

目 录

激光器件

- 可见光化学激光研究——II. 采用 F-NH₃-IF 化学反应体系实现 IF 化学激光的模型 庄琦 王成栋 冯浩 张存浩 (1)
- Ti³⁺:Al₂O₃ 激光特性的研究 吴路生 陈一耘 赵梅荣 殷绍唐 汤洪高 (3)
- 大孔径稳腔连续注入式 TEA CO₂ 激光器 叶东来 李殿军 林太基 (7)
- DH-GaAlAs 激光器的非对称脉冲振荡研究 詹玉书 许宝西 许长存 过巴吉 方芳 (11)
- 采用纵模匹配技术的短脉冲注入锁定染料激光器 张铁军 许凤鸣 (46)
- 正支共焦非稳定腔输出光束能量分布的实验研究 颜惠芝 (49)
- 脉冲强预燃及其对激光光泵效率的影响 姜闯清 张沛贞 林文正 (53)
- 掺钕磷酸盐玻璃激光器灯、棒与聚光腔体的最佳耦合 张梅珍 张军昌 吴福顺 周宏正 (55)

激光物理与激光化学

- 喇曼脉冲在钡蒸气中传播的理论分析和数值计算 莫春松 王润文 楼祺洪 霍芸生 (16)
- 紫外激光泵浦的乙醇液滴中的受激喇曼振荡 王军 董耕发 钱士雄 李郁芬 (20)
- Na 蒸气中双支受激超喇曼散射的观察 王骥 王雨三 王月珠 翰晓峰 马祖光 (25)
- 硅晶体中的二波混合与相干放大 杨向明 (29)
- BSO 晶体空间电光、光电等特性的实验研究 董孝义 盛秋琴 张建忠 (32)

全息技术与信息处理

- 锁相激光列阵的自成像补偿法孔径装填 刘立人 赵丽英 (37)

激光应用

- 激光对 Si 单晶热敏电阻作用的实验研究 赵继然 江敏华 查贵根 王润文 韦凤辉 庄顺昌 (41)
- 激光诱导铝热反应在多晶硅上制备 Ni 和 NiSi₂ 薄膜 李丁 周政卓 曾永健 龚煥明 邱明新 林成鲁 (59)
- 激光化学气相沉积铁薄膜 李士新 丁泽安 楼祺洪 (62)

简讯

- 中国激光医学研讨会在武汉举行 吉禾 (58)
- 激光针治疗小儿肠炎的临床应用 梁勋 刘淑云 邢军 刘义 (64)

CONTENTS

•LASER DEVICES•

- Studies of visible chemical lasers—II, Modelling of an IF chemical laser within F-NH₃-IF system Zhuang Qi, Wang Chengdong, Feng Hao, Zhang Cunhao (1)
- Investigation of characteristics on Ti³⁺:Al₂O₃ lasers Wu Lusheng, Chen Yihong, Zhao Meirong, Yin Shaotang, Tang Honggao (3)
- Large aperture CW injected TEA CO₂ laser with a stable cavity Ye Donglai, Li Dianjun, Lin Taiji (7)
- Study of asymmetrical pulse oscillation in AlGaAs DH lasers Zhan Yüshu et al. (11)
- Injection-locked short pulse dye laser with longitudinal mode matching Zhang Tiejun, Xu Fengming (46)
- Experimental investigation on energy distribution of output beam of a positive-branch confocal and unstable resonator Yan Huizhi (49)
- Strong pulsed preheating technique used in repetitive pulsed solid state lasers Jiang Yueqing, Zhang Peizheng, Lin Wenzheng (53)
- Optimum coupling among flashlamp-rod-cavity in phosphate Nd:glass lasers Zhang Meizhen, Zhang Junchang, Wu Fushun, Zhou Hongzhen (55)

•LASER PHYSICS AND LASER CHEMISTRY•

- Theoretical analysis and numerical calculation of Raman pulse propagating in barium vapour Mo Chunsheng, Wang Runwen, Lou Qihong, Huo Yunsheng (16)
- Stimulated Raman oscillation from ethanol droplets pumped by ultraviolet laser pulses Wang Jun, Dong Genfa, Qian Shixiong, Li Yufen (20)
- Dual-branch stimulated hyper-Raman scattering in sodium vapor Wang Qi, Wang Yüsan, Wang Yuezhu, Han Xiaofeng, Ma Zuguang (25)
- Two wave mixing and coherent amplification in Si crystals Yang Xiangming (29)
- Experimental research on spatial E-O effect and photoconductive effect in BSO crystals Dong Xiaoyi, Sheng Qiuqin, Zhang Jianzong (32)

•HOLOGRAPHY AND INFORMATION PROCESSING•

- Aperture filling of phase-locked laser arrays by phase correction of self-imaging Liu Liren, Zhao Liying (37)

•LASER APPLICATIONS•

- Experimental study on interaction between laser light and uniaxial silicon thermistors Zhao Jiran et al. (41)
- Preparation of Ni and NiSi₂ films on polysilicon by laser-induced aluminothermic reaction Li Ding et al. (59)
- Laser chemical vapour deposition of Fe thin film Li Sixing, Ding Ze'an, Lou Qihong (62)

•LETTERS•

- Symposium on Development of Laser Medicine in China held in Wuhan Jihe (58)
- Clinical application of laser acupuncture to children's enteritis Liang Xue et al. (64)