

## 目 录

统一表述谐振腔共振条件的一个公式 .....	邓锡铭 陈泽尊	(65)
面沟道粒子的正弦平方势及其带电粒子的库马霍夫辐射 .....	罗诗裕 邵明珠	(69)
玻璃光纤中的瞬态受激喇曼散射 .....	干福熹 金德运 黄国松 陈世正	(75)
用相位光栅实现多重成象 .....	王玉堂 樊晓泉	(78)
外色散腔半导体激光器选模和调谐性能的多模速率方程分析 .....	徐承材 许知止 周炳琨	(83)
LiF 晶体中 F <sub>2</sub> 心密度与激光稳定性的研究 .....	李胜华 蒋秀明 黄木贞 范福昌 陈义金	(89)
氮激光泵浦的双色染料激光器 .....	王效敬 金天峰 王京运	(93)
共振耦合双波受激喇曼散射的实验研究 .....	赫光生 程与旦 周福新 余曷鯤 王福贵 刘 敏 刘颂豪	(96)
漫射透明体内部折射率分布的全息干涉测量 .....	李锡善 夏青生 蒋安民	(100)
气体激光器的低频差拍噪声 .....	巴恩旭 吕可诚 张春平	(105)
可调谐外差式激光偏频锁定 .....	廖世强 卞淑姮 赵家铭 王玉珠	(110)
倍频激光薄膜——1.06 微米与 0.53 微米双波长增透膜 .....	李庆国	(114)

### 科学札记

可调谐 CO <sub>2</sub> 双波长激光器研究 .....	邹海兴 陈兰英 张宝富 汪 浩 刘亚钢	(118)
带有 TP 801 微型计算机的激光偏振度测量装置 .....	陈文周 林文青 李金贤	(120)
YAG 激光对女性生殖器官损伤范围的实验观察 .....	丁爱华 孙时芬 瞿淦贞 张惜阴 杨福寿 陈凤歧	(121)
低功率 He-Ne 激光光针的临床应用 .....	张育勤 常秀兰	(123)
氩-氟激光活体透射实验初步分析 .....	田道正 杨 林	(125)

### 简 讯

第二届全国激光新晶体材料学术会议在泉州召开 .....	吉 禾	(82)
连续运转的 Pb <sub>1-x</sub> Sn <sub>x</sub> Te 半导体可调谐激光器研制成功 .....		(104)
DJZ-1 型深井激光指向仪通过鉴定 .....	李剑锋	(117)
氩-氟激光 640、630 毫微米谱线波长的测定 .....	刘忠有 赵志喜 刘秀英	(126)
锁模序列脉冲泵浦光参量放大器 .....	崔益本 祁红星 李公普	(126)
CO <sub>2</sub> 激光治疗跟骨骨刺引起的足跟疼 .....	庄世璋 林 捷	(127)
扁桃腺切除术后残体的激光无血手术治疗 .....	莫宋平 李瑞霞	(127)
我国激光文献分布规律 .....	王心维	(127)
全国常用气体激光器产品质量评比总结发奖大会在北京举行 .....	张允宏 赵润乔	(128)

## CONTENTS

- A unified expression for oscillation frequency of optical resonance cavities ..... *Deng Ximing, Chen Zejun* (65)
- Sine-squared potential for planar channeling particles and Kumakhov radiation for charged particles ..... *Luo Shiyu, Shao Mingzhu* (69)
- Transient stimulated Raman scattering in glass fiber ..... *Gan Fuxi, Jin Deyun, Huang Guosong, Chen Shizheng* (75)
- Multiple imaging by phase grating ..... *Wang Yutang, Fan Xiaoquan* (78)
- Multimode rate-equation solution of mode selection and tuning properties of semiconductor laser with an external dispersive cavity ..... *Xu Chengcai, Xu Zhizhi, Zhou Bingkun* (83)
- Study on relationship between density of  $F_2$ -centers in LiF crystals and their laser stability ..... *Li Shenhua, Jiang Xiuming, Huang Muzheng, Fan Fuchang, Chen Yijing* (89)
- A nitrogen laser pumped double wavelength dye laser ..... *Wang Xiaojing, Jing Tianfen, Wang Jingyun* (93)
- Experimental study on resonance-coupled two-wave stimulated Raman scattering ..... *He Guangsheng, Cheng Yudan, Zhou Fuxin, Yu Bingkun, Wang Fugui, Liu Min, Liu Songhao* (96)
- Holographic interference measurement of refractive index distribution in diffusion transparencies ..... *Li Xishan, Xia Qingsheng, Jiang Anmin* (100)
- Low-frequency beat noise for gas lasers ..... *Ba Enxu, Lu Kecheng, Zhang Chungping* (105)
- Heterodyne bias frequency-locking of tunable lasers ..... *Liao Shiqiang, Bian Shuheng, Zhao Jiaming, Wang Yuzhu* (110)
- Laser thin films for frequency doubling—two-wavelength antireflection coating at  $1.06 \mu\text{m}$  and  $0.53 \mu\text{m}$  ..... *Li Qingguo* (114)

## SCIENCE NOTES

- Study of tunable and double wavelength  $\text{CO}_2$  lasers ..... *Zou Haixin, Cheng Lanyin, Zhang Baofu, Wang Hao, Liu Yagang* (118)
- An apparatus for laser polarization degree measurement using TP801 microcomputer ..... *Chen Wenzhou, Lin Wengqing, Li Jingxian* (120)
- Experimental observation on the injury of female genital organ by YAG laser ..... *Ding Aihua, Sun Shifeng, Qu Ganzhen, Zhang Xiyin, Yang Fushou, Chen Fengqi* (121)
- Clinical application of low-power laser needles ..... *Zhang Yuqing, Chang Xiulan* (123)
- Preliminary analysis of the penetration test on the living body with a low power He-Ne laser ..... *Tian Daozheng, Yang Lin* (125)

## LETTERS

- The Second National Symposium on new laser crystals held in Quanzhou ..... *Ji He* (82)
- CW tunable  $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$  semiconductor laser developed ..... (104)
- Technical appraisal of DJZ-1 deepwell laser director passed ..... *Li Jianfeng* (117)
- Measurement of He-Ne laser wavelengths at 640 nm and 630 nm ..... *Liu Zhongyou et al.* (126)
- Mode-locked pulse train pumped parametric amplifier ..... *Cui Yiben, Qi Hongqing, Li Gongpu* (126)
- 23 cases of heel pain caused by calcaneal spurs treated with  $\text{CO}_2$  laser ..... *Zhuang Shizhang, Lin Jie* (127)
- Bloodless treatment of residuals after the removal of tonsil by laser surgical operation ..... *Mo Songping, Li Ruixia* (127)
- Distribution rule of laser literature in China ..... *Wang Xinwei* (127)
- National conference on quality appraisal of common gas lasers products and prize-giving held in Beijing ..... *Zhang Ycenhong, Zhao Rungqiao* (128)