

目 录

激光器件

- 超短脉冲激光的高效三倍频实验研究 许伟民 李永春 何慧娟 顾圣如 (129)
- 用光电子开关技术提高高功率激光系统的信噪比
..... 支婷婷 陈兰荣 余文炎 曹渭楼 刘凤翹 吴莲春 (135)
- 无纵模匹配注入锁定短脉冲染料激光器 张铁军 (162)
- 铜蒸气激光器的输出特性与腔长的关系 任虹 梁培辉 沈琪敏 刘俊秋 孙晓翔 (164)

实验技术与元件

- 光纤电流传感器传感头的结构与理论 廖延彪 陈国霖 (138)
- 电光调制的频谱特性——I. 外腔调制 代伐 冯志超 (167)
- 电光调制的频谱特性——II. 内腔调制 代伐 冯志超 蒲文嘉 (170)
- 钛扩散铌酸锂波导多电极 $4B$ 倒相定向耦合器 汤小泓 陈铮 蔡伯荣 (173)
- 一种新型的多光束光纤干涉仪 余永安 郑顺旋 郭斯淦 梁振斌 (176)
- 无变压器大功率稳流连续固体激光电源 宁喜发 姚建铨 (177)
- 高灵敏度宽波段激光能量计 向立人 (180)

激光物理与激光化学

- 被动锁模涨落脉冲数和第二阈值研究 尤南昌 陈绍和 何伟明 宋贵才 余文炎 邓锡铭 (141)
- 等离子体细丝中光束传播的正则模分析 顾敏 谭维翰 (148)
- 激光等离子体 X 光谱的高精度测量 冯贤平 徐至展 张正泉 陈时胜 郑丹青 (151)
- 硅相变过程中皮秒性质的研究 马海明 刘一先 李富铭 (153)
- 光反馈对半导体激光器动态频率漂移的抑制 李林林 (182)
- 实现激光核聚变的一种新方案 谭维翰 余文炎 邓锡铭 (190)

激光应用

- 用稳光程干涉仪拍频检测小位移 汤俊雄 李爱国 (156)
- 散斑动态存储 顾杰 王开福 沈永昭 (159)

激光医学

- 血管舒缩性鼻炎的氩激光治疗 张立中 杨栋 (185)
- 应用 CO_2 激光点射治疗微神经卡压症的探讨 柏龙文 李四季 于白衣 刘旭 王成保 (187)

CONTENTS

•LASER DEVICES•

- Experimental study on THG of ultrashort laser pulses.....*Xu Weiming et al.* (129)
- Signal to noise ratio improvement for high power laser systems by photoelectron switch technique.....*Zhi Tingting et al.* (135)
- Injection-locked short pulsed dye laser without longitudinal mode matching.....*Zhang Tiejun* (162)
- Relation between output properties of copper vapor laser and its resonator length.....
.....*Ren Hong et al.* (164)

•EXPERIMENTAL TECHNIQUES AND ELEMENTS •

- Structure and analysis of sensing heads in optical fiber current sensors.....
.....*Liao Yanbiao, Chen Guolin* (138)
- Spectral analyses of electrooptic modulation—I. External modulation ...*Dai Fa, Feng Zhichao* (167)
- Spectral analyses of electrooptic modulation—II. Internal modulation
.....*Dai Fa, Feng Zhichao, Pu Wenjia* (170)
- Ti-LiNbO₃ channel waveguide switched directional coupler with alternating $\Delta\beta$
.....*Tang Xiaohong, Chen Zheng, Cai Borong* (173)
- A new multibeam optical fiber interferometer.....
.....*Yu Yong'an, Zheng Shunxuan, Guo Sigang, Liang Zhenbin* (176)
- Transformerless high power current-stabilized power supply for CW solid-state lasers.....
.....*Ning Xifa, Yao Jianquan* (177)
- A high-sensitivity wide wavelength range laser energy meter*Xiang Liren* (180)

•LASER PHYSICS AND LASER CHEMISTRY •

- Investigation on fluctuation pulse and the second threshold of passive mode locking
.....*You Nanchang et al.* (141)
- Normal mode analysis of laser beams propagating in a plasma filament...*Gu Min, Tan Weihan* (148)
- High accuracy measurement of laser induced X-ray spectrum from GaAs plasma.....
.....*Feng Xianping et al.* (151)
- Study of picosecond properties during phase transition in silicon.....*Ma Haiming et al.* (153)
- Suppression of dynamic frequency shift in semiconductor lasers by optical feedback.....*Li Linlin* (182)
- A new approach for laser fusion*Tan Weihan, Yu Wenyan, Deng Ximing* (190)

•LASER APPLICATIONS•

- Measurement of small displacement by an interferometer of stable optical path difference and heterodyne detection.....*Tang Junxiong, Li Aiguo* (156)
- Speckle photography for storage of dynamic figures*Gu Jie, Wang Kaifu, Shen Yongzhao* (159)

•LASER MEDICINE•

- Ar⁺ laser in the treatment of vasomotor rhinitis*Zhang Lizhong, Yang Dong* (185)
- Treatment of microneuro branch "grasping" syndrome with CO₂ laser irradiation
.....*Bai Longwen et al.* (187)