

# 机械工程学报

JIXIE GONGCHENG XUEBAO

2010年第46卷第24期 12月20日出版

## 目 次

### ××× 塑性成形专栏 ×××

环件径轴向轧制毛坯尺寸设计方法	郭良刚 杨合 金坚诚 (1)
汽车用合金化镀锌深冲钢板动态变形行为试验研究及仿真分析	陈贵江 康永林 朱国明等 (10)
大型核电低压转子锻件倒棱新工艺的模拟	刘鑫 钟约先 马庆贤等 (16)
楔横轧零件滚动半径变化规律的试验研究	王宝雨 胡发国 胡福生等 (22)
n-SiC <sub>p</sub> /AZ61镁基复合材料的半固态压缩变形行为	胡志 闫洪 刘少平等 (28)
薄壁空心铝型材挤压过程数值模拟及模具优化	陈浩 赵国群 张存生等 (34)

## 仪器科学与技术

基于 UKF 方法的永磁同步平面电动机位移测量	高阵雨 胡金春 朱煜等 (40)
基于稀疏信号分解的自适应时变滤波器及其在齿轮故障诊断中的应用	彭富强 于德介 罗洁思等 (46)
用于壁面切应力测量的微传感器设计	吕海峰 姜澄宇 邓进军等 (54)
基于多传感器信息融合双进双出磨煤机料位检测	段勇 崔宝侠 徐冰等 (61)

## 运载工程

车辆动力传动系统弯扭耦合振动模型的建立及复模态分析	刘辉 项昌乐 孙恬恬 (67)
黏滑振动理论及其在铁路机车中的应用	姚远 张红军 罗贊等 (75)
轿车电磁制动与摩擦制动集成系统的模糊控制	何仁 刘存香 李楠 (83)
基于高斯过程的地铁车辆轮对磨耗建模及其维修策略优化	许宏员 华王凌等 (88)
车身板件振动声学贡献分析与优化	赵静 周鑑 梁映珍等 (96)

## 可再生能源与工程热物理

相变传热微通道技术的研究进展	王辉 汤勇 余建军 (101)
DOC 辅助 DPF 再生方法研究	张德满 李舜酩 李凯等 (107)
基于最大风能利用系数的风力机翼型设计	程江涛 陈进 沈文忠等 (111)
新型风旋增压器的数值模拟及特性分析	周红秀 白丹丹 杨立波 (118)
氢气/柴油发动机燃油雾化特性的研究	宋云超 宁智 姜大海等 (123)

## 交叉与前沿

### 流体传动与控制

核主泵用动静压波度机械密封机理	王晓雪 刘莹 李京浩等 (131)
先导式纯水溢流阀仿真与试验研究	弓永军 王祖温 徐杰等 (136)
内外不等锥度的软质锥壳单片阀体压电泵的原理与试验研究	张建辉 郭宗信 黄毅等 (143)
电液位置速度复合伺服系统控制策略	柏艳红 权龙 (150)

### 可靠性工程

综合应力加速寿命模型验证方法的研究	钱萍 陈文华 马子魁等 (156)
考虑强度退化的零件及系统可靠性分析	高鹏 谢里阳 (162)
过程工业设备维修智能决策系统的开发与应用	王庆锋 杨剑锋 刘文彬等 (168)
国家自然科学基金委员会资助项目优秀成果介绍	(178)

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

2010年第23卷第6期目次、摘要	(182)
《机械工程学报》2010年度1~24期总目次	(186)
《机械工程学报》被 EI 收录论文目次(2010年第7、8期)	(74, 161)

# JOURNAL OF MECHANICAL ENGINEERING

Vol.46 No.24 December 2010

## CONTENTS

Design Method of Blank Sizes for Radial-axial Ring Rolling .....	GUO Lianggang YANG He JIN Jiancheng (1)
Dynamic Deformation Behavior Experiments of Alloy Galvanized Deep Drawing Steel Sheet for Automobile and Simulation .....	CHEN Guijiang KANG Yonglin ZHU Guoming et al (10)
Simulation on New Chamfering Process of Nuclear Turbine Low-pressure Rotor Forging .....	LIU Xin ZHONG Yuexian MA Qingxian et al (16)
Experimental Research on Rolling Radius of Formed Part for Cross Wedge Rolling .....	WANG Baoyu HU Faguo HU Fusheng et al (22)
Compression Deformation Behavior of Semisolid n-SiCP/AZ61 Magnesium Matrix Composites .....	HU Zhi YAN Hong LIU Shaoping et al (28)
Numerical Simulation of Extrusion Process and Die Structure Optimization for a Hollow Aluminum Profile with Thin Wall .....	CHEN Hao ZHAO Guoqun ZHANG Cunsheng et al (34)
Permanent-magnet Synchronous Planar Motor Displacement Measurement Based on UKF Method .....	GAO Zhenyu HU Jinchun ZHU Yu et al (40)
MSCSSD-based Adaptive Time-varying Filter and Its Application to Gearbox Fault Diagnosis .....	PENG Fuqiang YU Dejie LUO Jiesi et al (46)
Design of Micro Sensor for Wall Shear Stress Measurement .....	LÜ Haifeng JIANG Chengyu DENG Jinjun et al (54)
Material Level Detection of Double-in Double-out Coal Mill Based on Multi-sensor Fusion .....	DUAN Yong CUI Baoxia XU Bing et al (61)
Construction of Bending-torsional Coupled Vibration Model and Complex Modal Analysis of the Vehicle Powertrain .....	LIU Hui XIANG Changle SUN Tiantian (67)
Theory of Stick-slip Vibration and Its Application in Locomotive .....	YAO Yuan ZHANG Hongjun LUO Yun et al (75)
Fuzzy Control of the Integrated System of Electromagnetic Brake and Friction Brake of Car .....	HE Ren LIU Cunxiang LI Nan (83)
Modeling of Metro Wheel Wear and Optimization of the Wheel Re-profiling Strategy Based on Gaussian Processes .....	XU Hong YUAN Hua WANG Ling et al (88)
Vehicle Body Panel Acoustic Contribution Analysis and Optimization .....	ZHAO Jing ZHOU Hong LIANG Yingzhen et al (96)
Recent Advances of the Phase Change Micro-channel Cooling Structure .....	WANG Hui TANG Yong YU Jianjun (101)
Study on DOC Auxiliary DPF Regeneration Method .....	ZHANG Deman LI Shunming LI Kai et al (107)
Design of Wind Turbine Airfoils Based on Maximum Power Coefficient .....	CHENG Jiangtao CHEN Jin SHEN Wenzhong et al (111)
Numerical Simulation and Characteristic Analysis of Novel Whirlwind Supercharger .....	ZHOU Hongxiu BAI Dandan YANG Libo (118) (下转封三)

(上接第 II 页)

- Simulation of the Spray Atomization Characteristics of Diesel Oil in Hydrogen / Diesel Engine ..... SONG Yunchao NING Zhi JIANG Dahai et al (123)
- Mechanism of Combined Coning and Waviness Mechanical Face Seal for Nuclear Reactor Coolant Pump ..... WANG Xiaoxue LIU Ying LI Jinghao et al (131)
- Simulation and Experiments Study on Water Hydraulic Pressure Relief Valve with Pilot Stage ..... GONG Yongjun WANG Zuwen XU Jie et al (136)
- Theory and Experiment on the Soft Texture and Conning Shaped Single Valve
- Piezoelectric Pump with Different Interior and Exterior Taper ..... ZHANG Jianhui GUO Zongxin HUANG Yi et al (143)
- Control Strategy of the Electro-hydraulic Position and Speed Hybrid Servo System ..... BAI Yanhong QUAN Long (150)
- Research of Multiple Stresses Accelerated Life Model Verification Method ..... QIAN Ping CHEN Wenhua MA Zikui et al (156)
- Reliability Analysis of Components and System Considering Degradation of Strength ..... GAO Peng XIE Liyang (162)
- Development and Application of Process Industry Equipment Maintenance Information System for Intelligent Decision-making ..... WANG Qingfeng YANG Jianfeng LIU Wenbin et al (168)