等 0418002

• 非线性光学 •

马赫-曾德尔型色散渐减光纤干涉仪的孤子效应脉冲压缩研究 曹文华 徐 平 刘颂豪 0419001

• 光学设计与制造 •

用正弦光栅的朗奇法检验大口径非球面面形 郭春风 苏显渝 窦蕴甫等 0422001

• 光学器件 •

二维 Thue-Morse 型准周期光子晶体的制作与光学特性 冯亚萍 周 骏 阳明仰等 0423001

• 量子光学 •

自旋-1/2 近似下双势阱中纠缠制备和特性研究 陈 菁 郭彦青 史旭光 0427001
经典驱动 Tavis-Cummings 模型中原子纠缠特性的研究 韩 美 张英杰 夏云杰 0427002

• 薄膜 •

铜掺杂氧化镍电致变色薄膜的制备及性能 赵莉丽 苏 革 曹立新等 0431001
基于灵敏度控制的光学薄膜膜系主动设计方法 黄 云 吴素勇 杨开勇 0431002

• 视觉与色彩 •

液晶显示器色度特征化的分空间补偿模型 宫 睿 徐海松 张显斗等 0433001

• X 射线光学 •

毛细管 X 光会聚透镜在潜指纹提取中的应用 孙天希 刘志国 李玉德等 0434001

ACTA OPTICA SINICA

Vol. 31, No. 4 (Series No. 349) April 2011

CONTENTS

Atmospheric and Ocean Optics

- Refraction Effects on Electro-Optical Target Characteristic in Near Sea Surface *Li Yunbo Fang Zheng Zhang Yonggang et al.* 0401001
- Effect of Aperture Distribution on Wavefront Recovery of Lateral Shearing Interferometer
..... *Peng Aihua Ye Hongwei Li Xinyang* 0401002
- A New Computational Model for Performance of Airlight Rejection Utilizing Polarization Filtering
..... *Feng Bin Shi Zelin Ai Rui et al.* 0401003
- Research on Atmospheric Refraction Correction Algorithm and Model for Satellite Laser Range-Finding
..... *Yuan Hongwu Mei Haiping Huang Yinbo et al.* 0401004

Detectors

- High-Accuracy Ultraviolet Standard Radiometer *Wang Rui Wang Shurong Guo Jin et al.* 0404001
- Development of Multi-Band Radiance Standard Transfer Detector *Zou Peng Zheng Xiaobing Wu Haoyu et al.* 0404002

Diffraction and Gratings

- Simplified Model for Mask Diffraction in Extreme-Ultraviolet Projection Lithography
..... *Cao Yuting Wang Xiangzhao Qiu Zicheng et al.* 0405001
- Fabrication of Convex Blazed Grating By Ar⁺ Ion-Beam Etching *Wang Haibin Liu Quan Wu Jianhong* 0405002
- Polarizing Color Filter Based on a Submicron Metal Grating *Ye Yan Zhou Yun Zhang Heng et al.* 0405003

Fiber Optics and Optical Communications

- Bidirectional Oscillations in Fiber Ring Laser Gyroscope with Polarization Splitting Filter
..... *Rao Fanjun Chen Shufen Fu Lei et al.* 0406001
- Red Shift of Photoluminescence Spectrum of CdSe/ZnS-Quantum-Dot Doped Fiber *Cheng Cheng Lin Yanguo Yan Jinhua* 0406002
- Fabrication of Bi-Doped Silica Fibers with Near Infrared Broadband Emission *Wu Jindong Chen Danping Lu Weimin et al.* 0406003
- Theoretical Model and Design of Single-End Etched Fiber Bragg Grating in Low Refractive-Index Area
..... *Luo Binbin Zhao Mingfu Zhou Xiaojun et al.* 0406004
- All-Optical RZ to NRZ Format Conversion Based on Fiber Cross-Phase Modulation
..... *Meng Xiaojun Yan Lianshan Pan Wei et al.* 0406005
- Highly Sensitive Fiber-Optic Vibration Sensor Based on Frequency-Locking of a FBG Fabry-Perot Cavity
..... *Zhang Le Wu Bo Ye Wen et al.* 0406006

Instrumentation, Measurement and Metrology

- Research of Phase Demodulation Technique Based on S-Transform *Jiang Mohua Chen Wenjing Zheng Zhiping* 0412001
- Theoretical Analysis of Scanning and Identifying Cat-Eye Target with Coherently Combined Array Gaussian Beams
..... *Zhao Yanzhong Sun Huayan Zheng Yonghui et al.* 0412002
- 3D Profile Measurement for Micro-Optical Component by Using Digital Holographic Microscopy
..... *Wang Yunxin Wang Dayong Zhao Jie et al.* 0412003
- Monitoring and Compensation of Large-Size Flat-Top Laser Beam *Zhao Tianzhuo Fan Zhongwei Yu Jin et al.* 0412004
- Low-Frequency Vibration Measurement Based on Spatiotemporal Analysis of Shadow Moiré
..... *Shi Hongjian Zhu Feipeng He Xiaoyuan* 0412005
- Surface Roughness Measurement Based on Dichromatic Digital Speckle Correlation
..... *Liu Hengbiao Zhou Yajie Wang Changling* 0412006
- Improvements of Surface Profile Measuring Device for Wolter Type-I Mirror
..... *Cui Tiangang Zhang Hongji Ma Wensheng et al.* 0412007
- Eliminating Influence of Grating Encoder's Eccentricity and Vibration to Moiré Fringes Signal by Four Reading Heads
..... *Zhu Fan Wu Yiming Liu Changchun* 0412008
- An Algorithm for Interferometric Image Processing of Interferometric Particle Imaging
..... *Lü Qieni Ge Baozhen Chen Yiliang et al.* 0412009
- Fourier Conjugate Correction Spectral Reconstruction for Fourier-Transform Spectrometer
..... *Li Suning Zhu Rihong Gao Zhishan et al.* 0412010
- Carrier Removal Method in Fringe Projection Profilometry Using Zernike Polynomials *Wu Zhiyun Zhang Qican* 0412011

Three-Dimensional Electronic Speckle Pattern Interferometry with Carrier Modulation by Using Large-Shearing Block Prism
..... Sun Ping Fan Xiangju Wang Xinghai 0412012

Lasers and Laser Optics

Side-Pumped Nd:YAG Pulsed Laser with Conduction Cooling Xiao Chongli Wan Chunming Ling Ming 0414001

Analysis of Gaussian-Vortex Beam and Its Application in a Relay Mirror System
..... Wu Huiyun Huang Zhihe Wu Wuming et al. 0414002

A Widely Tunable Mid-Infrared Difference Frequency Generation Laser and Its Detection of Atmospheric Water
..... Wang Liusan Cao Zhensong Wang Huan et al. 0414003

Machine Vision

Large-Scale Camera Calibration with Neural Network Tian Zhen Zhang Qi Xiong Jiulong et al. 0415001

Calibration for Gaze Tracking System Based on Stereo Cameras and Plane Mirror
..... Zhang Qiong Wang Zhiliang Chi Jiannan et al. 0415002

Materials

Design Methods of Fractal Frequency Selective Surface Based on Quasi-Optical Waveband
..... Wang Shanshan Gao Jinsong Feng Xiaoguo et al. 0416001

Growth and Spectroscopic Properties of $\text{Nd}^{3+}:\text{Ca}_9\text{Y}(\text{VO}_4)_7$ Crystal Lin Zhoubin Zhang Lizhen Wang Guofu 0416002

Energy of Magnetopolaron in Wurtzite $\text{GaN}/\text{Al}_{0.3}\text{Ga}_{0.7}\text{N}$ Quantum Well Zhao Fengqi Sachuronggui Wurentuya 0416003

Surface Plasmon Polaritons of Magnetically Tunable Metamaterials Zhang Huifang Zhao Yujing Ren Haihong et al. 0416004

Theoretical Studies on UV-Vis Absorption Spectra and the Third-Order Nonlinear Optical Coefficients of Cyclometalated Platinum Complexes
with Long Chain β -Diketonate Ancillary Ligands Yuan Bo Wei Hang Yang Fan et al. 0416005

Microscopy

Simulation of Coherent Diffraction Imaging Based on Scanning Transmission X-Ray Microscopy of Shanghai Synchrotron Radiation Facility
..... Tan Xingxing Liu Haigang Guo Zhi et al. 0418001

Design of Evaluation Index for Auto-Focusing Function and Optimal Function Selection
..... Zhai Yongping Zhou Dongxiang Liu Yunhui et al. 0418002

Nonlinear Optics

Soliton-Effect Pulse Compression in a Dispersion-Decreasing Fiber-Based Mach-Zehnder Interferometer
..... Cao Wenhua Xu Ping Liu Songhao 0419001

Optical Design and Fabrication

Large-Aperture Aspheric Surfaces Testing by Using Sinusoidal Grating Based on Ronchi Method
..... Guo Chunfeng Su Xianyu Dou Yunfu et al. 0422001

Optical Devices

Fabrication and Optical Properties of Two-Dimensional Thue-Morse Quasicrystals
..... Feng Yaping Zhou Jun Yang Mingyang et al. 0423001

Quantum Optics

Study on Preparation and Characteristics of Quantum Entanglement in Double Wells Using a Spin - 1/2 Approximation
..... Chen Jing Guo Yanqing Shi Xuguang 0427001

Entanglement Characteristics of Two Entangled Atoms in Classical Driven Tavis-Cummings Model
..... Han Mei Zhang Yingjie Xia Yunjie 0427002

Thin Films

Fabrication and Properties of Cu-Doped NiO Electrochromic Thin Films Zhao Lili Su Ge Cao Lixin et al. 0431001

Active Design of Multilayer Optical Coatings Based on Sensitivity Control Huang Yun Wu Suyong Yang Kaiyong 0431002

Vision and Color

Sub-Space Compensation Model for Accurate Colorimetric Characterization of Liquid Crystal Displays
..... Gong Rui Xu Haisong Zhang Xiandou et al. 0433001

X-ray Optics

Application of Capillary Focusing X-Ray Lens in Obtaining Latent Fingerprint Sun Tianxi Liu Zhiguo Li Yude et al. 0434001