



RCCSE 中国准核心学术期刊
《CAJ-CD规范》执行优秀期刊
全国高校实验室工作研究会会刊

QK1948815

ISSN 1672-4550
CN 51-1653/N
CODEN SKYJA9

实验科学与技术

Experiment Science and Technology

2019

5

第17卷 第5期
Vol.17 No.5



ISSN 1672-4550



9 771672 455191

万方数据

目次

·实验技术·

- 基于模拟元器件波形发生器的综合实验设计与实现苍岩,于蕾,乔玉龙(1)
- 基于Adams及ANSYS的BSC赛车转向系统优化设计.....韩小强,沈亚彬,马利,汪超(8)
- 访问控制列表在内外网隔离中的应用张奎,杨礼(13)
- 基于GPRS-DTU和组态王的远程仿真实验技术研究董磊,胡慧慧,冯兴田(17)
- 三容水箱液位模糊免疫自适应控制算法研究朱文豪,黄国辉,姜周曙(22)
- FSAE赛车空心半轴设计何维,赵有港(28)
- “教学-引导-创新”三位一体实践教学体系构建隗寒冰,贺少川(32)
- “双一流”建设中生物化学实验教学改革与探索张蕾(38)
- GIS专业课程的DEM专题实验教学探索吕秀琴(41)
- 虚拟仿真电阻式传感器设计王革思(47)

·实验教学·

- 冲击导致材料弹塑性激光干涉测量张岱宇,蒲传金,郝高宇,林谋金(51)
- 玻璃工艺综合实验内涵提升培养应用型人才的教学研究刘建安,张梅梅,杨雪娜,朱超峰(55)
- 竞赛驱动产学协同的软件工程课程教学改革研究吴磊,杨鹏,汪小平(58)
- 新工科背景下创新人才培养模式的探索与研究夏春琴,刘芄健(64)
- 基于等离子体射流的实验教学项目设计与实践张莹莹,张家良,王奇,李婷,邱宇,宋远红(68)
- 基于创新创业能力培养的微生物学实验教学体系构建与应用魏宝阳(72)

基于创新创业能力培养的微机控制类课程教学改革	洪连环, 方平, 肖洁 (77)
新工科理念下嵌入式系统实验教学的改革与探索	李磊, 邓洪波, 王云, 梁志明 (81)
扫描电镜的基本原理及应用	余凌竹, 鲁建 (85)
开放实验项目“中药制剂特征成分HPLC分析方法的建立”的设计	廖晓燕, 梁淑彩, 朱瑜超, 肖玉秀 (94)
霍尔效应及其副效应的深入研究	张晓旭, 王彤, 吴天安 (99)
卢瑟福背散射分析元素浓度深度分布的计算方法研究	陈秀莲, 张洁, 覃雪, 刘军 (102)
铜颗粒填充型铜-聚苯醚复合导电胶制备及性能研究	开媛, 周康, 吴宝华, 王守绪, 何雪梅 (108)

·实验仪器研制·

传热实验装置的研制和教学实践	程远贵, 余徽, 蒋寺蓉 (112)
一种简易拉索疲劳试验装置的试制与应用	耿铁锁, 谭岩斌, 张哲, 邱文亮 (116)

·人文社科实验·

基于电子表格和网络地图的重心法选址实验设计	祁玉青, 蒋南云, 倪卫红 (120)
研究型高校文科实验室现状与发展路径	邱晓幼, 秦天, 廖勇 (125)
文科化学演示实验教学探索	高明慧 (130)

·实验室建设与管理·

教学用二维运动平台控制系统设计	杨浩东, 王伟 (135)
基于微校园的机房信息查询设计与实现	刘群, 戚俊豪, 李坚 (140)
科研实验室大型精密仪器开放预约平台建设探索	刘洋, 艾婷, 张朝鹏 (143)
针对农业高等院校实验室管理的思考	纪薇, 李桂荣, 周璇, 王艳芳, 李芳芳, 高美英, 杨忠义, 李春琳 (148)
药生类实验室安全与环保措施探究	司晓棠, 程旺元, 马依莎, 余光辉, 张蕊, 赵平 (151)
信息化资源在大型仪器共享平台管理中的应用	万建, 李兵, 万翠红, 胡原, 秦丽玮, 阮君, 熊国梅 (156)
《实验科学与技术》2020年征订启事	本刊编辑部 (160)

Contents

· Experiment Technology ·

Design and Implementation of Comprehensive Experiment Based on Analog Component Waveform Generator	CANG Yan, YU Lei, and QIAO Yulong (1)
Optimization of a BSC Racing Car's Steering System Based on ADAMS and ANSYS	HAN Xiaoqiang, SHEN Yabin, MA Li, and WANG Chao (8)
Application of Access Control List in Internal and External Network Isolation	ZHANG Kui and YANG Li (13)
Research on Remote Simulation Experiment Technology Based on GPRS-DTU and KingView	DONG Lei, HU Huihui, and FENG Xingtian (17)
Study on the Fuzzy Immune Adaptive Control Algorithm for the Liquid Level of Three-tank	ZHU Wenhao, HUANG Guohui, and JIANG Zhoushu (22)
Design of Hollow Half Axle of FSAE Racing Car	HE Wei and ZHAO Yougang (28)
The Construction of Trinity Practical Teaching System of "Teaching-Guiding-Innovation" ...	WEI Hanbing and HE Shaochuan (32)
Research and Exploration of the Experimental Teaching of Biochemistry in the Construction of "Double First Class"	ZHANG Lei (38)
Exploration of Experimental Teaching of DEM in GIS Course	LÜ Xiuqin (41)
The Design of the Virtual Simulation Resistive Transducer	WANG Gesi (47)

· Experiment Teaching ·

Measurement on Impact-induced Elastic-plasticity by Laser Interferometer System	ZHANG Daiyu, PU Chuanjin, HAO Gaoyu, and LIN Moujin (51)
Teaching Research on Cultivating Applied Talents with the Connotation of Comprehensive Experiment of Glass Technology	LIU Jian'an, ZHANG Meimei, YANG Xuena, and ZHU Chaofeng (55)
Reform and Research of Software Engineering Course Design by Contest-Driven and Industry-University Collaboration	WU Lei, YANG Peng, and WANG Xiaoping (58)
Exploration and Research on Innovative Talent Training Mode Under the Background of New Engineering	XIA Chunqin and LIU Yuanjian (64)
Design and Practice of an Experimental Teaching Project Based on the Plasma Jet	ZHANG Yingying, ZHANG Jialiang, WANG Qi, LI Ting, QIU Yu, and SONG Yuanhong (68)
Construction and Application of Microbiology Experimental Teaching System Based on the Cultivation of Innovation and Entrepreneurship Ability	WEI Baoyang (72)
Teaching Reform of Microcomputer Control Course Based on the Cultivation of Innovation and Entrepreneurship Ability	HONG Lianhuan, FANG Ping, and XIAO Jie (77)

The Reform and Exploration of Embedded System Experimental Teaching Under the New Engineering Concept	LI Lei, DENG Hongbo, WANG Yun, and LIANG Zhiming (81)
The Fundamental Principles and Applications of Scanning Electron Microscopy	YU Lingzhu and LU Jian (85)
Design of Open Experiment Project ‘Establishment of HPLC Analysis Method for Characteristic Components of Traditional Chinese Medicine’	LIAO Xiaoyan, LIANG Shucai, ZHU Yuchao, and XIAO Yuxiu (94)
In-depth Study of Hall Effect and Its Side Effects	ZHANG Xiaoxu, WANG Tong, and WU Tianan (99)
Study on Calculation Method of Lutherford Backscattering Element Concentration and Depth Distribution Analysis	CHEN Xiulian, ZHANG Jie, QIN Xue, and LIU Jun (102)

· Experiment Equipments Research ·

Preparation and Properties of Cu-PPO Conductive Adhesive Filled with Copper Nanoparticle	KAI Yuan, ZHOU Kang, WU Baohua, WANG Shouxu, and HE Xuemei (108)
Development and Teaching Practice of Heat Transfer Experimental Device ...	CHENG Yuangui, YU Hui, and JIANG Sirong (112)
Trial Production and Application of A Simple Cable Fatigue Measurement	GENG Tiesuo, TAN Yanbin, ZHANG Zhe, and QIU Wenliang (116)
Study on the Improvement of Experiment Teaching of Gravity Center Location Based on Spreadsheet and Web Map	QI Yuqing, JIANG Nanyun, and NI Weihong (120)

· Humanities and Social Experiment ·

Study on the Improvement of Experiment Teaching of Gravity Center Location Based on Spreadsheet and Web Map	QI Yuqing, JIANG Nanyun, and NI Weihong (120)
Current Situation and Development Path of Liberal Arts Laboratory in Research Universities	QIU Xiaoyou, QIN Tian, and LIAO Yong (125)
Teaching Exploration on Demonstration Experiment of Liberal Art Chemistry	GAO Minghui (130)

· Construction and Management for Laboratories ·

Design of Two-Dimensional Motion Platform Control System for Teaching	YANG Haodong and WANG Wei (135)
Design and Implementation of a Computer Room Information Query Based on Micro-Campus	LIU Qun, QI Junhao, and LI Jian (140)
Construction and Exploration of an Opening Booking Platform for Large Sophisticated Instruments of Research Laboratory	LIU Yang, AI Ting, and ZHANG Zhaopeng (143)
Thinking on Laboratory Management of Agricultural Colleges and Universities	JI Wei, LI Guirong, ZHOU Xuan, WANG Yanfang, LI Fangfang, GAO Meiyong, YANG Zhongyi, and LI Chunlin (148)
Research on Safety and Environmental Protection Measures for Pharmaceutical and Biological Laboratories	SI Xiaotang, CHENG Wangyuan, MA Yisha, YU Guanghui, ZHANG Rui, and ZHAO Ping (151)
Application of Information Resources in Management of Large Instrument Sharing Platform	WAN Jian, LI Bing, WAN Cuihong, HU Yuan, QIN Liwei, RUAN Jun, and XIONG Guomei (156)

