

目 录

激光器件

- 储存环自由电子激光器的高次谐波运转特性研究..... 傅恩生 王之江 (257)
- 带有大曲率半径反射镜的六镜环形腔稳定性的研究..... 赵新苗等 (260)
- 半导体激光器输出光功率的最佳值..... 王德煌 徐万劲 (264)
- 连续锁模 Ar⁺ 激光器的噪声特性..... 吕福云 袁树忠 吕克诚 关信安 (268)
- 双频染料激光器的相关调谐原理..... 张国威 (272)
- 新型的激光 Doppler 测振装置..... 孙渝生 靳永东 (276)
- 钾分子的二步泵浦光离解受激辐射..... 张开昌 秦莉娟 王祖康 郑一善 (279)
- 外腔半导体激光器单频输出的长期稳定..... 张汉一等 (300)

实验技术与元件

- 利用砷化镓表面的二次谐波测量 ps 激光的脉宽..... 马海明 刘一先 李富铭 (283)
- 激光动态精密测微研究..... 吴世雄等 (286)
- 偏振光谱法观察 Na₂A¹Σ_u⁺ ~ b³Π_u 微扰能级的超精细结构..... 王荫德 王崇业 李明光 李 丽 (302)
- 旋转孔径散斑照相法测量动态热形变..... 顾 杰 沈永昭 王开福 蔡振岩 (305)
- 激光沉积硅膜的生成和微结构..... 杨静然 (306)
- 用平行平板大错位干涉法测量温度场分布..... 苗润才 彭景红 邝宜贤 (309)
- CO₂ 激光腔内声光调制的研究..... 陈光明 代 伐 曾广荣 (311)

激光物理与激光化学

- 压缩态光场的迭加..... 郭光灿 黄培周 姚 丹 (289)
- 非线性光波中的空间双稳态特性..... 曹雪龙 黄肇明 周幼威 蔡英时 (313)
- 双轴晶体 KTiOPO₄ 的多频率变换..... 孙德才 姚建铨 (315)

全息技术与信息处理

- 图像信息压缩的光学处理方法——ODPCM 算法研究..... 林 宁 吴长发 叶嘉雄 (295)

简讯

- 光敏治疗鼻咽癌..... 孙振权 罗国仪 (317)
- 光敏治疗阴茎癌..... 张 鑫 吴思思 (318)
- He-Ne 激光配合针刺治愈周围性面神经麻痹..... 傅宝阳 (319)
- He-Ne 激光穴位照射治疗小儿遗尿症..... 张育勤 (320)
- 激光处理黄瓜种子增产效应的研究..... 史跃林 (320)

CONTENTS

• LASER DEVICES •

- Properties of higher harmonic operation in storage ring FELs.....*Fu Ensheng, Wang Zhijiang* (257)
- Theoretical analysis and experimental study of stability of a six mirror ring cavity with large radius of curvature *Zhao Xinmiao et al.* (260)
- Optimum value of optical output power for semiconductor lasers..... *Wang Dehuang, Xu Wanjin* (264)
- Characterization of noise in a CW mode-locked argon ion laser*Lu Fuyun, et al.* (268)
- A correlated tuning theory of double-frequency dye lasers..... *Zhang Guowei* (272)
- A novel laser Doppler vibrometer *Sun Yusheng, Jin Yundong* (276)
- Stimulated emission generated by two-step pumping photodissociation of K_2
.....*Zhang Kaichang, Qin Lijuan, Wang Zugeng, Zheng Yishan* (279)
- Long-term stabilization of single longitudinal mode for external cavity semiconductor lasers
..... *Zhang Hanyi et al.* (300)

• EXPERIMENTAL TECHNIQUES AND ELEMENTS •

- Measurement of picosecond laser pulse widths with second harmonic waves generated from GaAs surfaces.....*Ma Haiming, Liu Yixian, Li Fuming* (283)
- Investigation on laser dynamic precision measurement of fine wire diameters...*Wu Shixiong et al.* (286)
- Observation of HFS of $Na_2 A^1\Sigma_u^+ \sim b^3\Pi_u$ perturbation levels by polarization spectroscopy
..... *Wang Yinde, Wang Chongye, Li Mingguang, Li Li* (302)
- Rotating aperture method of speckle photography for analysing deformation of a dynamic heating object.....*Gu Jie, Shen Yongzhao, Wang Kaifu, Cai Zhenyan* (305)
- Formation and microstructure of silicon film deposited by laser light *Yang Jingran* (306)
- Temperature measurement by parallel large shearing interferometry.....*Miao Rencai et al.* (309)
- Intracavity acousto-optic modulation for CO_2 laser light *Cheng Guangming et al.* (311)

• LASER PHYSICS AND LASER CHEMISTRY •

- Superposition of squeezed states of light..... *Guo Guangcan, Huang Peizhou, Yao Dan* (289)
- Spatial bistability in nonlinear optical waveguides..... *Cao Xuelong, et al.* (313)
- Multi-frequency conversion by means of biaxial crystal $KTiOPO_4$ *Sun Decai, Yao Jianquan* (315)

• HOLOGRAPHY AND INFORMATION PROCESSING •

- Optical processing methods of image information compression—A research of ODPCM method
.....*Lin Ning, Wu Changfa, Ye Jiaxiang* (295)

• LETTERS •

- Nasopharyngeal carcinoma treated with PDT..... *Sun Zhenquan, Lu Guoyi* (317)
- Penis cancer treated by PDT*Zhang Xin, Wu Sien* (318)
- Curing peripheral facial paralysis by He-Ne laser light..... *Fu Baoyang* (319)
- Brief clinical summary of acupoint irradiation of infant enuresis with He-Ne laser...*Zhang Yuqin* (320)
- A study of the yield increasing effect of laser treatment on cucumber seeds.....*Shi Yuelin* (320)