

ISSN 1672-9242
CN 50-1170/X

装备环境工程

Equipment Environmental Engineering

中国科技核心期刊

第14卷 第9期 2017年9月

主办单位：中国兵器工业第五九研究所
国防科技工业自然环境试验研究中心



QK1728924



ISSN 1672-9242



09>

9 771672 924218 装备环境工程

目次 CONTENTS

环境适应性设计与分析 Design and Analysis of Environmental Adaptation

1 不同工况下飞机液冷车制冷换热系统PID控制的建模与仿真 Modeling and Simulation of PID Control for Refrigeration Heat Exchange System of Aircraft Liquid-cooling Carts in Different Working Conditions	李旭, 雷金果, 张永亮 LI Xu, LEI Jin-guo, ZHANG Yong-liang
6 纳米TiO ₂ 包覆微米Cr ₂ O ₃ 粒子的制备及表征研究 Preparation and Characterization of Micron Cr ₂ O ₃ Particles Coated by TiO ₂ Nanoparticles	刘海梅 LIU Hai-mei
10 带缝金属腔体内包含非线性组件的耦合效应分析 Electromagnetic Effects on Cavity with Slots Containing Nonlinear Components	罗佳伟, 王保成, 季嘉伟 LUO Jia-wei, WANG Bao-cheng, JI Jia-wei
16 基于改进灰色关联度的弹药航空适运性评价指标体系构建 Construction of Evaluation Index System about Ammunition Air Transportation Fitness Based on Improved Grey Relational Degree	颀正阳, 安红, 陈思杨 JIE Zheng-yang, AN Hong, CHEN Si-yang

环境试验与评价 Environmental Testing and Evaluation

22 某海岛环境下典型机载设备防护涂层耐老化性试验研究 Experimental Study on Aging Resistance of Protective Coatings for Typical Airborne Equipment in an Island Environment	刘成臣, 张洪彬, 赵连红, 金涛, 王浩伟 LIU Cheng-chen, ZHANG Hong-bin, ZHAO Lian-hong, JIN Tao, WANG Hao-wei
29 基于多因子影响的东南沿海地区服役涂层环境试验设计 Design of Environmental Testing of Organic Coating Using in the Southeastern Coastal Areas Based on Multi-effects Factors	徐安桃, 张振楠, 孙波, 张睿 XU An-tao, ZHANG Zhen-nan, SUN Bo, ZHANG Rui
33 原位生成Ni颗粒增韧纳米ZrB ₂ 基陶瓷的制备方法与微观结构研究 Preparation Method and Microstructure of In-situ Ni Particle Reinforced ZrB ₂ Based Ceramics	李斌, 韩森霖 LI Bin, HAN Sen-lin
39 大型气候环境实验室上部运输系统的方案设计 Schematic Design of Equipment Support System for Large Climatic Environmental Test Facility	张惠, 吴敬涛, 刘海燕, 李喜明 ZHANG Hui, WU Jing-tao, LIU Hai-yan, LI Xi-ming
43 基于标准分析军用飞机实验室淋雨试验参数设计 Analysis of Parameters Setting in Military Aircraft Laboratory Rain Test Based on Standards	张昭, 唐虎, 张亚娟 ZHANG Zhao, TANG Hu, ZHANG Ya-juan
48 高温下复合材料螺栓接头强度的试验研究 Experimental Study on Strength of Bolted Joint of Composites at Elevated Temperature	徐鲁兵, 张宏建, 吕文礼, 温卫东 XU Lu-bing, ZHANG Hong-jian, LYU Wen-li, WEN Wei-dong
53 垂直发射装置排气道极限承压性能分析 Limit Pressure Property of Vertical Launcher Exhaust Chimney	任克亮, 吴利民 REN Ke-liang, WU Li-min

环境效应与防护 Environment Effects and Protection

- 57 热带海洋大气环境下X70 管线钢的缝隙腐蚀行为研究
Crevice Corrosion Behaviors of X70 Pipeline Steel in Tropic Marine Atmosphere
刘泉兵, 陈法锦, 胡杰珍, 邓培昌, 王贵, 罗思维
LIU Quan-bing, CHEN Fa-jin, HU Jie-zhen, DENG Pei-chang, WANG Gui, LUO Si-wei
- 63 柴油加氢装置关键换热器管束腐蚀机理研究
Corrosion Mechanism of Key Heat Exchanger Tubes for Diesel Hydrogenation Unit
徐秀清, 刘进文, 来维亚
XU Xiu-qing, LIU Jin-wen, LAI Wei-ya
- 68 基于电化学噪声技术的碳钢大气腐蚀行为监测方法
Monitoring Method of Carbon Steel Atmosphere Corrosion Behavior Based on Electrochemical Noise Technology
胡欢欢, 邓培昌, 胡杰珍, 王贵, 黎祖欢
HU Huan-huan, DENG Pei-chang, HU Jie-zhen, WANG Gui, LI Zu-huan
- 73 船用钢板材料在淡水环境中初期腐蚀行为
Initial Corrosion Behaviors of Ship Steel Plate in Fresh Water Environment
郝张科, 陈志飏, 张东, 潘莹, 周学杰
HAO Zhang-ke, CHEN Zhi-biao, ZHANG Dong, PAN Ying, ZHOU Xue-jie
- 80 高效舱室空气净化可再生介孔吸附材料
High Efficient Renewable Micro/Mesoporous Adsorption Material for Cabin Air Decontamination
罗雯军, 邵飞, 林芃
LUO Wen-jun, SHAO Fei, LIN Peng

环境及其效应 Environment and Its Effect

- 85 高原环境对军用越野汽车的影响及对策研究
Influences of Plateau Environment on Military Off-road Vehicle and Countermeasures
许翔, 李玉兰, 刘刚, 周广猛, 董素荣, 刘瑞林
XU Xiang, LI Yu-lan, LIU Gang, ZHOU Guang-meng, DONG Su-rong, LIU Rui-lin
- 90 复杂气氛下痕量油雾的测量方法
Method for Measuring Trace Oil Mist in Complex Atmosphere
马长李, 刘聪, 马瑞萍
MA Chang-li, LIU Cong, MA Rui-ping
- 93 温度和氯离子浓度对30CrMnSiNiA 腐蚀速率的影响研究
Effects of Temperature and Chloride Ion Concentration on Corrosion Rate of 30CrMnSiNiA
游明锐, 金平, 谭晓明, 王德, 苏玉玲
YOU Ming-rui, JIN Ping, TAN Xiao-ming, WANG De, SU Yu-ling

装备通用质量特性及寿命评估
General Quality Characteristics and Life Assessment of Equipment

- 99 车装焊复合加工装备的服役可靠性评估
Operational Reliability Evaluation of Turning-assembly-welding Composite Machining Equipment
钟珂珂, 付洋, 金永乔, 高通
ZHONG Ke-ke, FU Yang, JIN Yong-qiao, GAO Tong
- 104 高某气井加重杆屈曲失稳分析
Analysis of Buckling Instability of Sinkers Bar in Gas Well
蔡克, 路彩虹, 马小芳, 李小龙, 宋恩鹏
CAI Ke, LU Cai-hong, MA Xiao-fang, LI Xiao-long, SONG En-peng

广告索引

- 封 底 国防科技工业自然环境试验研究中心
封 二 重庆银河试验仪器有限公司
目次后 第五届军品防护与包装发展论坛暨成果展示会议通知
封 三 《装备环境工程》杂志理事会名单

期刊基本参数:CN 50-1170/X*1983*m*A4*107*zh*P*¥45.00*5000*21*2017-09