



ISSN 0577-6686
CODEN CHHKA2

机械工程学报[®]

JOURNAL OF MECHANICAL ENGINEERING



CMES 中国机械工程学会主办

半月刊 | 16 / 2012
第 48 卷

ISSN 0577-6686



9 770577 668125

万方数据

机械工程学报

JIXIE GONGCHENG XUEBAO

2012年第48卷第16期 8月20日出版

目次

仪器科学与技术

- 基于圆和非圆复合轨迹的三轴数控装备几何运动误差检测新方法.....杜正春 杨帆(1)
改进的非线性调频脉冲压缩方法在空气耦合超声检测中的应用.....魏东 周正干(8)
基于非轴对称激励的管道裂纹时反导波检测研究.....周进节 何存富 郑阳等(14)

材料科学与工程

- 聚合物熔体微尺度剪切黏度测量方法与黏度模型.....王敏杰 田慧卿 赵丹阳(21)
镁合金板带双辊连续铸轧试验研究.....谭湘夫 毛大恒 蔡安辉等(30)
利用阻尼材料改善驾驶室声学特性的研究.....张志飞 倪新帅 徐中明等(36)
点阵热源加热板料成形技术研究.....王会廷 沈晓辉 曹杰等(41)
含固有缺陷复合材料有效弹性性能预报.....付云伟 刘协权 倪新华等(46)
阻流块对薄壁空心铝型材挤压过程材料流速的影响.....喻俊荃 赵国群 张存生等(52)
基于预偏移的激光拼焊板焊缝优化补偿方法.....刘玉山 徐安平 富大伟等(59)
搅拌摩擦焊接加筋板轴压稳定性研究.....邵青 何宇廷 张腾等(64)
时效温度对马氏体不锈钢激光焊接接头组织和性能的影响.....刘海园 郜晓溪 王渊博等(69)
铝合金整体壁板时效成形模具型面构造.....甘忠 熊仕鹏 朱加赞等(74)

运载工程

- 电动城市公交车制动能量回收评价方法.....仇斌 陈金世(80)
车轮滚动接触疲劳与磨损耦合关系数值模拟.....丁军君 孙树磊 李蒂等(86)
自动变速器换挡过程惯性相发动机协调控制.....万国强 黄英 张付军等(91)

可再生能源与工程热物理

- 含卡瓦作业损伤钻柱的适用性评价研究.....祝效华 李金和 童华(97)
铜铝微通道热沉的三维数值结构优化.....李骥 史忠山(102)
锅炉碳化硅质卫燃带上灰渣扩散行为.....何金桥 陈冬林(110)

交叉与前沿

- 圆柱形谐振管内非线性驻波的有限体积计算方法.....宁方立 张文治 董梁(116)
基于液晶引流效应的全新微流体驱动方式.....刘春波 田勇 辻知宏等(122)
轴流压气机叶顶端区流场周向传播特征及其预测.....耿少娟 张小玉 聂超群等(130)
几何尺寸对矩形微通道液体流动和传热性能的影响.....刘赵焱 逢燕 申峰(139)
绕水翼空化流场的数值模拟与试验研究.....尹必行 康灿(146)
错位六弯叶浆搅拌假塑性流体的洞穴变化.....栾德玉 周慎杰 陈颂英(152)
基于有效工作寿命的多变量动态均衡设计及其度量方法研究.....高一聪 冯毅雄 谭建荣等(158)
基于随机 Petri 网的复杂机械设备可用度分析方法研究.....谢楠 李爱平 薛伟等(167)
基于模糊贝叶斯网络的多态系统可靠性分析及在液压系统中的应用.....陈东宁 姚成玉(175)
磁悬浮高速转子基于位移刚度力超前前馈补偿的高精度自动平衡方法.....魏彤 向岷(184)

《CHINESE JOURNAL OF MECHANICAL ENGINEERING》(中国机械工程学报)

2012年第25卷第5期目次、摘要.....(192)

《机械工程学报》被EI收录论文目次(2011年第23、24期).....(13, 145)

JOURNAL OF MECHANICAL ENGINEERING

Vol.48 No.16 August 2012

CONTENTS

New Measuring Method for Motion Accuracy of 3-axis Numerical Control Equipments Based on Composite Trajectory of Circle and Non-circle	DU Zhengchun YANG Fan (1)
Application of Non-linear Frequency-modulation Based Pulse Compression in Air-coupled Ultrasonic Testing	WEI Dong ZHOU Zhenggan (8)
Time Reversal Guided Waves for Inspecting Crack in Pipeline by Non-axisymmetric Excitation	ZHOU Jinjie HE Cunfu ZHENG Yang et al (14)
Micro-scale Shear Viscosity Testing Approach and Viscosity Model of Polymer Melts	WANG Minjie TIAN Huiqing ZHAO Danyang (21)
Experimental Study on Twin-roll Casting Magnesium Alloy Strip	TAN Xiangfu MAO Daheng CAI Anhui et al (30)
Research on Improvement of Cab Acoustic Characteristics Using Damping Material	ZHANG Zhifei NI Xinshuai XU Zhongming et al (36)
Research on Sheet Warm Forming Heating with Matrix Dot Power	WANG Huiting SHEN Xiaohui CAO Jie et al (41)
Effective Elastic Property Prediction of Ceramic Composite with Inherent Defect	FU Yunwei LIU Xiequan NI Xinhua et al (46)
Effect of Baffle-block on Material Flow Velocity during Thin-walled Hollow Aluminum Profile Extrusion	YU Junquan ZHAO Guoqun ZHANG Cunsheng et al (52)
Pre-offset-based Approach to Optimizing and Compensating Weld-line of Tailor-welded Blanks	LIU Yushan XU Anping FU Dawei et al (59)
Study on Stability Performance of Friction Stir Welded Stiffened Panel under Uniaxial Compress Load	SHAO Qing HE Yuting ZHANG Teng et al (64)
Microstructure and Mechanical Properties of Stainless Maraging Steel Laser Weldments after Aging at Different Temperatures	LIU Haiyuan GAO Xiaoxi WANG Yuanbo et al (69)
Structure of Tool Surface for Age Forming of Integral Panel of Aluminum Alloy	GAN Zhong XIONG Shipeng ZHU Jiazan et al (74)
Evaluation Method of Regenerative Braking for Electric City Bus	QIU Bin CHEN Quanshi (80)
Simulation of Coupling Relationship between Wheel Rolling Contact Fatigue and Wear	DING Junjun SUN Shulei LI Fu et al (86)

(下转封三)

(上接第 II 页)

- Coordinated Engine Control for Automatic Transmission during the Inertia Phase of Upshifting
..... WAN Guoqiang HUANG Ying ZHANG Fujun et al (91)
- Study on Serviceability Evaluation of Drill-string with Slip Bite-mark
..... ZHU Xiaohua LI Jinhe TONG Hua (97)
- 3D Numerical Geometric Optimization of Copper and Aluminum Microchannel Heat Sink
..... LI Ji SHI Zhongshan (102)
- Diffusion Behavior during Coal Ash Slagging on the SiC-based Refractory Liner in Utility Boiler
..... HE Jinqiao CHEN Donglin (110)
- Finite Volume Algorithm for Nonlinear Standing Waves in Cylindrical Acoustic Resonators
..... NING Fangli ZHANG Wenzhi DONG Liang (116)
- New Microfluidic Driving Method Based on Liquid Crystalline Backflow Effect
..... LIU Chunbo TIAN Yong TSUJI Tomohiro et al (122)
- Circumferential Propagation Characteristics of Flow Field in Rotor Tip Region and Its Prediction
as Stall Precursor..... GENG Shaojuan ZHANG Xiaoyu NIE Chaoqun et al (130)
- Effects of Geometry on Liquid Flow and Heat Transfer in Microchannels
..... LIU Zhaomiao PANG Yan SHEN Feng (139)
- Numerical and Experimental Study of Cavitating Flows around Hydrofoils
..... YIN Bixing KANG Can (146)
- Cavern Development of Pseudoplastic Fluids Stirred by Impeller of Perturbed Six-bent-bladed Turbine
..... LUAN Deyu ZHOU Shenjie CHEN Songying (152)
- Research on Multi-variables Dynamic Equilibrium Design and Measurement Method
Based on Effective Working-age GAO Yicong FENG Yixiong TAN Jianrong et al (158)
- Modeling and Analysis of Complex Equipment Availability Based on Stochastic Petri Nets
..... XIE Nan LI Aiping XUE Wei et al (167)
- Reliability Analysis of Multi-state System Based on Fuzzy Bayesian
Networks and Application in Hydraulic System..... CHEN Dongning YAO Chengyu (175)
- Autobalancing for Magnetically Suspended High-speed Rotors Based on Lead Feedforward
Compensation for Displacement Stiffness Force WEI Tong XIANG Min (184)