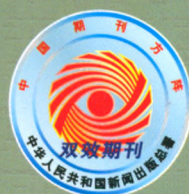


- EI Compendex, CA, SA 收录期刊
- 原子能技术类中文核心期刊

ISSN 1001-4322
CN 51-1311/O4
CODEN QYLIEL

强激光与粒子束

HIGH POWER LASER AND PARTICLE BEAMS



中国工程物理研究院
中国核学会 主办
四川核学会

第24卷 第11期

2012

目 次

研究快报

增益开关锁模 2 μm 铯/铱共掺光纤激光器 杨未强, 张 斌, 侯 静, 等 (2521)

高功率激光与光学

内混合气溶胶粒子体系有效吸收系数的计算 徐 博, 黄印博, 范承玉, 等 (2523)

薄片激光介质分区域主动冷却方法 母 健, 冯国英, 杨火木, 等 (2527)

激光驱动飞片加速特征分析 王 飞, 陈 朗, 伍俊英, 等 (2531)

准分子宽带泵浦碱金属激光器泵浦特性分析 岳德胜, 李文煜, 王红岩, 等 (2537)

正交光楔激光远场焦斑测量方法 贺元兴, 李新阳 (2543)

全光纤激光多普勒测振仪空气耦合振动检测 李斐斐, 吴 谨, 赵志龙, 等 (2549)

基于子孔径拼接的 Hindle 球检测法 闫锋涛, 范 斌, 侯 溪, 等 (2555)

水下光束漂移激光图像抗畸变识别 姚广涛, 张晓晖, 戴 路 (2560)

阻尼最小二乘法 CARS 光谱温度拟合 王 晟, 胡志云, 张振荣, 等 (2565)

掺镱光纤放大器泵浦脉宽优化 魏 涛, 谭治英, 李剑峰, 等 (2571)

含气量对激光空泡在刚性壁面空蚀的影响 刘 涛, 王江安, 宗思光, 等 (2576)

kW 级光纤耦合输出二极管激光器模块 谭 昊, 郭林辉, 高松信, 等 (2581)

非线性介质表面缺陷对激光光场的调制 苏倩倩, 张国文, 陶 华, 等 (2585)

角多路等间距分立阵列编解码方法 马连英, 张永生, 安晓霞 (2591)

神光 II 激光装置集中控制系统设计 曾沛颖, 汤晓云, 杨学东, 等 (2595)

532 nm 纳秒激光辐照下的单晶硅表面微结构及荧光特性 常利阳, 李晓红, 邱 荣, 等 (2599)

飞秒激光制备可见光水分解催化 Fe 纳米晶 张秋慧, 冯国英, 韩敬华, 等 (2604)

ICF 与激光等离子体

精炼温度对空心玻璃微球性能的影响 漆小波, 高 聪, 张占文, 等 (2607)

湿法和溶脱法的亚微米 ZnO:Al 光栅制备 刘仁臣, 吴永刚, 夏子奕, 等 (2613)

适应强扭曲网格的扩散方程时空二阶精度计算 郭少冬, 周海兵, 张树道 (2618)

神光 III 主机装置真空靶室组件研制 徐元利, 陈学前, 高海鹰, 等 (2623)

X 射线相衬成像法检测内爆靶参数 高党忠, 赵学森, 马小军, 等 (2627)

提高多层介质膜脉宽压缩光栅阈值的清洗方法(英) 陈上碧, 盛 斌, 邱克强, 等 (2636)

计算全息检测离轴非球面的离散相位拟合 李世杰, 伍 凡, 陈 强 (2637)

均苯三酚改性三聚氰胺-甲醛气凝胶的制备与表征 刘天时, 陈 庚, 任洪波, 等 (2642)

毫米级单分散聚- α -甲基苯乙烯空心微球制备 陈素芬, 刘一杨, 魏 胜, 等 (2647)

超强飞秒激光驱动气体靶致 X 光源的背光成像 朱 巍, 叶 雁, 朱鹏飞, 等 (2651)

HT-7 托卡马克等离子体密度调制实验中的逃逸电子行为 卢洪伟, 查学军, 钟方川, 等 (2655)

长亚甲基链段改性固化剂的制备与性能 李镇江, 梁 玮, 孙 鹏, 等 (2660)

离轴非球面镜精磨阶段的三坐标检测技术 林长青, 景洪伟, 匡 龙, 等 (2665)

双束探测光测量激光等离子体动量 郑志远, 樊振军, 邢 杰, 等 (2669)

硅基支撑系统的光刻工艺 罗跃川, 张继成 (2673)

聚苯乙烯单层空心微球掺疏层不均匀结构研究 刘一杨, 苏 琳, 刘梅芳, 等 (2677)

高功率微波

95 GHz 三次谐波回旋管设计 孙迪敏, 马国武, 陈洪斌, 等 (2683)

三维周期结构弱无条件稳定时域有限差分算法 刘宗信, 陈亦望, 徐 鑫, 等 (2687)

折叠矩形槽波导行波管输入输出过渡波导 田艳艳, 岳玲娜, 徐 进, 等 (2693)

V 波段大功率带状注曲折波导行波管 刘 洋, 徐 进, 魏彦玉, 等 (2698)

大型双反射面天线近轴区辐射 FDTD-TDPO 模拟 朱湘琴, 王建国, 蔡利兵, 等 (2703)

低阻无箔渡越辐射振荡器励磁系统 曹亦兵, 贺军涛, 张建德, 等 (2709)

钢筋网对高功率微波衰减特性的影响 刘 锋, 吕 昕, 李跃波, 等 (2713)

加速器技术

强流束在二极磁场中传输的模拟计算 李超龙, 石海泉, 刘正方, 等 (2718)

325 MHz spoke 腔的二次电子倍增效应 徐 波, 李中泉, 沙 鹏, 等 (2723)

核实验数据获取系统中的触发信号预处理 张建川, 王彦瑜, 南钢洋, 等 (2727)

粒子束技术

基片与多形态缺陷粒子的复合光散射 巩 蕾, 吴振森, 白 璐 (2731)

激光熔覆原位合成 Nb(C, N)陶瓷颗粒增强铁基金属涂层 李桂花, 邹 勇, 邹增大, 等 (2735)

零电磁材料聚焦器 杨 杰, 陈德章, 杨晶晶, 等 (2741)

超音速等离子体点火过程的三维数值模拟 宋振兴, 何立明, 张建邦, 等 (2746)

非晶硅薄膜太阳能电池的紫外激光刻蚀工艺 张 超, 张庆茂, 郭 亮, 等 (2751)

CMOS 电路总剂量效应最劣偏置甄别 丁李利, 郭红霞, 王忠明, 等 (2757)

脉冲功率技术

脉冲电流波形对固体电枢滑行性能的影响 李敏堂, 王广东, 张春和, 等 (2763)

PTS 装置工作模式及波形调节 夏明鹤, 计 策, 王玉娟, 等 (2768)

讯 息

High Power Laser Science and Engineering 征稿启示 (2750)

期刊基本参数:CN 51—1311/O4 * 1989 * m * A4 * 252 * zh+en * P * ¥40.00 * 1000 * 52 * 2012-11

CONTENTS

• Research Letter •

Gain-switched and mode-locked 2 μm Tm/Ho-codoped fiber laser Yang Weiqiang, Zhang Bin, Hou Jing, et al. (2522)

• High Power Laser and Optics •

Calculation of effective absorption coefficient for aerosols of internal mixture Xu Bo, Huang Yinbo, Fan Chengyu, et al. (2526)

District cooling method for thin disk-type laser media Mu Jian, Feng Guoying, Yang Huomu, et al. (2530)

Acceleration characteristics of flyers driven by pulsed laser beams Wang Fei, Chen Lang, Wu Junying, et al. (2536)

Analysis of threshold pump intensity of excimer pumped alkali laser Yue Desheng, Li Wenyu, Wang Hongyan, et al. (2542)

Far-field focal spot measurement method based on orthogonal wedges He Yuanxing, Li Xinyang (2548)

Air coupled vibration detection of all-fiber laser Doppler vibrometer Li Feifei, Wu Jin, Zhao Zhilong, et al. (2554)

Hindle-sphere method based on sub-aperture stitching Yan Fengtao, Fan Bin, Hou Xi, et al. (2559)

Anti-distortion correlation recognition of underwater beam drift laser images Yao Guangtao, Zhang Xiaohui, Dai Lu (2564)

Temperature estimation of coherent anti-stokes Raman scattering spectra using Levenberg-Marquardt algorithm Wang Sheng, Hu Zhiyun, Zhang Zhenrong, et al. (2570)

Pump pulse width optimization of Yb-doped fiber amplifier Wei Tao, Tan Zhiying, Li Jianfeng (2575)

Influence of air content on cavitation erosion by laser-generated bubble near rigid boundaries Liu Tao, Wang Jiang'an, Zong Siguang, et al. (2580)

kW-output fiber coupled diode laser module Tan Hao, Guo Linhui, Gao Songxin, et al. (2584)

Modulation of nonlinear medium with surface defects on intensity properties of laser Su Qianqian, Zhang Guowen, Tao Hua, et al. (2590)

Multiplexing decoding and coding method based on separate arrays arranged with equal interval Ma Lianying, Zhang Yongsheng, An Xiaoxia (2594)

Design of Shenguang-II facility centralized control system Zeng Peiying, Tang Xiaoyun, Yang Xuedong, et al. (2598)

Surface microstructures and photoluminescence characteristics of monocrystalline silicon irradiated by 532 nm nanosecond laser Chang Liyang, Li Xiaohong, Qiu Rong, et al. (2603)

Fabrication of Fe nanocrystal as water-splitting photocatalyst based on femtosecond laser Zhang Qiuhui, Feng Guoying, Han Jinghua, et al. (2606)

• ICF and Laser Plasma •

Influences of refining temperatures on properties of hollow glass microspheres Qi Xiaobo, Gao Cong, Zhang Zhanwen, et al. (2612)

Fabrication of submicron ZnO:Al gratings with wet etching and lift-off technology Liu Renchen, Wu Yonggang, Xia Zihuan, et al. (2617)

Calculation of second-order spatial and temporal accuracy for diffusion equation on strongly distorted meshes Guo Shaodong, Zhou Haibing, Zhang Shudao (2622)

Development of vacuum target chamber component in Shenguang-III laser facility Xu Yuanli, Chen Xueqian, Gao Haiying, et al. (2626)

Measurement of implosion target parameters by X-ray phase contrast imaging Gao Dangzhong, Zhao Xuesen, Ma Xiaojun, et al. (2630)

Cleaning method for improving laser induced damage threshold of multilayer dielectric pulse compressor gratings Chen Shangbi, Sheng Bin, Qiu Keqiang, et al. (2631)

Fitting of discrete phase of computer generated hologram for off-axis aspheric test Li Shijie, Wu Fan, Chen Qiang (2641)

Preparation and characterization of melamine-formaldehyde aerogel modified by phloroglucinol

.....	<i>Liu Tianshi, Chen Geng, Ren Hongbo, et al.</i>	(2646)
Fabrication of millimeter-sized monodisperse poly(α -methylstyrene) capsules	<i>Chen Sufen, Liu Yiyang, Wei Sheng, et al.</i>	(2650)
Backlight imaging by X-ray irradiation from high-intensity femtosecond-laser driven gas targets	<i>Zhu Wei, Ye Yan, Zhu Pengfei, et al.</i>	(2654)
Runaway electron behavior in plasma density modulation experiments in HT-7 Tokamak	<i>Lu Hongwei, Zha Xuejun, Zhong Fangchuan</i>	(2659)
Preparation and performance of curing agent modified with long methylene chains	<i>Li Zhenjiang, Liang Wei, Sun Peng, et al.</i>	(2664)
Measuring technique for off-axis aspherical mirror in fine grinding process using coordinate measurement machine	<i>Lin Changqing, Jing Hongwei, Kuang Long, et al.</i>	(2668)
Target momentum measurement in laser plasma propulsion using two probe beams	<i>Zheng Zhiyuan, Fan Zhenjun, Xing Jie, et al.</i>	(2672)
Photolithography process of Si support system	<i>Luo Yuechuan, Zhang Jicheng</i>	(2676)
Investigation of non-uniform structure of sulfur doped monolayer for polystyrene hollow microspheres	<i>Liu Yiyang, Su Lin, Liu Meifang, et al.</i>	(2682)
• High Power Microwave •		
Design of 95 GHz third-harmonic gyrotrons	<i>Sun Dimin, Ma Guowu, Chen Hongbin, et al.</i>	(2686)
Weakly conditionally stable 3-D FDTD method for periodic structures	<i>Liu Zongxin, Chen Yiwang, Xu Xin, et al.</i>	(2692)
Transition waveguide for traveling wave tubes with folded rectangular groove waveguide	<i>Tian Yanyan, Yue Lingna, Xu Jin, et al.</i>	(2697)
V-band high-power sheet-beam folded-waveguide traveling-wave tube	<i>Liu Yang, Xu Jin, Wei Yanyu, et al.</i>	(2702)
FDTD-TDPO hybrid method for radiation simulation near axes of large dual reflector antennas	<i>Zhu Xiangqin, Wang Jianguo, Cai Libing, et al.</i>	(2708)
Excitation system of low-impedance foilless transition-radiation oscillator	<i>Cao Yibing, He Juntao, Zhang Jiande, et al.</i>	(2712)
Attenuation characteristics of high power microwave penetrating through reinforcement nets	<i>Liu Feng, Lü Xin, Li Yuebo, et al.</i>	(2717)
• Accelerator Technology •		
Simulation calculation of intense beam transporting in dipole magnet field	<i>Li Chaolong, Shi Haiquan, Liu Zhengfang, et al.</i>	(2722)
Multipacting of 325 MHz spoke cavity for accelerator driven sub-critical system	<i>Xu Bo, Li Zhongquan, Sha Peng, et al.</i>	(2726)
Trigger signal pre-processing in nuclear physics experiment data acquisition systems	<i>Zhang Jianchuan, Wang Yanyu, Nan Gangyang, et al.</i>	(2730)
• Particle Beams Technology •		
Light scattering by wafers and multi shaped defect particles	<i>Gong Lei, Wu Zhensen, Bai Lu</i>	(2734)
In-situ synthesis of Nb(C, N) ceramic particulates reinforced Fe-based composite coatings by laser cladding	<i>Li Guihua, Zou Yong, Zou Zengda, et al.</i>	(2740)
Zero-electric and zero-magnetic material focuser	<i>Yang Jie, Chen Dezhang, Yang Jingjing, et al.</i>	(2745)
3D numerical simulation of supersonic plasma ignition process	<i>Song Zhenxing, He Liming, Zhang Jianbang, et al.</i>	(2750)
Ablating process with 355 nm laser for amorphous silicon thin-film solar cell	<i>Zhang Chao, Zhang Qingmao, Guo Liang, et al.</i>	(2756)
Identification of worst-case bias condition for total ionizing dose effect of CMOS circuits	<i>Ding Lili, Guo Hongxia, Wang Zhongming, et al.</i>	(2762)
• Pulsed Power Technology •		
Effect of pulse current waveform on sliding performance of solid armatures	<i>Li Mintang, Wang Guangdong, Zhang Chunhe, et al.</i>	(2767)
Operation models and waveform shaping of primary test stand	<i>Xia Minghe, Ji Ce, Wang Yujuan, et al.</i>	(2772)