



(He Jishu)

目 次

同步辐射技术及应用

任意形状的脉冲信号发生器的研制 江家友 陈志豪 (241)

压弯镜系统自重平衡多点调节方法的研究 孙福权 傅远 祝万钱 薛松 (246)

数字化平均流强测量方法研究 熊亮 殷重先 刘鸣 陈建锋 (251)

BEPcII-LINAC 试验束第二靶室混合辐射测量探测器的研制 唐兴华 李家才 徐进章 柯尊建 安广朋等 (255)

BEPcII-LINAC 试验束次级粒子的模拟分析及质子能谱测量 杨涛 李家才 唐兴华 顾运斤 柯尊建等 (261)

低能加速器技术、射线技术及应用

$^{12}\text{C}^{6+}$ 离子束辐照对紫苏生理特性的影响 薛林贵 徐俊泉 张红 武振华 赵旭 (267)

D-T 快中子照相准直屏蔽体设计及中子束特性的模拟研究 刘洋 沈飞 杨尧 闫永宏 严岩等 (273)

某废弃铀矿区环境放射性污染现状调查 周程 赵福祥 (278)

托卡马克装置中氢同位素滞留研究现状 赵利平 吴婧 谢春意 罗广南 (283)

核化学、放射性药物和核医学

Avidin-dendrimer 对 HeLa 细胞的靶向研究 许晓平 张元庆 沈玉梅 (293)

核电子学与仪器

宽频带电磁脉冲电场传感器的研制与测试 张晓明 孟萃 魏明 刘尚合 (299)

X 射线荧光测井仪器系统研制 申凤君 葛良全 杨强 张庆贤 谷懿 (304)

低本底放射性气体测量装置 解峰 姜文刚 何小兵 李雪松 常永福 (309)

核能技术

外中子源驱动式核电源 王三丙 贺朝会 (313)

核科学与交叉学科研究

振动扫描极化力显微技术原位研究乙醇在云母表面的吸附行为 张东华 胡钧 (317)

Nuclear Techniques

Vol.34 No.4

April 2011

Contents

SYNCHROTRON TECHNOLOGY AND APPLICATIONS

- A pulse generator of arbitrary shaped waveform JIANG Jiayou CHEN Zhihao (241)
- A study on multi-point gravity compensation of mirror bending system
..... SUN Fuquan FU Yuan ZHU Wanqian XUE Song (246)
- Digital DC beam current measurement on SSRF storage ring
..... XIONG Liang YIN Chongxian LIU Ming CHEN Jianfeng (251)
- Development of the mixed radiation detector for target chamber II of BEPCII-LINAC test beam
..... TANG Xinghua LI Jiakai XU Jinzhang KE Zunjian AN Guangpeng *et al* (255)
- Simulation of secondary particles and measurement of the proton spectrum on BEPCII-LINAC test beam
..... YANG Tao LI Jiakai TANG Xinghua GU Yunting KE Zunjian *et al* (261)

LOW ENERGY ACCELERATOR AND RADIATION APPLICATIONS

- Effect of $^{12}\text{C}^{6+}$ ion beam irradiation on physiological characteristics of *Perilla*
..... XUE Lingui XU Junquan ZHANG Hong WU Zhenhua ZHAO Xu (267)
- Simulation of BSA design and beam characteristic for fast neutron radiography using a D-T neutron source
..... LIU Yang SHEN Fei YANG Yao YAN Yonghong YAN Yan *et al* (273)
- Environmental radioactivity survey in an abandoned uranium mine ZHOU Cheng ZHAO Fuxiang (278)
- Current status of research on hydrogen isotopes retention in tokamaks
..... ZHAO Liping WU Jing XIE Chunyi LUO Guangnan (283)

RADIOCHEMISTRY, RADIOPHARMACEUTICALS AND NUCLEAR MEDICINE

- Targeting Hela cancer cells with avidin-dendrimer XU Xiaoping ZHANG Yuanqing SHEN Yumei (293)

NUCLEAR ELECTRONICS AND INSTRUMENTATION

- Development of a wideband transient electric field sensor
..... ZHANG Xiaoming MENG Cui WEI Ming LIU Shanghe (299)
- Development of an X-ray fluorescence logging system
..... SHEN Fengjun GE Liangquan YANG Qiang ZHANG Qingxian GU Yi (304)
- Development of a low background system for radioactive gas measurement
..... XIE Feng JIANG Wengang HE Xiaobing LI Xuesong CHANG Yongfu (309)

NUCLEAR ENGINEERING

- Nuclear battery driven by external neutron source WANG Sanbing HE Chaohui (313)

INTERDISCIPLINARY STUDIES OF NUCLEAR PHYSICS

- In-situ* imaging of nanoscale ethanol film formation on mica surface under saturated vapor condition using VSPFM technique ...
..... ZHANG Donghua HU Jun (317)