

目次

强激光物理与技术

- 国产啁啾布拉格光纤光栅在飞秒激光系统中的应用 林庆典, 陈业旺, 余军, 等 041001 (3)
- 单端泵浦光纤放大器获得4 kW单模窄谱激光输出 杨保来, 张汉伟, 王鹏, 等 041002 (2)
- 高功率掺镱光纤激光器的辐照影响分析及研究进展 郑也, 马梓洋, 朱嘉婧, 等 041003 (15)
- 方形超高斯光束在Kerr介质中的强度演化特性 艾亦章, 吕奇霖, 李世文, 等 041004 (7)
- 高温合金不同脉宽超快激光作用下多脉冲去除阈值 高云, 杨泽南, 宋成伟, 等 041005 (7)
- 基于单元干涉仪的计算机断层扫描重建光纤三维折射率分布 王驰, 解翔宇, 邓颖, 等 041006 (8)

高功率微波技术

- 微型无刷直流电机位置系统的过程控制 许睿, 王邦继, 刘庆想, 等 043001 (7)
- 双枝节加载的L波段宽带高隔离度定向耦合器 马壮, 周东方, 张德伟, 等 043002 (6)
- 一种基于双环差分结构的脉冲磁场传感器 王可, 段艳涛, 石立华, 等 043003 (5)
- 伸缩式全金属反射阵列扫描天线 赵旭浩, 毕绍锋, 张建德, 等 043004 (6)
- 基于量热法的大功率毫米波功率测量及校准系统设计 黄麒力, 胡林林, 马国武, 等 043005 (4)
- 基于区间的传输线感应电压不确定性分析方法 王旭桐, 周辉, 程引会 043006 (4)
- X波段高功率负载的优化设计与测试 李秦, 柴熙源, 唐运盖, 等 043007 (9)
- C/Ku波段共口径宽角度扫描相控阵天线 邓洲, 钟选明, 程友峰, 等 043008 (7)

粒子束及加速器技术

- 粒子加速器局部控制网形变分析 张旭东, 陈文军, 张小东, 等 044001 (8)
- 单谐振腔束团长度监测器耦合结构设计与仿真 虞还湘, 孙葆根, 罗菁, 等 044002 (7)
- 环路热管式光子吸收器的换热可行性 范庆梅, 刘佰奇, 李琦, 等 044003 (5)
- CCD电子辐照效应三维蒙特卡罗模拟研究 谭群, 范杰清, 赵强, 等 044004 (6)
- 20 cm口径离子推力器力学特性模拟分析 史楷, 孙明明, 顾左, 等 044005 (8)
- 可调电子束注入器调配调谐结构的设计及分析(英) 袁雅婷, 曾冰倩, 胡桐宁, 等 044006 (7)

脉冲功率技术

- 模块化Marx发生器机芯的力学环境适应性分析及优化设计 肖晶, 王海洋, 谢霖桑, 等 045001 (7)
- 基于谐振电路与脉冲变压器的高压脉冲源设计 饶俊峰, 汤鹏, 王永刚, 等 045002 (7)

前沿技术与交叉科学

- 大气压微波等离子体射流装置放电特性研究 潘惠, 王舸, 杨阳 049001 (8)
- 双束等离子体尾波加速中的束流相对能散预测 王晓宁, 高杰, 安维明, 等 049002 (5)

CONTENTS

• High Power Laser Physics and Technology •

Application of domestic chirped fiber Bragg gratings in femtosecond laser systems *Lin Qingdian, Chen Yewang, Yu Jun, et al.* **041001(3)**

4 kW single mode narrow linewidth fiber laser achieved in single-end pumped fiber amplifier
..... *Yang Baolai, Zhang Hanwei, Wang Peng, et al.* **041002(2)**

Influence of space radiation on properties of high power Yb-doped fiber lasers and their recent progress
..... *Zheng Ye, Ma Ziyang, Zhu Jiajing, et al.* **041003(15)**

Intensity evolution characteristics of square super-Gaussian beam in Kerr medium *Ai Yizhang, Lü Qilin, LI Shiwen, et al.* **041004(7)**

Multi-pulses ablation threshold of Ni-based superalloy irradiated by ultrafast laser with different pulse duration
..... *Gao Yun, Yang Zenan, Song Chengwei, et al.* **041005(7)**

Three-dimensional refractive index reconstruction of optical fibers based on single-element interferometer computed tomography
..... *Wang Chi, Xie Xiangyu, Deng Ying, et al.* **041006(8)**

• High Power Microwave Technology •

Position process control system of miniature brushless DC motor *Xu Rui, Wang Bangji, Liu Qingxiang, et al.* **043001(7)**

Dual-branch loaded L-band broadband high isolation directional coupler *Ma Zhuang, Zhou Dongfang, Zhang Dewei, et al.* **043002(6)**

A pulsed magnetic field sensor based on dual-loop differential structure *Wang Ke, Duan Yantao, Shi Lihua, et al.* **043003(5)**

Scalable all-metal reflective array beam scanning antenna *Zhao Xuhao, Bi Shaofeng, Zhang Jiande, et al.* **043004(6)**

Design of high power millimeter wave power measurement and calibration system based on calorimetry
..... *Huang Qili, Hu Linlin, Ma Guowu, et al.* **043005(4)**

Uncertainty analysis method of induced voltage of transmission line based on interval *Wang Xutong, Zhou Hui, Cheng Yinhui* **043006(4)**

Design and test of X-band high power loads *Li Qin, Chai Xiyuan, Tang Yungai, et al.* **043007(9)**

C/Ku band shared-aperture wide-angle scanning phased array antenna *Deng Zhou, Zhong Xuanming, Cheng Youfeng, et al.* **043008(7)**

• Particle Beams and Accelerator Technology •

Analysis on deformation of partial control network of particle accelerator *Zhang Xudong, Chen Wenjun, Zhang Xiaodong, et al.* **044001(8)**

Design and simulation of the coupler of single resonant cavity bunch length monitor *Tuo Huanxiang, Sun Baogen, Luo Qing, et al.* **044002(7)**

Feasibility study of photon absorber heat extracted by loop heat pipe *Fan Qingmei, Liu Baiqi, Li Qi, et al.* **044003(5)**

Three-dimensional Monte Carlo simulation of electron radiation effects on CCD *Tan Qun, Fan Jieqing, Zhao Qiang, et al.* **044004(6)**

Mechanical properties analysis of a 20 cm diameter ion thruster *Shi Kai, Sun Mingming, Gu Zuo, et al.* **044005(8)**

Design and analysis of a tunable coupler for application to adjustable beam injectors *Yuan Yating, Zeng Bingqian, Hu Tongning, et al.* **044006(7)**

• Pulsed Power Technology •

Adaptability analysis and optimization design of modular Marx generator in mechanical environment
..... *Xiao Jing, Wang Haiyang, Xie Linshen, et al.* **045001(7)**

Design of high voltage pulse generator based on resonant circuit and pulse transformer *Rao Junfeng, Tang Peng, Wang Yonggang, et al.* **045002(7)**

• Advanced Interdisciplinary Science •

Design and study of atmospheric pressure microwave plasma jet *Pan Hui, Wang Ge, Yang Yang* **049001(8)**

Predicting relative energy spread in two-bunch plasma wakefield acceleration *Wang Xiaoning, Gao Jie, An Weiming, et al.* **049002(5)**