

强激光与粒子束

HIGH POWER LASER AND PARTICLE BEAMS

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

第 32 卷
第 8 期

2020.8



中国工程物理研究院
中国核学会 主办
四川核学会

目次

强激光物理与技术

- 光学炮塔气动载荷的非稳态特性..... 陈勇,路大举,谢伟明,等 081001(5)
- 基于变形镜本征模式和远场测量的光束净化..... 梁佳新,向汝建,杜应磊,等 081002(8)
- 伽马辐照对掺镱光纤材料特性影响的研究..... 李奋飞,周晓燕,张魁宝,等 081003(6)
- 图像处理在双波长激光诱导熔石英损伤增长中的应用..... 李翠,史晋芳,邱荣,等 081004(6)
- 线偏振相位涡旋光束的像散特性..... 龙凤琼,郑世杰,李玮,等 081005(6)

惯性约束聚变物理与技术

- 一种脉冲强电流条件下导线电阻测量方法..... 王为武,单连强,田超,等 082001(5)

高功率微波技术

- Ka波段分布作用速调管降压收集极设计..... 王柳亚,丁海兵 083001(9)
- 220 GHz 均匀永磁聚焦行波管电子光学系统的设计与实验研究..... 曾造金,胡芯瑞,蒋艺,等 083002(5)
- 汽车发动机转速传感器瞬变脉冲敏感性研究..... 王震,蔡金良,秦凤,等 083003(6)
- 星载X频段1600W高幅相一致性脉冲行波管放大器..... 黄微波,杨飞,李晖,等 083004(5)

粒子束及加速器技术

- CSNS 加速器真空控制系统的设计与实现..... 康明涛,黄涛,张玉亮,等 084001(7)
- 离子能量分析器测量特性的仿真研究..... 翟红雨,程健,陈银华,等 084002(8)
- 基于合肥先进光源的准直参考网络机械设计及其仿真分析..... 张海艇,何晓业,王巍,等 084003(7)
- 基于Lattice Server中间件的束流光学参数测量..... 李承义,罗箐,刘功发,等 084004(5)
- 7 MeV 注入剥离膜系统设计..... 陈佳鑫,郑家煦,康玲,等 084005(5)
- 基于MTCA的HLS-II直线加速器低电平系统改造..... 任天祺,唐雷雷,周泽然 084006(5)
- 单元素靶粒子位移损伤计算方法及有效模式分析..... 李欣,赵强,郝建红,等 084007(6)

脉冲功率技术

- 采用单开关谐振电路的脉冲电源设计..... 饶俊峰,吴改生,王永刚,等 085001(8)
- 磁驱动飞片发射实验结构系数初步研究..... 闾明先,段书超,王刚华,等 085002(6)

期刊基本参数: CN 51-1311/O4 * 1989 * m * A4 * 120 * zh * P * ¥100.00 * 1000 * 19 * 2020-08

责任编辑: 李冬梅

英文编校: 李天惠

责任校对: 刘玉娜

封面设计: 杨嘉炜

HIGH POWER LASER AND PARTICLE BEAMS

Vol. 32 No. 8 (Sum 278) Aug. 15, 2020

CONTENTS

• High Power Laser Physics and Technology •

- Unsteady characteristics of aerodynamic loads on a turret *Chen Yong, Lu Daju, Xi Weiming, et al.* **081001(5)**
- Laser beam cleanup based on deformable-mirror eigen modes and far-field measurement
.....*Liang Jiabin, Xiang Rujian, Du Yinglei, et al.* **081002(8)**
- Effect of gamma irradiation on characteristics of Yb-doped fiber materials
..... *Li Fenfei, Zhou Xiaoyan, Zhang Kuibao, et al.* **081003(6)**
- Application of image processing in dual-wavelength laser-induced damage growth of fused silica
..... *Li Cui, Shi Jinfang, Qiu Rong, et al.* **081004(6)**
- Astigmatic characteristics of linearly polarized phase vortex beam
..... *Long Fengqiong, Zheng Shijie, Li Wei, et al.* **083005(6)**

• Inertial Confinement Fusion Physics and Technology •

- A method for estimating coil resistance with pulsed strong electric current
.....*Wang Weiwu, Shan Lianqiang, Tian Chao, et al.* **082001(5)**

• High Power Microwave Technology •

- Design of depressed collector for Ka-band extended interaction klystron *Wang Liuya, Ding Haibing* **083001(9)**
- Uniform permanent magnetic focusing electron optical system for 220 GHz travelling wave tube
..... *Zeng Zaojin, Hu Xinrui, Jiang Yi, et al.* **083002(5)**
- Susceptibility of automotive engine speed sensor to transient electromagnetic pulse
..... *Wang Zhen, Cai Jinliang, Qin Feng, et al.* **083003(6)**
- X-band 1600 W wideband amplitude-phase coherence pulsed TWTA for space application
..... *Huang Weibo, Yang Fei, Li Hui, et al.* **083004(5)**

• Particle Beams and Accelerator Technology •

- Design and implementation of vacuum control system of China Spallation Neutron Source
..... *Kang Mingtao, Huang Tao, Zhang Yuliang, et al.* **084001(7)**
- Simulation study on measurement characteristics of ion energy analyzer
..... *Zhai Hongyu, Cheng Jian, Chen Yinhua, et al.* **084002(8)**
- Design and simulation analysis of mechanical system of reference network for alignment based on Hefei Advanced Lightsource Facility
..... *Zhang Haiting, He Xiaoye, Wang Wei, et al.* **084003(7)**
- Beam optical parameter measurement based on Lattice Server middlelayer
..... *Li Chengxi, Luo Qing, Liu Gongfa, et al.* **084004(5)**
- Design of the stripper foils system at a 7 MeV injection
..... *Chen Jiabin, Zheng Jiayu, Kang Ling, et al.* **084005(5)**
- Upgrade of low level RF system based on Micro Telecom Computing Architecture (MTCA) for HLS-II LINAC
..... *Ren Tianqi, Tang Leilei, Zhou Zeran* **084006(5)**
- Calculation method and modes of radiation damage for single element target
..... *Li Xin, Zhao Qiang, Hao Jianhong, et al.* **084007(6)**

• Pulsed Power Technology •

- Design of pulsed power supply using single switch resonance circuit
..... *Rao Junfeng, Wu Gaisheng, Wang Yonggang, et al.* **085001(8)**
- Structure coefficient in magnetically driven flyer plate experiment
..... *Kan Mingxian, Duan Shuchao, Wang Ganghua, et al.* **085002(6)**