

## 目 录

创刊十周年  
特约文章

我国激光分离同位素的研究进展 ..... 匡一中 (65)

\*\*\* \*\*\* \*\*\* \*\*\*

包含光阑的激光谐振腔模式 ..... 范滇元 王照明 朱爱兵 高脐媛 (70)

铜离子激光器的放电理论模型 ..... 余建华 龚志伟 丘军林 (77)

无 He 高速流动 CO<sub>2</sub> 激光器的研究 ..... 查鸿达 沈俊泉 程瑞华 杨镜渭 丁克明 奚文龙 (82)

腔镜应力对激光偏振特性的影响 ..... 张春平 张光寅 (87)

应用 ESR 谱研究香豆素-乙醇介质的光解机理 ..... 吴正亮 舒菊坪 傅文标 (91)

铷蒸气及其杂质铯的光泵受激辐射 ..... 秦莉娟 王祖赓 林远齐 马龙生 (95)

染料超荧光的 ps 研究 ..... 孟绍贤 张伟清 康玉英 (99)

透射全息图的反射象成因分析 ..... 单子娟 王定兴 李正直 (102)

均匀磁场对自由电子激光器增益特性的影响及工作条件的研究 ..... 赵东焕 陈建文 雷仕湛 (104)

激光照射癌细胞 RNA 对移植肿瘤影响的初步实验报告 ..... 刘德民 杨绪霞 张翠珍 梁梅英 曹鹏飞 陈兆平 周忆萍 杨福寿 (107)

激光眼损伤安全防护问题的研究 ..... 关崇文 王容珍 金沪梅 (113)

科学札记

高频激励波导 CO<sub>2</sub> 激光器 ..... 齐桂云 于世彭 曹余黎 虞钢 韩涌 (118)

激光对 CO<sub>2</sub> 激光器中电子能量分布的影响 ..... 董景星 王玉芝 谢培良 (119)

H<sub>2</sub> 对 X 光预电离长脉冲 XeCl 准分子激光的影响 ..... 楼祺洪 (121)

利用光电流光谱法观察 CO 激光跃迁的相互作用 ..... 张顺怡 归振兴 王裕民 (122)

相斥减噪原理及抑制噪声的效果 ..... 殷一贤 曾祥广 胡实华 倪世泽 沈铁流 韩璞 (124)

激光振荡模的假彩色显示 ..... 门绍雄 吕可诚 (125)

离子镀金膜的研制 ..... 卢玉村 朱钧忠 (126)

大口径激光能量计的电校准精度 ..... 王瑞华 (127)

简讯

用于重复率锁模振荡器的全电型选脉冲开关 ..... 蔡燕萍 (117)

## CONTENTS

## INVITED PAPERS

Research progress of laser isotope separation in China .....	Kuang Yizhong	(65)
***            ***            ***            ***            ***		
Eigenmodes of resonator containing apertures .....	Fan Dianyuan, Wang Zhaoming, Zhu Aibing, Gao Qiyuan	(70)
A theoretical discharge model of SHCD copper ion lasers.....	Yu Jianhua, Gong Zhiwei, Qiu Junlin	(77)
Investigation on fast-flow He-free CO <sub>2</sub> laser .....	Cha Hongkui, Shen Junquan, Cheng Ruihua, Yang Jingwei, DingKeming, Xi Wenlong	(82)
Effects of stress mirror cavity on polarization characteristics of lasers .....	Zhang Chunping, Zhang Guangying	(87)
Investigation on photodegradation mechanism in coumarin laser dyes by ESR technique.....	Wu Zhengliang, Shu Juping, Fu Wenbiao	(91)
Optically pumped stimulated radiation in rubidium vapor with impurity cesium .....	Qing Lijuan, Wang Zugeng, Lin Yuanqi, Ma Longsheng	(95)
Investigation of amplified spontaneous emission in dye solutions with picosecond light pulses.....	Meng Shaonian, Zhang Weiqing, Kang Yuying	(99)
Reflection behaviour of transmission holograms .....	Shan Zijuan, Wang Dingxing, Li Zhenzhi	(102)
Effect of uniform magnetic field on the gain of free-electron laser and study of its operation condition.....	Zhao Donghuan, Chen Jianwen, Lei Shizhan	(104)
Preliminary experimental report: the influence of laser irradiated cancer cell RNA on animal transplanted tumors .....	Liu Demin, Yang Xuxia	
Zhang Cuizhen, Liang Meiyi, Cao Penfei, Chen Zhaoping, Zhou Yiping, Yang Fushou	(107)	
Study on the protection of eyes against laser damage.....	Guan Chongwen, Wang Rongzhen, Jin Humei	(113)

## SCIENCE NOTES

A RF excited CO <sub>2</sub> waveguide laser.....	Qi Guiyun, Yu Shipeng, Cao Yuli, Yu Gang, Han Yong	(118)
Influence of lasing on electron energy distribution in CO <sub>2</sub> lasers.....	Dong Jingxing, Wang Yuzhi, Xie Peiliang	(119)
Effect of H <sub>2</sub> on X-ray preionized long pulse XeCl excimer lasers .....	Lou Qihong	(121)
Observation on correlation of CO laser transitions by optogalvanic spectroscopy .....	Zhang Shunyi, Gui Zhengxing, Wang Yumin	(122)
Principle of mutual exclusion and suppression of laser noise .....	Yin Yixian, Zhen Xiangguang, Hu Shihua, Ni Shize, Shen Tieliu, Han Pu	(124)
Pseudo-color display of laser modes .....	Men Shaoxiong, Lu Kecheng	(125)
Study and preparation of ion plated gold film .....	Lu Yucun, Zhu Junzhong	(126)
Calibration accuracy of large aperture laser calorimeter .....	Wang Reihua	(127)

## LETTERS

An all-electronic single pulse selector for mode-locked laser with high repetition frequency .....	Mang Yanping	(117)
--	--------------	-------