

## 目 录

傅里叶全息衍射干涉仪的原理 .....	刘立人	(641)
差频 Ronchi 光栅的频谱特性与在图象处理中的应用 .....	周进 高文琦	(648)
铜蒸气激光辐照棘孢小单孢菌的研究 .....	吴振倡 余红	
应伟均 杜珠还 陈学旺 石宝驹 孙威 姚志欣 汪永江	(654)	
利用共振光压偏转原子束的方法测量原子束速度的分布 .....	王育竹 程与旦 周善钰 黄维刚 刘亮	(658)
血卟啉衍生物分子的激光喇曼光谱 .....	刘颂豪 李唤玲 陈建华 徐文洁 邓玉妹 张伟 张晶如 惠令凯	(661)
长腔半导体激光器中的纵模行为 .....	沈峰 解金山 郭长志	(664)
外腔中半导体激光器的双频振荡 .....	陈建国	(668)
小型长寿命 XeCl 准分子激光器 .....	刘达伟	(672)
脉冲激光输出的电光稳定性 .....	胡企铨 舒海珍 殷立峰 袁国雄	(675)
大气沙尘对 $10.6 \mu\text{m}$ $\text{CO}_2$ 激光束的衰减特性 .....	全学成	(678)
真空空间滤波器的窗口畸变 .....	王桂英 张明科 钟振平	(683)

### 科学札记

激光波长计 .....	刘忠有 赵志喜 马明德 刘秀英	(688)
非稳腔 Nd:YAG 被动锁模激光器 .....	朱鑫铭 聂少峰	(691)
饱和吸收选模的可调谐单模 612 毫微米 He-Ne 激光器 .....	邬成就	(692)
在泵浦弄空情况下的喇曼效应 .....	孟绍贤等	(694)
脉冲阈值法测注入式激光器的载流子寿命 .....	赵鲁光	(695)
用连续波激光引发合成环-六次甲基四胺 .....	陈民生 王风云 王大雁	(697)
应用单张全息干涉图测定三维微小位移的一种快速算法 .....	王仕璠	(699)
关于平面全息图反射波再现像的亮度 .....	于乃旬	(701)

### 简讯

100 Hz 紧凑型 TEA $\text{N}_2$ 激光器 .....	董景星等	(647)
全自动锁模 Nd:YAG 激光器研制成功并投入运转 .....	唐贵琛等	(703)

## CONTENTS

- Fourier-transform holographic diffraction interferometry: principle ..... *Liu Liren* (641)  
 The spectral characteristics of a double frequency Ronchi grating and the application in image  
 precessing ..... *Zhou Jin, Gao Wengi* (648)  
 Study on irradiation of micromonospora schinospora with copper vapor laser light.....  
 ..... *Wu Zhenchang et al.* (654)  
 Velocity distribution measurement of atomic beams by means of atomic beam deflection under  
 resonance light pressure .....  
 ..... *Wang Yushu, Cheng Yudan, Zhou Shanyu, Huang Weigang, Liu Liang* (658)  
 Laser Raman spectra of hemotoporphyrin derivative molecules ..... *Liu Songhao et al.* (661)  
 Longitudinal-mode behavior of stripe-geometry semiconductor lasers with a very long cavity  
 ..... *Shen Feng, Xie Jingshan, Guo Changzhi* (664)  
 Dual-wavelength oscillation of semiconductor lasers in external cavities ..... *Chen Jianguo* (668)  
 A compact long lifetime XeCl excimer laser ..... *Liu Dawei* (672)  
 An electro-optical stabilizer for pulsed laser output ..... *Hu Qiquan, et al.* (675)  
 Attenuation characteristics of 10.6 $\mu$ m laser light through dust-storm ..... *Quan Xuecheng* (678)  
 Distortion of windows of vacuum spatial filters ..... *Wang Guiying et al.* (683)
- SCIENCE NOTES**
- A wavemeter for lasers ..... *Liu Zhongyou, Zhao Zhixi, Ma Mingde, Liu Xiuying* (688)  
 A passively mode-locked Nd:YAG laser with unstable resonator .....  
 ..... *Zhu Xinming, Nie Shaofeng* (691)  
 A tunable single-mode He-Ne laser selected by saturated absorption in iodine at 612 nm.....  
 ..... *Wu Chengjiu* (692)  
 Stimulated Raman scattering with pump depletion ..... *Meng Shaonian et al.* (694)  
 Measurement of carrier lifetime of injunction lasers with pulse threshold method  
 ..... *Zhao Lugurng* (695)  
 Synthesis of hexamethylene tetramine by CW-CO<sub>2</sub> laser induced reaction.....  
 ..... *Chen Minsheng, Wang Fengyun, Wang Dayan* (697)  
 A fast algorithm for holographic interferometric determination of 3D minute displacements  
 ..... *Wang Shifan* (699)  
 On brightness of reconstructed images of reflected wave for a plane hologram..... *Yu Naixun* (701)
- LETTERS**
- Compact 100 Hz TEA N<sub>2</sub> laser ..... *Dong Jingxing et al.* (647)  
 Actively mode-locked Nd:YAO laser developed and put into operation ..... *Tang Guichen et al.* (703)