

## 目 录

### 创刊十周年 特约文章

- 我国集成光学过去十年的回顾与今后的展望 ..... 于荣金 (193)
- 关于非均匀性对单横模激光振荡特性的影响 ..... 王裕民 (197)
- 低击穿电压氮-氩激光管击穿过程的理论分析 ..... 胡志强 施迎难 齐小石 肖建宁 (205)
- 宽带激光的产生及宽、窄带激光打靶产生的光谱比较 ..... 丁丽明 梅 广 谭维翰 林尊琪 (210)
- 用于遥感探测大气水汽分布的电光快速调谐红宝石激光器 ..... 赵燕曾 伍少明 金惠淑 张春林 黄忠芳 黄其荣 (213)
- 超音速  $F-F_2-NH_3$  体系中产生的  $NF(b^1\Sigma^+)$ ——一种可能的可见化学激光介质 ..... 庆 琦 黄瑞平 崔铁基 袁启年 桑凤亭 张存浩 (221)
- 重复率光泵染料锁模的研究 ..... 金德运 黄国松 周复正 (225)
- 红外激光窗口 KCl 多晶材料的制备和性能 ..... 权宁三 陈国权 高兆发 金继华 (228)
- 铜蒸气激光器放电回路元件的最佳化 ..... 黄振国 陈 堤 单焕炎 (233)
- 用于激光标准具中的宽带膜 ..... 杨本祺 金林法 章宏芬 (237)

### 科学札记

- 环形电极同轴氙灯泵浦染料激光器 ..... 吕诚哉 叶衍铭 吴善亮 李郁芬 闻鹤龄 陆建国 沈梓森 (242)
- 连续的电激励水激光器 ..... 李文莱 徐友刚 (244)
- 红外光纤的损耗测试 ..... 滕 琴 (246)
- 用于高功率 YAG 激光手术器的光纤光缆耦合器的设计 ..... 孙保定 杨良民 (248)
- 稳压稳流  $Ar^+$  激光器电源 ..... 陈 健 宗汉强 张少欢 李文冲 (249)
- 氮-氩激光治疗烫伤 80 例 ..... 陈惠琴 何金智 (251)
- He-Ne 激光治疗小儿红臀 30 例 ..... 田素琦 邱惠琴 傅秋华 刘阿平 周凤英 许卫星 (252)
- 发展中的山东激光医学 ..... 田道正 (253)

### 简 讯

- JG-3 型长寿命千瓦级横流  $CO_2$  激光器通过鉴定 ..... 吉 禾 (196)
- 中国光学学会科普委员会第一届第二次全体会议在成都召开 ..... 李 洋 (224)
- 可调谐金绿宝石激光器获巨脉冲输出 ..... 张邦星等 (236)
- 第七届全国激光学术报告会在成都召开 ..... 陈思珍 (254)
- 光盘存贮技术座谈会在上海召开 ..... 赵润乔 (254)
- 高功率  $1.34\mu m Nd:YAP$  连续激光器通过技术鉴定 ..... 沈鸿元 (255)

CONTENTS

INVITED PAPERS

- Review on integrated optics in China over the past decade and prospect for the future...*Yu Rongjin* (193)  
 \* \* \* \* \*
- Influence of inhomogeneity on single transverse mode laser oscillation properties.....*Wang Yumin* (197)  
 Theoretical analysis on the breakdown process of He-Ne laser tubes with low breakdown voltage  
 ..... *Hu Zhiqiang, Shi Yinnan, Qi Xiaoshi, Xiao Jianming* (205)  
 Broad band laser light and comparison of spectrum by broad band and narrow band laser  
 irradiation on targets ..... *Ding Liming, Mei Guang, Tan Weihai, Lin Zhngi* (210)  
 An electro-optically fast tuning ruby laser for water vapor sounding in atmosphere .....  
*Zhao Yanzen, Wu Shaomin, Jin Huishu, Zhang Chunlin, Huang Zhongfang, Huang Qirong* (213)  
 Generation of  $NF(b^1\Sigma^+)$  in the F-F<sub>2</sub>-NH<sub>3</sub> system via a supersonic regime—a potential visible  
 chemical laser medium .....  
*Zhuang Qi, Huang Ruiping, Cui Tiejie, Yuan Qinian, Sang Fengting, Zhang Cunhao* (221)  
 Study on dye mode-locking of repetition pulse lasers .....  
 ..... *Jin Deyun, Huang Guosong, Zhou Fuzheng* (225)  
 Preparation and characteristics of polycrystalline KCl used as infrared laser windows.....  
 ..... *Chuan Ninsan, Cheng Guochuan, Gao Zhaoafa, Jin Jihua* (228)  
 Optimization of discharge circuit elements for copper vapor lasers.....  
 ..... *Huang Zhenguo, Chen Te, Shan Huangyan* (233)  
 Broadband coating in etalon used for laser beams..... *Yang Benqi, Jin Linfa, Zhang Hongfen* (237)

SCIENCE NOTES

- Dye laser pumped by a coaxial flashlamp with annular electrodes..... *Lu Chengzai, et al.* (242)  
 A discharge-excited CW H<sub>2</sub>O laser ..... *Li Wenlai, Xu Yougang* (244)  
 Measurements of spectral loss for infrared fibers ..... *Teng Qin* (246)  
 Design of a fiber-optic cable coupler for high power YAG laser scalpels .....  
 ..... *Sun Baoding, Yang Liangmin* (248)  
 A voltage and current stablized power supply for Ar<sup>+</sup> laesrs ..... *Chen Jian et al.* (249)  
 80 cases of burn treated with He-Ne lasers ..... *Chen Huiqin, He Jinzhi* (251)  
 30 cases of children's red buttock treated with He-Ne lasers..... *Tian Suqi et al.* (252)  
 Status of laser application to medicine in Shandong Province..... *Tian Daosheng* (253)

LETTERS

- Model JG-3 long life time transverse flow CO<sub>2</sub> laser of kW level expertized.....*Je He* (196)  
 The second plenary session of the Popular Science Committee, The Optical Society of China held  
 in Chengdu ..... *Li Yang* (224)  
 Tunable alexandrite laser with giant pulse output ..... *Zhang Bangxing et al.* (236)  
 The Seventh National Symposium on Laser held in Chengdu ..... *Cheng Sizhen* (254)  
 Symposium on Optcial Disc Storage held in Shanghai ..... *ZhaoRenqiao* (254)  
 High power CW 1.34 μm Nd:YAP laser expertized.....*Shen Hongquan* (255)