

目 录

Cs 原子多光子过程的理论计算.....	谭维翰	宋绍金	(749)
金属表面激光热处理的理论计算和实验.....	解伯民 孙同坤 李旭昌	阴仕健	(754)
碳素钢激光淬火组织性能的研究.....	蒲万林 彭爱平	缪辉华	(759)
高重复频率 Nd:YAG 锁模激光器及其热稳腔分析			
.....	何慧娟 陆国贤 李永春 顾圣如	钱林兴 赵隆兴	(765)
Nd:YAG 激光器 AM 锁模稳定性研究	黄国标 董沙雷	关绮玲 温中一	(770)
汞卤化物的放电光谱及其动力学过程.....	俞瑶金 姜爱宝	张基林 韩绍琴	(774)
色心激光材料——掺杂 KCl 单晶的研制			
.....	张荣传 张文珍 邱继展	丁长荣 许承晃	(778)
用扫描电子显微镜研究激光法制备的非晶态金属.....	黄德群 王浩炳	苏宝熔	(782)
高温条件下光声信号的激光外差测量.....	郭转运	张光寅	(785)
使用有源辅助外腔的连续波染料激光的倍频方法.....	卢亚雄	(788)	
DF/HF 化学激光大气衰减的测量			
.....	吴际华 浦达生 陈小华 龚知本	张荣耀 廉继友	刘建镛 (792)
钛金属的激光焊接.....	李清修	易搏藤	万乃斌 (795)
交流液晶光阀用于实时光信息处理.....	钟启明 姜颖秋	车明瑜 计荣才	(798)
非稳定腔脉冲 HF 激光器.....	徐 捷 陈钰明	何国珍 庄 欣	(801)
长寿命氦-镉激光器连续可调氦补充器.....	叶忠华 张向苏	陈聪荣 陈尔绍	(804)
一类新的光学元件的可能性.....	李先枢 杨灼豪	陈小克 周显光	(807)
科学札记			
磷化镓棱镜耦合器的光学特性.....	黄章勇 郑 能	杨德伟	(810)
钕玻璃 1.36 微米激光特性.....	陈泽兴 李仲伢	张军昌	(811)
简 讯			
全国受激光散射座谈会在乐山市召开.....	纪 钟	(812)	

CONTENTS

- Calculation of multiphoton process of Cs atoms..... *Tan Weihan, Luan Shaojin* (749)
 Theoretical calculation and experimental observation of laser hardening of carbon steels
 *Xie Bomin, Sun Tongkun, Li Xuechang, Yin Shijian* (754)
 Study on structure and property of laser hardening of carbon steels
 *Pu Wanlin, Pen Aiping, Miao Huihua* (759)
 A high repetition rate mode-locked Nd:YAG laser and analysis on its thermally stable resonator
 *He Huijuan, Lu Guoxian, Li Yongchun, Gu Shangru, Qian Linxing, Zhao Longxing* (765)
 Research of stability of Nd: YAG AM mode-locked laser
 *Huang Guobiao, Dong Shalei, Guan Yiling, Wen Zhongyi* (770)
 Discharge spectra of mercuric halides and their kinetic processes
 *Yu Yaojin, Jiang Aibao, Zhang Jilin, Han Shaoqin* (774)
 Preparation of doped-KCl single crystals as color center laser material
 *Sun Rongchuan, Zhang Wenzhen, Qiu Jizhan, Ding Changrong, Xu Chenghuang* (778)
 Study of non-crystalline metals by laser irradiation using SEM
 *Huang Dequn, Wang Haobing, Su Baorong* (782)
 Measurement of photoacoustic signal by laser heterodyne at high temperatures
 *Guo Zhuanyun, Zhang Guangyin* (785)
 Frequency doubling of a CW dye laser with an external auxiliary active cavity *Lu Yaxiong* (788)
 Measurement of atmospheric attenuation of DF/HF chemical laser radiation
Wu Jihua, Pu Dasheng, Chen Xiaohua, Gong Zhiben, Zhang Rongyao, Lian Jiyou, Liu Jianyong (792)
 Laser welding of titanium *Li Qingxiu, Yi Boten, Wan Naibin* (795)
 Application of liquid crystal light valve to real-time optical data processing
 *Zhong Qiming, Jiang Yingqiu, Che mingyu, Ji Rongcai* (798)
 A pulsed HF laser with unstable resonator *Xu Jie, Cheng Yuming, He Guozhen, Zhuang Xin* (801)
 Continuously tunable helium replenisher for long lifetime He-Cd laser
 *Ye Zhonghua, Zhang Xiangshu, Chen Congrong, Chen Ershao* (804)
 Possibility of developing a new kind of optical elements
 *Li Xianshu, Yang Zhuohao, ChenXiaoke, Zhou Xianguang* (807)

SCIENCE NOTES

- Optical characteristics of GaP prism couplers *Huang Zhangyong, Zheng Neng, Yang Dewei* (810)
 Properties of Nd-glass laser at 1.36 μm *Chen Zexing, Li Zhongya, Zhang Junchang* (811)

LETTERS

- National symposium stimulated light scattering held in Leshan *Ji Zhong* (812)