

## 目 录

- 光谱 •
- 激光产生的 CuXXII 离子 X 光谱线辨认 ..... 郑丹青等 (769)
- 激光 •
- 半导体激光器线宽压窄及其特性研究 ..... 柴燕杰等 (775)
- 1.19 米相互作用长度的喇曼自由电子激光器实验 ..... 陆载通等 (780)
- 光纤环形外腔半导体激光器频偏特性研究 ..... 张建平等 (787)
- 非线性光学 •
- 银分子中电荷转移效应及其对喇曼信号的增强研究 ..... 苗润才等 (792)
- 光纤 •
- 光纤放大器的半经典分析 ..... 张明德等 (797)
- 多模光纤 Fabry-Pérot 干涉仪的分析 ..... 战元龄等 (803)
- 可调抛光型光纤耦合器对位公差的分析 ..... 严方等 (810)
- 薄膜光学 •
- ZnS 和 MgF<sub>2</sub> 薄膜的离子辅助淀积 ..... 顾培夫等 (815)
- 测量液体和气体折射率的集成光学技术单侧和双侧漏模法 ..... 高福斌等 (823)
- 膜系结构对激光损伤阈值的影响 ..... 吴周令等 (830)
- 光学设计 •
- 球面端面的锥形梯度折射率透镜的近轴成像特性 ..... 廖廷伟等 (836)
- 信息处理 •
- 用投影法实现符号代换 ..... 薛唯等 (843)
- 关于高速摄影系统的信噪比 ..... 李德熊 (848)
- 光电设计 •
- 用电光相位调制器显示超声行波波前 ..... 易明等 (853)
- 传输 •
- 混合型大电流光纤传感器的研究 ..... 陈锡坤等 (860)
- 简讯 •
- '89 国际光学薄膜会议在上海举行 ..... 乙民 (802)

## CONTENTS

### Spectroscopy

- Classification of CuXXII X-ray spectra in laser-produced plasma ..... *Zhen Dangqin et al.* (769)

### Lasers

- Linewidth reduction of semiconductor lasers and study of linewidth property .....  
..... *Chai Yanjie et al.* (775)
- Experimental study of a Raman free electron laser with 1.19m interaction length .....  
..... *Lu Zaitong et al.* (780)
- Study of chirping properties of semiconductor laser with optical fiber ring feedback .....  
..... *Zhang Jianping et al.* (787)

### Nonlinear Optics

- Charge-transfer and its enhancement for Raman signal in Ag-molecule system .....  
..... *Miao Rencai et al.* (792)

### Optical Fiber

- Semiclassical analysis of optical fiber amplifiers ..... *Zhang Mingde et al.* (797)
- Theoretical analysis of multimode fiber Fabry-Pérot interferometer ..... *Zhan Yuanling et al.* (803)
- Analysis for counterpoint tolerances of tunable polishing optical-fiber couplers .....  
..... *Yan Fang et al.* (810)

### Thin Film Optics

- Ion-assisted deposition of ZnS and MgF<sub>2</sub> films ..... *Gu Peifu et al.* (815)
- A integrated optics technique for measuring the refractive indices of liquid and gas: one and  
two-side leaky mode method ..... *Gao Fubin et al.* (823)
- Damage threshold dependence of multilayer laser mirror on coating design .....  
..... *Wu Zhouling et al.* (830)

### Optical Design

- Paraxial imaging characteristics of a conical GRIN rod lens with spherical end surface .....  
..... *Liao Tingdi et al.* (836)

### Information Processing

- Symbolic substitution using shadow-casting ..... *Xue Wei et al.* (843)
- Amount of information of high-speed photographic systems ..... *Li Dexiong* (848)

### Electro-Optics Device

- A novel temporal correlator—display ultrasonic traveling wavefront by electrooptic modulator  
..... *Yi Ming et al.* (853)

### Transmission

- Studies on hybrid large current fiber sensor ..... *Chen Xikun et al.* (860)

### Research Notes

- The '89 International Symposium on Optical Coatings held in Shanghai, China ..... *Yi Min* (802)