

环境技术

ENVIRONMENTAL TECHNOLOGY (1983年创刊)

ISSN 1004-7204

CN 44-1325/X

主管单位：中国机械工业集团有限公司

主办单位：中国电器科学研究院有限公司

邮发代号：46-656

电工电子产品环境适应性及可靠性领域的权威刊物

2016.5



助力军民融合深度发展

XCET
ELECTRONIC
第三方检测平台



环境可靠性 / 元器件检测筛选 / 电磁兼容 / 软件测评 / 计量校准

西安西测电子技术服务有限公司

电话：029-88607190

ISSN 1004-7204



9 771004 720157



- 中国核心期刊（遴选）数据库源期刊
- 中国学术期刊综合评价数据库源期刊
- 中文科技期刊数据库源期刊
- 中国期刊网源期刊
- 中国学术期刊（光盘版）源期刊
- 中国万方数据-数字化期刊群源期刊

目次 Contents

2016.10 第5期 2016.10 No.5

行业动态 TRADE NEWS

- 01 新闻资讯 P01
- 02 标准动态 P03
- 03 会议信息 P04

环境试验 ENVIRONMENTAL TESTING

- 04 用温湿度仪测定复合材料包装容器透湿度
Determination of Water Vapor Transmission of Packaging Container for
Composite Material Using A Temperature and Humidity Instrumente 罗兰
LUO Lan P06
- 05 7B04 铝合金在 NaCl 沉积与 SO₂ 环境下的大气腐蚀行为
Atmospheric Corrosion Behavior of 7B04 Aluminum Alloy in the
Presence of NaCl and SO₂ 高蒙, 孙志华, 刘明, 闫巍, 汤智慧
GAO Meng, SUN Zhi-hua, LIU Ming, YAN Wei, TANG Zhi-hui P09
- 06 夹具特性对振动控制精度影响效应分析
Analysis of Effect of Fixture Characteristics on Vibration Control Accuracy
朱子宏, 沈志强, 高文硕, 邵丽娟
ZHU Zi-hong, SHEN Zhi-qiang, GAO Wen-shuo, SHAO Li-juan P14
- 07 印刷电路组件吸湿性尘粒人工模拟试验中关键因素的控制
Controlling of Key Factors in Hygroscopic Dust Artificial Simulation
Test for PCBA 刘勇志, 詹扬, 钟浩, 晋晓峰
LIU Yong-zhi, ZHAN Yang, ZHONG Hao, JIN Xiao-feng P19
- 08 基于整车道路强化腐蚀试验的工况探讨
Discussion on Operating Condition of Vehicle Accelerated Corrosion
Road Test 蔡元平, 孙卓
CAI Yuan-ping, SUN Zhuo P23
- 09 军民两用机载设备耐久振动试验的对比方法
A Comparison Method for Endurance Vibration Test Applicable to
Military and Civil Airborne Equipment 林舒, 杨峻, 焦玉亮, 吴狄
LIN Shu, YANG Jun, JIAO Yu-liang, WU Di P28
- 10 叠加振动试验分析与应用
Analysis and Application on Superposition Vibration Test
王志刚, 龚天宇, 张毅
WANG Zhi-gang, GONG Tian-yu, ZHANG Yi P33
- 11 航空聚氨酯涂层老化分析
Research on Aging Mechanism of Polyurethane Topcoat Applied in
Aircraft 张丹峰, 王玉刚, 谭晓明
ZHANG Dan-feng, WANG Yu-gang, TAN Xiao-ming P38
- 12 LED 七彩莲花灯变色同步机制的抗电磁炉低频传导干扰实例
Case Analysis of Suppressing Conducted Interference From Induction
Cooker for Lotus Lamp's Color-change Synchronization 赖淋香, 何越
LAI Lin-xiang, HE Yue P41

环境适应性和可靠性 ENVIRONMENTAL ADAPTABILITY & RELIABILITY

- 13 基于仿真分析的复杂电子装备测试性预计技术研究
Research on Testability Prediction Technique for Complex Electronic
Equipments Based on Simulation Analysis 马晓艳
MA Xiao-yan P44



- 14 雷达关键部件对西北地区典型环境适应性的综合仿真研究
Integrated Simulation of Radar's Key Components to Typical Environment
Adaptability in Northwest China 李 静, 马志宏, 胡锐锋, 李宁霞
LI Jing, MA Zhi-hong, HU Rui-feng, LI Ning-xia P50
- 15 从 PCB 布局分析 UPS 小机的环境适应性设计
Analysis on the Environmental Adaptability Design of UPS Based on the
PCB Layout 余建宏
YU Jian-hong P54
- 16 一种高压油管焊接质量评价方法
A Method of Welding Quality Evaluation for High Pressure Oil Pipe 吴 焕, 赵润生
WU Huan, ZHAO Run-sheng P58
- 17 电子产品环境应力筛选的技术及实施办法
Technique and Implementation of Environment Stress Screening for
Electronic Products 肖 伟, 徐 斌
XIAO Wei, XU Bin P62
- 18 电子装备测试性试验与可靠性试验之间的关系分析
Analysis of the Relationship Between Testability Test and Reliability
Test of Electronic Equipment 夏 欣, 胡 泊
XIA Xin, HU Bo P66
- 19 焊点热疲劳失效原因分析
Cause Analysis of Thermal Fatigue Failure of Welding Spot 张 伟, 王君兆, 邓胜良, 马 聪
ZHANG Wei, WANG Jun-zhao, DENG Sheng-liang, MA Cong P71
- 20 基于 GJB 150 舰船冲击测量中零漂问题分析
Analysis on Zero Drift Problem in Ship Shock Measurement Based on GJB
150 李晓强, 李建刚, 王继红, 唐海波
LI Xiao-qiang, LI Jian-gang, WANG Ji-hong, TANG Hai-bo P75
- 21 绝缘结构综合应力加速寿命试验方法研究
Research on Accelerated Life Test for Insulation System Based on
Multi-stress Accelerated Model 郭彬乾, 黄慧洁, 管兆杰
GUO Bin-qian, HUANG Hui-jie, GUAN Zhao-jie P79
- 22 一种基于分布式结构的半实物仿真测试环境设计
A Design of Half-physical Simulation Environment Based on Distributed
Architecture 李兆阳, 陈泉根
LI Zhao-yang, CHEN Quan-gen P82
- 23 新版资质认定评审准则对轨道交通类检验机构的影响
Impact of New Accreditation Criteria for Inspection and Test
Institution of Rail Transit 韩 彬, 陈兴慧, 潘君硕
HAN Bin, CHEN Xing-hui, PAN Jun-shuo P86
- 24 北斗导航终端设备可靠性加速试验与快速评价 技术研究
Research on Reliability Accelerated Test and Rapid Evaluation
Technology of Beidou Navigation Terminal Equipment 沈炉明, 高 军, 文 武
SHEN Lu-ming, GAO Jun, WEN Wu P90
- 25 探索信息化装备一体化保障发展之路
The Exploration on the Development of Integrated Informational Weapon
Equipment Support 胡 斌, 徐 康
HU Bin, XU Kang P96

技术专栏 TECHNICAL COLUMN

- 26 战术通信网络故障模式研究
Research on Failure Mode of Tactical Communication Network
郑志国, 张金福, 徐兴同
ZHENG Zhi-guo, ZHANG Jin-fu, XU Xing-tong p99
- 27 碳纤维增强复合材料的环境适应性研究进展
Environmental Durability of Carbon Fiber Reinforced Polymer/Plastic:
A Recent Literature Review of Theories and Researches Development
潘 峤, 韩保红, 汤智慧, 孙志华, 骆 晨, 高 蒙, 高 建
PAN Qiao, HAN Bao-hong, TANG Zhi-hui, SUN Zhi-hua, LUO Chen, GAO Meng, GAO Jian P102
- 28 高分子材料光老化研究方法综述
Progress in Study of Polymer Light Aging Behaviors
李晓茜, 钟 浩
LI Xiao-qian, ZHONG Hao P107
- 29 南海海洋环境下关键电器设备腐蚀环境净化技术研究
Research on Corrosion environment Purification Technology on the
Electrical Equipment in the South Marine Environment
阮红梅, 黄建业, 陈 川, 黄海军, 王 俊, 揭敢新
RUAN Hong-mei, HUANG Jian-ye, CHEN Chuan, HUANG Hai-jun, WANG Jun, JIE Gan-xin P110
- 30 智能家电的低待机功耗研究
Research on Low Standby Power of Smart Appliances
蔡永华, 徐哲淳, 汪 洋
CAI Yong-hua, XU Zhe-zhun, WANG Yang P114
- 31 轮胎低温耐久性能试验台架研究
Research on the Test Bench of Low Temperature Durability Performance
for Tire
武文超, 周 伟, 曹 勇, 濮龙锋
WU Wen-chao, ZHOU Wei, CAO Yong, PU Long-feng P119

环境试验设备 ENVIRONMENTAL TEST EQUIPMENT

- 32 斯特林制冷机可靠性实验平台的建立
Development of Reliability Test System for Stirling Cryocooler
马学焕, 王 昆, 张宗峰, 陈根重, 赵 帅, 张爱红
MA Xue-huan, WANG Kun, ZHANG Zong-feng, CHEN Gen-zhong, ZHAO Shuai, ZHANG Ai-hong P124
- 33 基于 LabVIEW 设计的热延伸试验机
Design of Hot Set Based on LabVIEW
武 政, 王 鑫, 吴福娣, 郭 慧
WU Zheng, WANG Xin, WU Fu-di, GUO Hui P128
- 34 基于 LabVIEW 的自动配料控制系统设计
Design of Automatic Control System Based on LabVIEW
邵伟恒, 邹 伟
SHAO Wei-heng, ZOU Wei P132
- 35 湿热试验设备改造实践研究
Practice Research on Water Treatment Transformation of Thermal-
humidity Test Equipment
董 杰
DONG Jie P136
- 36 面向大型科学工程协同工作的信息推荐
Information Recommendation on the Collaborative Work of Key
Scientific Engineering
张鼎霖, 成 勋, 赵 强
ZHANG Ding-Lin, CHENG Xun, ZHAO Qiang P140

标准应用与解读 STANDARD APPLICATION AND INTERPRETATION

- 37 HB 6783、GB/T 5170 在温湿度试验箱性能指标验收中的应用
Application of HB 6783 and GB/T 5170 in the Performance Acceptance
for Temperature and Humidity Test Chamber
李宝晗
LI Bao-han P145

GWS

广州五所

ascott
testing corrosion resistance to the limitTHERMOTRON
热 测

(企业排列不分先后)