

目 录

- 双光子激光连续振荡过程的讨论.....孙松庚 (1)
- 用三级相关函数法测量 ps 光脉冲的形状和宽度.....刘一先 林 军 黎晓良 李富铭 (5)
- 放电等离子体振荡下的光电流光谱特性
.....归振兴 王裕民 张顺怡 沈桂荣 方学信 王润文 (8)
- 激光等离子体低能 X 光辐射的研究与探测.....欧阳斌 余加进 陆海鹤 李弘毅 (13)
- 精确测量谱线位移的 CARS 装置及气-液相变中的谱线位移
.....王庆宇 董耕发 金耀根 钱士雄 李郁芬 (16)
- 三维全息屏幕象差特性的研究.....徐昆贤 (20)
- 电子全息术中的两次曝光法.....陈建文 傅淑芬 张大可 倪瑞莲 王之江 曹涵清 (24)
- 自由电子激光器中轴向磁场作用的实验研究.....褚 成等 (27)
- 环行染料激光器内腔倍频——窄带可调谐紫外辐射的产生.....林 海等 (31)
- 自聚焦材料周期长度的分布散射法测量.....程希望 张春香 (34)
- 全主动锁模激光器——预激光锁模激光器
.....唐贵琛 裘佩霞 林伟平 陈有明 郑向东 (37)
- 小型 NdP₅O₁₄ 脉冲激光器.....刘继尚 王明凯 赵锡君 梁艳春 王保林 陆宝生 (41)
- 铜蒸气激光器振荡-放大系统的实验研究(一).....梁培辉 任 虹 王志英 沃敏政 (45)
- 高效率横向电激励连续 CO₂ 激光器的研究.....刘东华 韩晏生 李 锋 李再光 (49)
- 几种钢材表面激光涂复与合金化的实验研究.....苏宝熔等 (52)

科学札记

- 自动预电离的 XeCl 准分子激光器.....李昭临等 (57)
- 12 μm 带光泵 NH₃ 调频激光器.....李育德 匡一中 苟洪涛 (59)
- He-Ne 激光噪声的测量.....刘志国 巴恩旭 吕可诚 王立军 刘立新 (61)
- 磁调制氦-氖激光器的研究.....程祖珍 王曙光 (62)

简 讯

- 第二届全国量子光学、光学双稳性学术会议在青岛召开.....黄永楷 (12)
- 激光防护眼镜玻璃通过鉴定并推广生产.....纪 钟 (40)
- 激光热处理用的宽带激光光束处理装置.....吉 禾 (56)

CONTENTS

- Discussion on two-photon laser oscillation process.....Sun Songgen (1)
- Phase and width of picosecond light pulses measured by third order correlation function method
.....Liu Yixian, Lin Jun, Li Xiaoliang, Li Fuming (5)
- Characteristics of optogalvanic spectrum in discharge plasma oscillation
..... Gui Zhenqing, Wang Yumin, Zhang Shunyi, Shen Guirong, Fang Xuexin, Wang Runwen (8)
- Study of super-soft X-ray emission from laser plasma
.....Ouyang Bin, Yu Jiajin, Lu Haihe, P. H. Y. Lee (13)
- A CARS setup for precise measurement of spectral shift and study of spectral shifts in gas-liquid
phase changes..... Wang Qinyu, Dong Genfa, Jin Yaogen, Qian Shixiong, Li Yufen (16)
- Study of aberration characteristics for 3-D holographic screens Xu Kunxian (20)
- Double exposure in electron holography Chen Jianwen et al. (24)
- Experimental study of effect of axial magnetic field in free-electron lasers
..... Chu Cheng, Shi Ruigen, Lu Zaitong, Zhuang Guoliang, Zhang Lifan, Hu Yu, Shi Jinchun (27)
- Generation of narrow band, tunable UV radiation—intracavity frequency doubling of a ring
dye laser output.....Lin Hai, Kuang Yizhong, Yong Huayong, Li Dayi (31)
- Measurement of periodic length of self-focusing media by molecular scattering method
..... Cheng Xiwang, Zhang Chunxiang (34)
- An actively mode-locked laser—prelasing mode-locked laser
.....Tang Guishen, Qiu Peixia, Lin Weiping, Chen Youming, Zhen Xiangdong (37)
- A miniature pulsed $\text{NdP}_5\text{O}_{14}$ laser.....Liu Jishang et al. (41)
- Experimental investigation on copper vapor laser oscillator-amplifier system(1)
..... Liang Peihui, Ren Hong, Wang Zhiying, Wo Minzheng (45)
- Study on efficient transverse electric excitation CW CO_2 laser
.....Liu Donghua, Han Yanseng, Li Feng, Li Zaiquan (49)
- Study of laser coating and alloying on surface of some steels
.....Su Baorong, Huang Dequn, Wang Haobing, Chen Lanying, Wang Jinzhong (52)

SCIENCE NOTES

- A XeCl excimer laser with automatic preionization..... Li Zhaolin et al. (57)
- Optically pumped tunable NH_3 laser in 12 μm band Li Yude, Kuang Yizhong, Gou Hongtao (59)
- Measuring noise of He-Ne lasers.....Liu Zhiguo, Ba Enxu, Lu Kecheng, Wang Lijun, Liu Lixin (61)
- Study on a magnetically modulated He-Ne laser Cheng Zuzhen, Wang Shuguang (62)

LETTERS

- The Second National Conference on Quantum Optics and Optical Bistability held in Qindao
.....Huang Yongkai (12)
- Laser goggle glass expertized for putting into production..... Ji Zhong (40)
- Broadband laser device for laser heattreatment Je He (56)