

机械工程学报

JIXIE GONGCHENG XUEBAO

2011年第47卷第2期 1月20日出版

目次

仪器科学与技术

- 基于尺寸变动度的装配序列偏差传递模型及质量评价方法.....周思杭 刘振宇 谭建荣 (1)
固体火箭包覆层脱粘调制红外热波检测法的数值模拟.....郭兴旺 李苒笙 丁蒙蒙 (9)
基于视觉复杂环境下车辆行驶轨迹预测方法.....张润生 黄小云 刘晶等 (16)

材料科学与工程

- 失效学的哲学理念及其应用探讨.....钟群鹏 张 崢 傅国如等 (25)
基于背景网格技术的冲压成形仿真工具自动装配算法.....范 蓉 郑国君 胡 平 (31)
双剪统一弹塑性有限差分法在金属结构中的应用.....马宗源 廖红建 李杭州 (36)
冷轧薄板中浪板形缺陷的屈曲及后屈曲理论与轧制试验研究.....戴杰涛 张清东 (44)
基于临界曲面的改进 Paris 定律球轴承疲劳寿命预测方法.....徐 东 徐永成 陈 循等 (51)
Nb 微合金低碳钢表层超细晶中厚板的研制.....杜海军 栗 春 赵德文等 (58)
金属橡胶材料疲劳损伤性能研究.....王尤颜 白鸿柏 侯军芳 (65)
功能梯度材料飞轮转子优化设计.....闫晓磊 钟志华 查云飞等 (72)
焊接工艺参数对 5383 铝合金搅拌摩擦焊接头耐腐蚀性的影响.....张利国 姬书得 邹爱丽等 (80)
热处理对 2205 双相不锈钢焊接接头力学性能的影响.....邹德宁 韩 英 李 姝等 (85)
黄壤土砂铸型与铸件界面烧结层的力学行为.....张 锐 骆祎岚 殷 梁等 (90)

运载工程

- 高硬度多微孔小型零件激光表面精密熔覆钴基合金涂层提高耐冲蚀性能研究.....石 岩 张 宏 刘双宇等 (95)
基于协同优化和多目标遗传算法的车身结构多学科优化设计.....王 平 郑松林 吴光强 (102)
低附着路面条件的 EPS 控制策略.....赵林峰 陈无畏 秦炜华等 (109)
车轮型面数值优化技术.....张 剑 金学松 孙丽萍等 (115)
内燃机缸套失圆对缸内机油消耗的影响.....王 虎 孙 军 赵小勇等 (123)
独立悬架汽车转向系间隙与干摩擦对其 Hopf 分岔特性的影响.....王 威 宋玉玲 李瑰贤 (130)
ECAS 客车车身高度的实时跟踪.....徐 兴 陈照章 全 力等 (136)

可再生能源与工程热物理

- 蜂窝密封流动特性的数值研究和泄漏量计算公式的构造.....李志刚 李 军 丰镇平 (142)
AHU 送风温度变化特性的分形关联维数分析.....杨学宾 晋欣桥 杜志敏等 (149)
空心杆泵上循环热水加热降粘的数值研究.....史维秀 李惟毅 潘利生等 (154)

交叉与前沿

- 刚柔混合非线性转子系统的动态应力可靠性及可靠性灵敏度研究.....张义民 朱丽莎 唐 乐等 (159)
确定应力模型在离心压缩级级流场模拟的应用.....高丽敏 李晓军 高 杰等 (166)
伺服电动机直接驱动定量泵液压系统在精密注塑中的应用及其控制策略.....彭勇刚 韦 巍 (173)
驱动大惯量低刚度负载的推力矢量控制电动伺服机构的 μ 综合鲁棒控制.....陆 豪 李运华 田胜利等 (180)
浸没式光刻机浸没流场的仿真与试验.....傅 新 赵金余 陈 晖等 (189)

- 国家自然科学基金委员会资助项目优秀成果介绍..... (195)
《机械工程学报》被 EI 收录论文目次(2010 年第 9、10 期)..... (64, 179)

JOURNAL OF MECHANICAL ENGINEERING

Vol.47 No.2 January 2011

CONTENTS

- Deviation Propagation Model of Assembly Sequence and Quality Evaluation Approach Based on Degree of Dimensional Variation.....ZHOU Sihang LIU Zhenyu TAN Jianrong (1)
- Simulating Modulated Thermography of Cladding Debond in Solid Rockets
.....GUO Xingwang LI Ransheng DING Mengmeng (9)
- Image Vehicle Motion Trajectory Prediction Method Under Complex Environment
.....ZHANG Runsheng HUANG Xiaoyun LIU Jing et al (16)
- The Philosophy and Application of Failure Study
.....ZHONG Qunpeng ZHANG Zheng FU Guoru et al (25)
- Automatic Tool Assembly Algorithm of Sheet Metal Forming Based on the Background Mesh Projection.....FAN Rong ZHENG Guojun HU Ping (31)
- Application of Twin Shear Unified Elastoplastic Finite Difference Method in Metallic Structures
.....MA Zongyuan LIAO Hongjian LI Hangzhou (36)
- Analysis and Experiment on Central Buckling and Post Buckling of Thin Cold-rolled Sheet
.....DAI Jietao ZHANG Qingdong (44)
- Fatigue Life Prediction of Ball Bearings by Modified Paris Law Based on Critical Curved Surface
.....XU Dong XU Yongcheng CHEN Xun et al (51)
- Development of Nb Microalloyed Low Carbon Steel Plate with Ultra-fine Grains in Surface Layer
.....DU Haijun LI Chun ZHAO Dewen et al (58)
- Fatigue Damage Performance of Metal Rubber Material
.....WANG Youyan BAI Hongbai HOU Junfang (65)
- Optimum Design of Flywheel Rotor Made of Functionally Graded Materials
.....YAN Xiaolei ZHONG Zhihua ZHA Yunfei et al (72)
- Effect of Welding Parameters on Corrosion Resistance of 5383 Al Alloy Friction Stir Welding Joint.....ZHANG Liguo JI Shude ZOU Aili et al (80)
- Influence of Heat Treatment on Mechanical Properties of 2205 Duplex Stainless Steel Welds
.....ZOU Dening HAN Ying LI Jiao et al (85)
- Mechanical Property of the Sintering Layer at the Interface of Natural Yellow Clay-bonded Sand Mould and Iron Casting
.....ZHANG Rui LUO Yilan YIN Liang et al (90)
- Improving Resistance of Cobalt-based Alloy Coating formed Laser Fine Cladding on High-hardness and Microporous Small Parts
.....SHI Yan ZHANG Hong LIU Shuangyu et al (95)
- Multidisciplinary Design Optimization of Vehicle Body Structure Based on Collaborative Optimization and Multi-objective Genetic Algorithm
.....WANG Ping ZHENG Songlin WU Guangqiang (102)

(上接第 II 页)

- Electric Power Steering on Low Friction Coefficient Road
.....ZHAO Linfeng CHEN Wuwei QIN Weihua et al (109)
- Wheel Profile Numefical Optimization Technique
.....ZHANG Jian JIN Xuesong SUN Liping et al (115)
- Effect of Non-circular Cylinder Bore on Oil Consumption in Cylinder of the Engine
..... WANG Hu SUN Jun ZHAO Xiaoyong et al (123)
- Influence of Independent Suspension Automotive Steering Clearance and Coulomb
Friction on Hopf Bifurcation Characteristic
..... WANG Wei SONG Yuling LI Guixian (130)
- Real-time Tracking of Ride Height for Bus with Electronically Controlled Air Suspension
.....XU Xing CHEN Zhaozhang QUAN Li et al (136)
- Numerical Investigation on Discharge Behavior and Predication Formula Establishment of
Leakage Flow Rate of Honeycomb Seal
.....LI Zhigang LI Jun FENG Zhenping (142)
- Fractal Correlation Dimension Analysis on the Variation of AHU Supply-air-temperature
.....YANG Xuebin JIN Xinqiao DU Zhimin et al (149)
- Numerical Study on Heating and Viscosity Reduction of Circulating Hot Water in Hollow
Rod Top PumSHI Weixiu LI Weiyi PAN Lisheng et al (154)
- Dynamical Stress Reliability and Sensitivity Analysis of Nonlinear Rotor System with
Rigid-flexible Structure.....ZHANG Yimin ZHU Lisha TANG Le et al (159)
- Application of Deterministic Stresses Model in Simulation of Centrifugal Compressor Stage
Flow FieldGAO Limin LI Xiaojun GAO Jie et al (166)
- Application and Control Strategy of Servo Motor Driven Constant Pump Hydraulic System in
Precision Injection Molding..... PENG Yonggang WEI Wei (173)
- μ Synthesis Robust Control of Thrust Vector Control Electric Servo Mechanism
Driving Large Inertia and Low Stiffness Load
.....LU Hao LI Yunhua TIAN Shengli et al (180)
- Simulation and Experimental Investigation of Immersion Flow Field in Immersion Lithography
..... FU Xin ZHAO Jinyu CHEN Hui et al (189)