

光 学 学 报

第 34 卷 第 9 期 2014 年 9 月

(总第 390 期)

目 次

· 大气与海洋光学 ·

- 热晕效应模式法自适应光学校正的数值模拟 闫 伟 陈志华 杜太焦等 0901001
- 氧气吸收被动测距技术中的折射吸收误差 闫宗群 刘秉琦 华文深等 0901002
- 基于大气红外探空仪和中分辨率成像光谱仪观测的冰云大气红外辐射特性研究 曹亚楠 魏合理 边 建 0901003
- 边缘修正 CV 模型的卫星遥感云图分割方法 宋 昱 吴一全 毕硕本 0901004

· 原子与分子物理 ·

- 微波腔镀银实现漫反射冷却的实验研究 孟艳玲 郑本昌 刘 鹏等 0902001

· 衍射与光栅 ·

- 90°顶角中阶梯光栅的研制 王 琦 郑衍畅 邱克强等 0905001
- 极紫外光刻含缺陷多层膜衍射谱仿真简化模型 刘晓雷 李思坤 王向朝 0905002
- 扫描干涉场曝光系统中周期设定对曝光刻线相位的影响 姜 珊 巴音贺希格 李文昊等 0905003

· 光纤光学与光通信 ·

- 基于码移键控-光码分多址技术的光隐匿通信系统实验 朱华涛 蒲 涛 方 涛等 0906001
- 菱形空气孔的单一偏振单模太赫兹光子晶体光纤 汪静丽 陈鹤鸣 0906002
- 增大基于电光相位调制的时间透镜孔径的参数调制法 常 硕 娄淑琴 李 博等 0906003
- 铌酸锂偏振编码器的偏振稳定性研究 王一旭 吴重庆 李政勇等 0906004

· 傅里叶光学与光信号处理 ·

- 利用 QR 码在光学干涉多图像加密系统中实现信息高质量恢复 王红娟 王志鹏 张颖颖等 0907001

· 图像处理 ·

- 基于贝叶斯估计的 IRFPA 自适应非均匀性校正 冷寒冰 谢庆胜 刘 伟等 0910001
- 基于分类器集成的高光谱遥感图像分类方法 樊利恒 吕俊伟 邓江生 0910002
- 基于颤振探测和编码曝光的快速图像复原方法 何丽蓉 黄加紫 冯华君等 0910003
- 基于光孔阵列的集成成像三维显示方法 刘 尧 邓 欢 罗成高等 0910004

· 成像系统 ·

- 信噪比对航空相机调焦精度的影响 孟繁浩 丁亚林 王德江等 0911001
- 基于随机并行梯度速降算法的光刻机光源与掩模联合优化方法 李兆泽 李思坤 王向朝 0911002
- 棱镜-光栅组合色散型超光谱成像系统的优化设计 杨增鹏 唐玉国 巴音贺希格等 0911003
- 照明方式对 PIE 成像质量影响的研究 程 君 刘 诚 朱健强 0911004

· 仪器,测量与计量 ·

- 提高平行光管分划板装调精度新方法研究 何 煦 吴国栋 0912001
- 星载遥感仪器太阳漫透射板紫外辐照特性 李 博 0912002
- 一种消除可调谐激光器空回误差的方法 相成志 龚 威 马 昕等 0912003

• 激光器与激光光学 •

100 W, 2.6 mJ 衍射极限输出的全光纤主振荡功率放大脉冲激光器 史 尘 王小林 陶汝茂等 0917001

• 机器视觉 •

嫦娥三号全景相机图像全景镶嵌方法的研究 吴凡路 刘建军 任 鑫等 0915001

基于平面镜成像的单摄像机立体视觉传感器研究 冯晓锋 潘迪夫 0915002

基于深度图像利用随机森林实现遮挡检测 张世辉 刘建新 孔令富 0915003

• 材料 •

新型黄绿色荧光粉 $BaMoO_4:Pr^{3+}$ 的制备与光致发光性质研究 张伟杰 冯文林 程雪玲等 0916001

UV 胶基底中 IV-VI 族 PbSe 纳晶量子点近红外光谱的吸收截面和辐射截面 程 成 徐银辉 0916002

水热腐蚀时间对铁钝化多孔硅表面形貌和光致发光的影响 陈景东 张 婷 汪庆祥 0916003

• 光学设计与制造 •

半透膜阵列平板波导式头戴显示器光学系统设计 呼新荣 刘 英 王 健等 0922001

适于逆光条件的消鬼像镜头光学设计与实验验证 石荣宝 季轶群 赵知诚等 0922002

腔体吸收器位置对太阳能槽式系统光热转换性能的影响 陈 飞 李 明 许成木等 0922003

消谱线弯曲棱镜-光栅型成像光谱仪设计 陈洪福 巩 岩 骆 聪等 0922004

基于遗传算法的渐进多焦点镜片子午线优化设计 唐运海 吴泉英 陈晓翌等 0922005

• 光学器件 •

基于微流控技术的新型可调光衰减器 万 静 郭安全 严 峰等 0923001

畴腐蚀掺镁铈酸锂光分束器的泰伯效应研究 范天伟 陈云琳 0923002

基于空芯光纤的新型化学发光传感系统 盛小夏 陈国平 石艺尉 0923004

• 表面光学 •

基于表面等离激元光镊的新型纳米热源研究 沈军峰 张翠娇 张聿全等 0924001

• 遥感与传感器 •

合成孔径激光成像雷达散斑效应分辨单元成像研究 许 倩 周 煜 孙建锋等 0928001

• 光谱学 •

基于潜在语义分析与 NIR 的中药材分类研究 陈晓峰 龙长江 牛智有等 0930001

基于偏最小二乘回归的藻类荧光光谱特征波长选取 余晓娅 张玉钧 殷高方等 0930002

基于大样本土壤光谱数据库的氮含量反演 王乾龙 李 硕 卢艳丽等 0930003

用归一化光谱分布差异表征 AlGaInP 基 LED 阵列的平均结温 饶 丰 朱锡芳 徐安成 0930004

基于色素特征荧光光谱的浮游植物分类测量方法 殷高方 赵南京 胡 丽等 0930005

透镜到样品的距离对激光诱导等离子体的影响 王静鸽 陈兴龙 付洪波等 0930006

• 薄膜 •

交联孔隙结构 TiO_2 -PEDOT:PSS 纳米复合薄膜的制备及作为对电极的应用 徐顺建 黄 勇 钟 炜等 0931001

• 视觉与色彩 •

一种激光彩虹全息印刷品的颜色测量方法 冯之幸 章春娥 王岩松 0933001

简易-环境光对比度与恰可察觉明度阈值建模 卢智平 刘 真 张建青 0933002

CONTENTS

Atmospheric and Oceanic Optics

Numerical Simulation of Modal Method Based Adaptive Optics Correction Thermal Blooming	<i>Yan Wei Chen Zhihua Du Taijiao et al.</i>	0901001
Refraction Absorption Error of Passive Ranging Technology Based on Oxygen Absorption	<i>Yan Zongqun Liu Bingqi Hua Wenshen et al.</i>	0901002
Study of Atmospheric Radiative Properties at Infrared Bands under Ice Clouds Based on Atmospheric Infrared Sounder and Moderate Resolution Imaging Spectroradiometer Observation	<i>Cao Yanan Wei Heli Bian Jian</i>	0901003
Satellite Remote Sensing Cloud Image Segmentation Using Edge Corrected CV Model	<i>Song Yu Wu Yiquan Bi Shuoben</i>	0901004

Atomic and Molecular Physics

Experiment Studies on the Diffuse Light Cooling by Using Silver Plated Microwave Cavity	<i>Meng Yanling Zheng Benchang Liu Peng et al.</i>	0902001
---	--	---------

Diffraction and Gratings

Fabrication of Echelle Gratings with 90° Apex Angle	<i>Wang Qi Zheng Yanchang Qiu Keqiang et al.</i>	0905001
Simplified Model for Defective Multilayer Diffraction Spectrum Simulation in Extreme Ultraviolet Lithography	<i>Liu Xiaolei Li Sikun Wang Xiangzhao</i>	0905002
Effect of Period Setting Value on Printed Phase in Scanning Beam Interference Lithography System	<i>Jiang Shan Bayanheshig Li Wenhao et al.</i>	0905003

Fiber Optics and Optical Communications

Experiment of Optical Stealth Communication System Based on Code Shift Keying-Optical Code Division Multiple Access Technology	<i>Zhu Huatao Pu Tao Fang Tao et al.</i>	0906001
Single-Polarization Single-Mode Rhombic-Hole Terahertz Photonic Crystal Fibers	<i>Wang Jingli Chen Heming</i>	0906002
Parameter Modulation to Method Expand Aperture of Time Lens Based on Electro-Optical Phase Modulation	<i>Chang Shuo Lou Shuqin Li Bo et al.</i>	0906003
Research on Polarization Stability of Lithium Niobate Polarization Encoder	<i>Wang Yixu Wu Chongqing Li Zhengyong et al.</i>	0906004

Fourier Optics and Optical Signal Processing

Using QR Codes in Multi-Image Optical Interference Encryption System to Reconstruct High Quality Original Information	<i>Wang Hongjuan Wang Zhipeng Zhang Yingying et al.</i>	0907001
---	---	---------

Image Processing

Adaptive Nonuniformity Correction for IRFPA Based on Bayesian Estimation	<i>Leng Hanbing Xie Qingsheng Liu Wei et al.</i>	0910001
Classification of Hyperspectral Remote Sensing Images Based on Bands Grouping and Classification Ensembles	<i>Fan Liheng Lü Junwei Deng Jiangsheng</i>	0910002
Research on Fast Restoration of Blurred Vibration Image Based on Vibration Detection and Coded Exposure	<i>He Lirong Huang Jiazi Feng Huaqun et al.</i>	0910003
An Integral Imaging Three Dimensional Display Method Based on Aperture Stop Array	<i>Liu Yao Deng Huan Luo Chenggao et al.</i>	0910004

Imaging Systems

Analysis Influence of Signal to Noise Ratio on Auto-Focusing Precision of Aerial Camera	<i>Meng Fanhao Ding Yalin Wang Dejiang et al.</i>	0911001
Source and Mask Optimization Using Stochastic Parallel Gradient Descent Algorithm in Optical Lithography	<i>Li Zhaoze Li Sikun Wang Xiangzhao</i>	0911002
Optimization Design Method for Optical System of Prism-Grating Ultraspectral Imaging Spectrometers	<i>Yang Zengpeng Tang Yuguo Bayanheshig et al.</i>	0911003
Influence of Illumination to the PIE Imaging Method	<i>Cheng Jun Liu Cheng Zhu Jianqiang</i>	0911004

Instrumentation, Measurement and Metrology

Procedure to Improve Alignment Accuracy of Collimator Reticle	<i>He Xu Wu Guodong</i>	0912001
Vacuum Ultraviolet Radiation Characteristics of Diffuser in Spaceborne Remote Sensing Instruments	<i>Li Bo</i>	0912002
A Method Toeliminate the Backlash Error of Tunable Laser	<i>Xiang Chengzhi Gong Wei Ma Xin et al.</i>	0912003

Lasers and Laser Optics

100 W, 2.6 mJ Diffraction Limit Output All-Fiber Master Oscillator Power Amplification Pulse Laser
..... Shi Chen Wang Xiaolin Tao Rumao et al. 0917001

Machine Vision

Research on Panoramic Mosaics Method of Chang'E-3 Pancam Images Wu Fanlu Liu Jianjun Ren Xin et al. 0915001
Study of Single Camera Stereo Vision Sensor Based on Plane Mirror Imaging Feng Xiaofeng Pan Difu 0915002
Using Random Forest for Occlusion Detection Based on Depth Image Zhang Shihui Liu Jianxin Kong Lingfu 0915003

Materials

Preparation and Photoluminescent Properties of a Novel Yellow-Green $\text{BaMoO}_4:\text{Pr}^{3+}$ Phosphor
..... Zhang Weijie Feng Wenlin Cheng Xueling et al. 0916001
Near IR Absorption-Emission Cross-Sections of IV-VI Group PbSe Quantum Dots Doped in UV Gel Cheng Cheng Xu Yinhuai 0916002
Impact of Hydrothermal Etching Time on Porous Morphology and Photoluminescence of Iron-Passivated Porous Silicon
..... Chen Jingdong Zhang Ting Wang Qingxiang 0916003

Optical Design and Fabrication

Optical System Design of Head-Mounted Display Based on Planar Waveguide of Semi-Transparent Film Array
..... Hu Xinrong Liu Ying Wang Jian et al. 0922001
Optical Design and Experimental Verification of a Reduced Ghost Image Lens for Backlight Condition
..... Shi Rongbao Ji Yiqun Zhao Zhicheng et al. 0922002
Influence of Photo-Thermal Conversion Characteristics by the Position of Cavity Absorber in Parabolic Trough Solar Concentrator
..... Chen Fei Li Ming Xu Chengmu et al. 0922003
Design of Prism-Grating Imaging Spectrometer with Eliminating Spectral Line Curvature
..... Chen Hongfu Gong Yan Luo Cong et al. 0922004
Optimization Design of the Meridian Line of Progressive Addition Lenses Based on Genetic Algorithm
..... Tang Yunhai Wu Quanying Chen Xiaoyi et al. 0922005

Optical Devices

A New Variable Optical Attenuator Based on Microfluidics Wan Jing Guo Anjin Yan Feng et al. 0923001
Research of Talbot Effect of Optical Beam Splitter Fabricated by Selective Etching of MgO-doped LiNbO_3 Crystal
..... Fan Tianwei Chen Yunlin 0923002
Novel Chemiluminometric Sensing System Based on Hollow Fiber Sheng Xiaoxia Chen Guoping Shi Yiwei 0923004

Optics at Surfaces

Study on Novel Nano-Heating Source Based on Plasmonic Nanotweezers Shen Junfeng Zhang Cuijiao Zhang Yuquan et al. 0924001

Remote Sensing and Sensors

Research on the Speckle Influenced Resolution Imaging of Synthetic Aperture Imaging Ladar
..... Xu Qian Zhou Yu Sun Jianfeng et al. 0928001

Spectroscopy

Classification Research of Chinese Medicine Based on Latent Semantic Analysis and NIR
..... Chen Xiaofeng Long Changjiang Niu Zhiyou et al. 0930001
Feature Wavelength Selection of Phytoplankton Fluorescence Spectra Based on Partial Least Squares
..... Yu Xiaoya Zhang Yujun Yin Gaofang et al. 0930002
Nitrogen Content Inversion Based on Large Sample Soil Spectral Library Wang Qianlong Li Shuo Lu Yanli et al. 0930003
Determining the Average Junction Temperature of AlGaInP-Based LED Array with the Difference of Normalized Spectral Distribution
..... Rao Feng Zhu Xifang Xu Ancheng 0930004
Classified Measurement of Phytoplankton Based on Characteristic Fluorescence of Photosynthetic Pigments
..... Yin Gaofang Zhao Nanjing Hu Li et al. 0930005
Influence of the Lens-to-Sample Distance on Laser-Induced Plasma Wang Jingge Chen Xinglong Fu Hongbo et al. 0930006

Thin Films

Synthesis of TiO_2 -PEDOT:PSS Nanocomposite Film and Its Application for Dye-Sensitized Solar Cells as Counter Electrode
..... Xu Shunjian Huang Yong Zhong Wei et al. 0931001

Vision and Color

A New Method of Color Measurement for Laser Rainbow Holographic Printed Matter
..... Feng Zhixing Zhang Chun'e Wang Yansong 0933001
Model of Simplified Ambient Contrast and Just-Noticeable Lightness Threshold Lu Zhiping Liu Zhen Zhang Jianqing 0933002