

目 录

激光器件

回旋共振微波激射器布喇格谐振腔的设计

- 王明常 V. L. 哥莱内斯坦 A. W. 弗里弗来特 R. 马可温 (193)
从二极管激光器获得最短光脉冲的最佳泵浦条件 单振国 (197)
渡越辐射箇组系统中电磁波的受激放大和X射线激光器的展望 严祖祺 阮可妃 (203)
短脉冲注入锁定染料激光器的理论 张铁军 (208)
飞秒染料激光器中啁啾和色散特性的实验研究 王清月 赵俊兴 向望华 (236)

实验技术与元件

- 半导体激光器线性调频干涉仪的多路复用 徐左 谢巍 田芊 李达成 (214)
沿圆周路径测量散斑摄影杨氏条纹 胡逸群 (218)
旋转孔径时间平均散斑照相法 顾杰 沈永昭 (238)
正交相位跃变光栅的光学特性 单子娟 李正直 王定兴 (241)

非线性光学与激光光谱

- 原子在压缩光场中的拉比振荡 张卫平 谭维翰 (221)
氟磷酸盐玻璃中 Tb^{3+} 的光谱及室温产生可见激光的可能性 邱长鸿 干福熹 (227)
光致折射晶体 Ce-SBN 的双光束耦合、放大的特性 徐怀方 金元望 杭永珍 (243)
基于不等频二步激发 Ca 蒸气产生的受激和串级受激辐射 金海燕 陈郁 李永放 王祖廉 (245)
镜空心阴极放电灯中的单步和双步光电流效应的研究 沈俊峰 刘怡周 黄正东 (248)

激光生物学与激光医学

- 犬钢珠伤和正常肌肉光学性质的比较 唐建民 傅昌余 邱美珍 傅小兵 刘荫秋 (233)
综合治疗尖锐湿疣409例的体会 房薇 李淑珍 张颜成 张红 管淑芹 王月林 孙风兰 (250)
激光加中药治疗浆液性黄斑囊样水肿 王魁仲 周琼 皮敏石 龚美容 (252)
He-Ne 激光对小白鼠周围神经再生影响的实验研究 陈德松 胡宗谋 袁伟 顾玉东 王德昭 (254)

简讯

- 有机高分子添加物增大染料激光输出 楼立人 高成岳 李银妹 江月生 (256)

CHINESE JOURNAL OF LASERS

Vol. 16 No. 4

(Series No. 148)

(Established: September, 1974, Monthly)

April 20, 1989

CONTENTS

•LASER DEVICES•

Design of Bragg cavity for CARMs

..... *Wang Mingchang, V. L. Granatstein, A. W. Fliflet, R. McCowan* (193)

Optimum pump condition for obtaining shortest light pulses from laser diodes *Shan Zhenguo* (197)

Stimulated amplification of electromagnetic wave in foil stack systems for transition radiation

and the prospect of X-ray lasers *Yan Zuqi, Ruan Kefei* (203)

Theory of injection-locked short pulsed dye lasers *Zhang Tiejun* (208)

Experimental investigation on chirping and dispersion characteristics of fs pulsed dye laser

..... *Wang Qingyue, Zhao Xingjun, Xiang Wanghua* (236)

•EXPERIMENTAL TECHNIQUES AND ELEMENTS•

Study on multiplexing of interferometers with frequency modulated laser diode

..... *Xu Zuo, Xie Wei, Tian Qian, Li Dacheng* (214)

Measurement of Young's fringe in speckle photography along circular loci *Fu Yiqun* (218)

Rotating aperture time-averaged speckle photography *Gu Jie, Sheng Yongzhao* (238)

Optical characteristics of a cross-grating bearing 180°-shifting phase

..... *Shan Zijuan, Li Zhengzhi, Wang Dinxing* (241)

•NONLINEAR OPTICS AND LASER SPECTROSCOPY•

Rabi oscillation of atoms in squeezed light field *Zhang Weiping, Tan Weihan* (221)

Spectroscopic properties of Tb³⁺ ions in fluorophosphate glass and possibility of obtaining visible laser light at room temperature *Qi Changzhong, Gan Fuxi* (227)

Characteristics of two beam coupling and amplification in photorefractive crystal Ce-doped SBN

..... *Xu Huaifang, Jin Yuanwang, Hang Yongzhen* (243)

Stimulated and cascade stimulated radiation based on unequal frequency two-step excitation in Ca vapor *Jin Haiyan, Chen Yu, Li Yongfang, Wang Zugeng* (245)

Study of one-step and two-step optogalvanic effect in Yb hollow cathode discharge lamps

..... *Shen Junfeng, Liu Yizhou, Huang Zhengdong* (248)

•LASER BIOLOGY AND LASER MEDICINE•

Comparisons of optical properties in steel ball wounded canine muscle and normal canine muscle

..... *Tang Jianmin, Fu Changyu, Qiu Meizhen, Fu Xiaobing, Liu Yingqiu* (233)

Comprehensive treatment of 409 cases of sharp condylomata *Fang Wei et al.* (250)

Treatment of serious cystoid macular edema with laser light and traditional Chinese drug

..... *Wang Kuizhong, Zhou Qiong, Pi Minxi, Gong Meirong* (252)

Experimental study on regeneration effect of peripheral nerve of white rats irradiated by He-Ne laser light *Chen Desong et al.* (254)

•LETTERS•

Enhancement of dye laser output by organic high molecular additive

..... *Lou Liren, Gao Chengyue, Li Yingmei, Wang Yuesheng* (256)