

## 目 录

- 高斯光束低阶模焦点能量的相对分布 ..... 程兆谷 王润文 (321)  
自持电激励横流 CO<sub>2</sub> 激光器的最佳输出功率 ..... 楚泽湘 陈丽吟 吴中祥 (328)  
20 W 放电自加热式铜蒸气激光器 ..... 梁宝根 方无忌 张斌元 韩绍琴 尹宪华 崔健力 (334)  
氢闸流管触发的紫外氮分子激光器 ..... 欧震亚 杨立明 宋占侠 (338)  
寻求光泵 FIR 激光器工作物质的一种方法 ..... 许福永 陈孟尧 赵克玉 杜立 (341)  
火焰中 OH 基激光激发的荧光光谱 ..... 王大地 蒋占魁 (348)  
二极管激光微分光谱技术和 CH<sub>3</sub>CN 分子 ν<sub>4</sub> 带的研究 ..... 杨学明 朱清时 沈之烨 张存浩 (351)  
傅里叶变换物镜的波象差测试 ..... 徐德衍 (356)  
高压 H<sub>2</sub> 气受激喇曼移频器的实验研究 ..... 高国昌 李荣平 郭宁宁 高文斌 陈俊德 鲁士平 (359)  
二磷酸钾镨晶体的生长 ..... 洪广言 赵淑英 高建章 (362)  
激光光谱的时间分辨微弱信号测试系统 ..... 叶丽丽 杨石军 鲁士平 陈俊德 高文斌 季汉庭 (365)  
白光全息光学元件——视觉显示反射全息透镜的研究 ..... 徐昆贤 (368)  
激光散斑验光仪及其应用研究 ..... 陈国鉴 汤洪 刘家军 王海金 (373)
- 科学札记
- 可调谐染料激光的窄谱宽输出 ..... 刘晔 杨香春 (376)  
钕玻璃固体激光器棒长于椭圆腔的实验 ..... 王英才 (373)  
乙醇的微微秒受激喇曼散射及其染料放大 ..... 孟绍贤 任江龙 张伟清 康玉英 (379)  
重复率单模近红外 N<sub>2</sub> 激光器和混合注入激光器 ..... 庄斗南 田永赫 (381)  
准连续固体激光电源 ..... 徐仁芳 (383)
- 简讯
- 线聚焦激光与平面型及柱状细丝型靶间的相互作用研究 ..... 徐至展等 (327)  
三层电极氮分子激光器 ..... 马树森等 (384)  
铀的共振三步光电离法通过技术鉴定 ..... 乙民 (333)

## CONTENTS

Relative distribution at focal plane of low-order modes for Gaussian laser beams	Cheng Zhaogu, Wang Runwen	(321)
Optimum output power of a self-sustained discharge transverse flow CO <sub>2</sub> laser	Chu Zexiang, Chen Liyin, Wu Zhongxiang	(328)
Self-heated 20 W discharge copper vapor laser	Liang Baogen, Fang Wuji, Zhang Binyuan, Han Shaoqin, Yin Xianhua, Cui Jianli	(334)
UV nitrogen laser using hydrogen thyratron as switch	Ou Zhenya, Yang Liming, Song Zhanxia	(338)
A method of searching for working materials of optically pumped FIR lasers	Xu Fuyong, Chen Menyao, Zhao Keyu, Du Li	(341)
Laser-excited fluorescence spectra of OH radicals in C <sub>2</sub> H <sub>2</sub> /air flame	Wang Dadi, Jiang Zhanhui	(348)
Diode laser derivative spectroscopic technique and study of CH <sub>3</sub> CN ν <sub>4</sub> band	Yang Xueming, Zhu Qingshi, Shen Zhiye, Zhang Cunhao	(351)
Wavefront deviation measurement of Fourier-transform lenses	Xu Deyan	(356)
Experimental study of stimulated Raman scattering of high pressure H <sub>2</sub> frequency shifter	Gao Guochang, Li Rongping, Guo Ningning, Gao Wenbin, Chen Junde, Lu Shiping	(359)
Growth of K <sub>3</sub> Pr(PO <sub>4</sub> ) <sub>2</sub> crystals	Hong Guangyan, Yue Shuying, Gao Jianzhang	(362)
Detection system for time resolved weak signals in laser spectroscopy	Ye Lili, Yang Shijun, Lu Shiping, Chen Junde, Gao Wenbing, Ji Hanting	(365)
Investigation of white light HOE—reflection holographic lens for visual display applications	Xu Kunxian	(368)
Laser speckle refractometer and its application in ophtalmology	Chen Guojian et al.	(373)

**SCIENCE NOTES**

A tunable laser with narrow linewidth output	Liu Ye, Yang Xiangchun	(376)
Experiment on Nd: glass laser rods longer than their ellipsoidal pump cavities	Wang Yingcai	(373)
Picosecond stimulated Raman scattering of ethanol and its amplification by dye	Meng Shaonian, Ren Jianglong, Zhang Weiqing, Kang Yuying	(379)
A pulse repetitive single mode near IR N <sub>2</sub> laser and hybrid injection laser	Zhuang Dounan, Tian Yonghe	(381)
A power supply for quasi-CW solid state lasers	Xu Renfang	(383)

**LETTERS**

Interaction of linearly-focused laser light with planar and cylindrical targets	Xu Zhizhan et al.	(327)
Molecular N <sub>2</sub> laser with three layered electrodes	Ma Shusheng et al.	(384)
Uranium separation by three step photoionization expertised	Yi Min	(333)