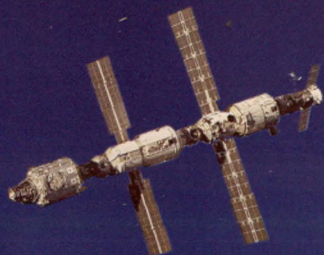


JOURNAL OF MECHANICAL STRENGTH

ISSN 1001-9669
CODEN JQIAEJ



机械强度[®]

JIXIE QIANGDU

第34卷 2012/3



CN41-1134/TH

06>



9 771001 966022

万方数据

中国机械工程师学会 主办
郑州机械研究所

目次

· 振动· 噪声· 监测· 诊断 ·

结构损伤识别的联合灵敏度方法研究	邵晓蓉	杨秋伟	赵卫(317)
载流圆板的磁弹性随机振动	王平	李晓靓	白象忠(322)
齿式联轴节不对中转子动力学响应分析	雷文平	韩捷	李志胜 陈磊(327)

· 实验研究· 测试技术 ·

尼龙帘线增强 NR/SBR 并用胶基磁敏橡胶的磁流变效应及其力学性能	游仕平	游世辉	曾德长(333)
一种弱界面结合涂层内抗拉强度测试方法		弓满锋	隋广洲(338)

· 优化· 可靠性 ·

加筋球壳结构稳定性及其优化研究	庞福振	姚熊亮	缪旭弘 钱德进(342)
-----------------------	-----	-----	-----------------

· 设计· 计算 ·

驾驶室外声场分析的边界元法与无限元法	李丽君	刚宪约	彭学娟 邹岳(351)
外物形状对发动机叶片中残余应力场的影响分析	尹冬梅	钱林方	董保明 徐亚栋(355)
含缺陷自增强厚壁圆筒塑性极限载荷分析	李强	李鹏辉	茹占勇 赵君官(361)
倒圆角直梁型柔性铰链刚度研究	任宁	田国豪	欧开良 王长路 周峰(366)
直角平面内圆形弹性夹杂对稳态入射平面 SH 波的模糊散射			刘艳蔚 史文谱(371)

· 疲劳· 损伤· 断裂· 失效分析 ·

基于宏-细观模型的疲劳裂纹萌生数值模拟		车国伟	陆山(379)
预压缩对橡胶球铰疲劳寿命的影响	尹素仙	肖世武	黄友剑 卜继玲 罗文波(384)

· 研究简报 ·

离散叉排肋化内冷通道流动与传热的数值模拟	赵辉	温志勋	岳珠峰(389)
混杂纤维圆筒与加强承力环共固化工艺的残余应力分析	任明法	黄其忠	陈浩然(394)
跌落碰撞下球栅阵列无铅焊点寿命分析		刘芳	孟光(399)
基于模糊层次分析法的维修方式群体决策模型		彭安华	王智明(403)
平面六节点等参应力奇异单元的精度研究		沈辉	周储伟(410)
军用方舱固支压缩破裂耗能的理论计算	安振涛	王超	甄建伟 李永生(415)
由两组力学实验曲线得到的启示	李海波	梁立宇	盖秉政 刘宗民(419)
有条件的正态应力、强度模式结构可靠性的经典精确下限			孙祝岭(424)
尿素合成塔爆破原因分析综述	王威强	徐书根	刘燕 李梦丽(427)
多节串联直角切口弹性铰链的屈曲分析			朱明 王卫英(436)
冲击值与金属材料其他力学性能关系的研究	梁永生	孙明武	张宪民(441)
基于高弯曲强度的齿轮过渡曲线分析	王丽萍	徐颖强	崔艳梅(445)
球囊扩张式冠脉支架的动静态扩张过程的变形机理研究	江旭东	冯海全	胡志勇 刘海(450)
铝合金热轧过程塑性变形分析		康煜华	刘义伦 何玉辉(455)
四边板开孔动力学优化设计研究			王栋 禹志刚(459)
硅压力传感器的随机振动步进试验定量分析评估		刘广泉	秦丽 石安利(465)
车用圆形支承橡胶部分承载力学性能研究			马富银 吴伟蔚(469)

· 信息 ·

· 广告· 振动测试与分析系统			(封四)
-----------------------	--	--	------

机械强度

主编 王长路

双月刊 1975年创刊

国际标准连续出版物号 ISSN 1001-9669

国内统一连续出版物号 CN 41-1134/TH

2012年第3期 第34卷 总第161期 2012年6月15日出版

电话: 0371-67710821 E-mail: jxqd@chinajournal.net.cn

http://jxqd.chinajournal.net.cn

主管 中国机械工业联合会
主办 中国机械工程学会 郑州机械研究所
编辑出版 《机械强度》编辑部
地址 郑州市嵩山南路81号 450052
彩印 郑州新海岸电脑彩色制印有限公司
印刷装订 河南新起点印务有限公司
发行范围 国内 外 发 行
国内发行 河南省信阳地区邮局
国内订阅 全国各地邮电局
国外发行 中国国际图书贸易总公司(北京399信箱)

CONTENTS

• Vibration • Noise • Monitoring • Diagnosis •

- Structural damage detection by a combined sensitivity method SHAO XiaoRong YANG QiuWei ZHAO Wei(317)
- Random vibration of a current carrying circular plate in magnetic field WANG Ping LI XiaoJing BAI XiangZhong(322)
- Dynamic response analysis of the rotors connected by the misaligned gear coupling
..... LEI WenPing HAN Jie LI ZhiSheng CHEN Lei(327)

• Experimental Research •

- Magnetorheological effects and mechanical properties of nylon cord reinforced
magnetorheological rubbers based on NR/SBR blend YOU ShiPing YOU ShiHui ZENG DeChang (333)
- Measurement method of in-plane tensile strength for weak-interface bonding coatings GONG ManFeng SUI GuangZhou(338)

• Optimization • Reliability •

- Buckling and optimization research of a ribbed spherical hull PANG FuZhen YAO XiongLiang MIAO XuHong QIAN DeJin (342)

• Design • Calculation •

- BEM and IFEM on exterior acoustic fields analysis of cab LI LiJun GANG XianYue PENG XueJuan ZOU Yue(351)
- Analysis for effects of foreign object shape on the residual stress field of engine blade
..... YIN DongMei QIAN LinFang LI BaoMing XU YaDong (355)
- Analysis of plastic limit load of autofrettage thick-wall cylinder with slot
..... LI Qiang LI PengHui RU ZhanYong ZHAO JunGuan (361)
- Research on rigidity of corner-filletted flexural hinges
..... REN Ning TIAN GuoHao OU KaiLiang WANG ChangLu ZHOU Feng (366)
- Fuzzy scattering of steady incident SH wave to the circular elastic inclusion in right-angle plane LIU YanWei SHI WenPu (371)

• Fatigue • Damage • Fracture • Failure Analysis •

- Numerical simulation of fatigue crack initiation based on macro-micro models MU YuanWei LU Shan (379)
- Effect of pre-compression on fatigue life of rubber bushing
..... YIN SuXian XIAO ShiWu HUANG YouJian BU JiLing LUO WenBo (384)

• Research Notes •

- Numerical simulation on turbulent flow and heat transfer in cooling duct with
discrete-cross ribs on the opposite walls ZHAO Hui WEN ZhiXun YUE ZhuFeng (389)
- Analysis of residual stress for hybrid fibrous reinforced cylinder with stiffened ring
during co-curing process REN MingFa HUANG QiZhong CHEN HaoRan (394)
- Life analysis of ball grid array lead-free solder joints under drop impact LIU Fang MENG Guang (399)
- Group decision making for maintenance strategies based on fuzzy analytic hierarchy process PENG AnHua WANG ZhiMing (403)
- Study on the accuracy of plane six-node isoparametric stress singular element SHEN Hui ZHOU ChuWei (410)
- Theoretical computation on the energy of the compression and crack of military shelter
with completely clamped AN ZhenTao WANG Chao ZHEN JianWei LI YongSheng(415)
- Inspiration from two mechanical experiment curves LI HaiBo LIANG LiFu GAI BingZheng LIU ZongMin (419)
- Classical precise lower limits of structural reliability for normal stress and normal strength
with the condition SUN ZhuLing (424)
- Review of the explosion reason analysis of urea reactors WANG WeiQiang XU ShuGen LIU Yan LI MengLi (427)
- Buckling analysis of serial mechanism consisted of the right-angle-notch flexure hinges ZHU Ming WANG WeiYing (436)
- Studying relationship of impact value and other metal material performance
..... LIANG YongSheng SUN MingWu ZHANG XianMin (441)
- Transition curve of gear based on high bending strength WANG LiPing XU YingQiang CUI YanMei (445)
- Research on deformation mechanism for balloon-expandable intracoronary stents in static and periodic expansion
..... JIANG XuDong FENG HaiQuan HU ZhiYong LIU Hai(450)
- Deformation analysis of the hot rolling process of aluminum alloy KANG YuHua LIU YiLun HE YuHui (455)
- Optimization of cutout inside quadrilateral plate for maximization of eigenfrequency WANG Dong YU ZhiGang (459)
- Evaluation and analysis of reliability of silicon piezoresistive pressure transducer tested
by random vibration step stress test LIU GuangQuan QIN Li SHI AnLi (465)
- Study the mechanical properties in rubber of round bearing used in car MA FuYin WU WeiWei (469)

Executive duty editor CHEN AiMin

JOURNAL OF MECHANICAL STRENGTH

Vol. 34 No. 3 2012 Bimonthly Started publication in 1975

Sponsored by: Chinese Mechanical Engineering Society Zhengzhou Research Institute of Mechanical Engineering

Edited and Published by: Editorial Department of JOURNAL OF MECHANICAL STRENGTH

Address of Editorial Department: No. 81, Songshan South Rd., Zhengzhou, Henan, China(Post code: 4 5 0 0 5 2)

Distributed Abroad by: China International Book Trading Corporation(Guoji Shudian)P. O. Box 399, Beijing, China

Journal No. : ISSN 1001—9669 4443(abroad) E-mail: jxqd@chinajournal.net.cn Editor in Chief: WANG ChangLu
CN 41—1134/TH