

## 目 录

### · 激光光谱 ·

- 采用空心阴极放电灯的激光感生荧光技术测量氖和铜原子高激发态寿命·····殷立峰等 (673)
- HCD 中氩离子的光电流效应·····李世芳等 (679)
- 求解原子光谱线同位素位移的数学描述·····宋耀祖等 (685)
- 钠原子的饱和三步共振光离化·····厚美英等 (691)

### · 薄膜光学 ·

- 超短脉冲和腔内色散·····王之江等 (697)

### · 激光 ·

- “新月”形隐埋波导耦合集成型激光器的动态特性分析·····王德宁等 (702)
- 激光高斯光束的两维整形·····张小洁等 (709)

### · 光学设计 ·

- 利用复眼柱面透镜的非接触光刻系统·····郝沛明 (717)

### · 光学测试 ·

- 激光散斑反差与表面粗糙度关系的理论分析·····毛文懿等 (724)
- 喇曼分光仪中杂散光的测试·····朱涵如 (730)

### · 简讯 ·

- 双光子过程光子统计·····何林生 (735)
- 一种错位量连续可调的散斑照相法·····姚刚 (744)
- 漂白银盐干板形成位相编码片的特性分析·····康辉 (749)
- 掺染料向列相液晶筒并四波混频各向异性的机制·····初桂荫 (754)
- 自由电子激光器中电子轨道的稳定性分析·····王元殿 (757)
- 位相光栅整形激光束剖面·····梁向春等 (761)
- CaOH 自由基  $A-X(100)-(000)$  跃迁的激光激发荧光光谱研究及其转动温度测量·····朱清时等 (765)

编辑者 中国光学学会  
《光学学报》编辑委员会  
(上海 8211 邮政信箱)  
(邮政编码 201849)

出版者 上海科学技术出版社

印刷者 上海商务印刷厂

国内发行 上海市报刊发行处

国内订阅 全国各地邮局

国外总发行 中国国际图书贸易总公司  
(中国国际书店)  
(北京 2820 信箱)

## CONTENTS

### Laser Spectroscopy

- Lifetime measurement of high excited states of atoms using laser-induced fluorescence technique ..... *Yin Lifeng et al.* (673)
- Optogalvanic effect of ArII in HCD ..... *Li Shifang et al.* (679)
- Evaluation of isotope shifts in atomic spectral profiles from profiles of Fabry-Perot interferograms ..... *Song Yaoyu et al.* (685)
- Saturated three-photon ionization of Na atoms ..... *Ho Meiyang et al.* (691)

### Thin Film Optics

- Ultrashort pulses and intracavity dispersion ..... *Wang Zhijiang et al.* (697)

### Lasers

- Analysis of dynamic characteristics of 'crescent' GaAs/(GaAl)As lasers integrated with buried passive waveguide ..... *Wang Dening et al.* (702)
- Two-dimensional intensity modification of a Gaussian laser beam by acousto-optic effect ..... *Zhang Xiaojie et al.* (709)

### Optical Design

- A non-contact photolithographic system with fly's eye cylindrical lens ..... *Hao Peiming* (717)

### Optical Measurement

- Theoretical analysis of the relationship between contrast of laser speckle pattern and surface roughness ..... *Mao Wenyi et al.* (724)
- Measurement of stray light in Raman spectrometers ..... *Zhu Hanru* (730)

### Research Notes

- Photon statistics for two-photon processes ..... *He Linsheng* (735)
- A method of speckle interferometry with continually adjustable shearing amount ..... *Yao Gang* (744)
- Characteristics of phase encoding plates formed by bleaching silver-halide films ..... *Kang Hui* (749)
- Mechanism of the anisotropic property of DFWM in dye-dissolving nematic liquid crystal ..... *Chu Guiyin et al.* (754)
- Stability analysis of electron trajectories in free-electron lasers with an axial magnetic field ..... *Wang Yuandian* (757)
- Shaping of laser beam profiles with a phase grating ..... *Liang Xiangchun et al.* (761)
- Laser excitation fluorescence spectroscopy of  $A-X(100)-(000)$  transitions of CaOH radicals and measurement of their rotational temperature ..... *Zhu Qingshi et al.* (765)

## THE OPTICAL SOCIETY OF CHINA

Editorial Board of Acta Optica Sinica

(P. O. Box 8211, Shanghai, China)

Distributed by China International Book Trading Corporation

(Distributed by Guoji Shudian)

(P. O. Box 2820, Beijing, China)