

目次

振动噪声控制技术专栏(专栏主编:汪国胜,中国北方车辆研究所研究员级高级工程师)

- 底部爆炸冲击下装甲车乘员下肢损伤行为与防护研究 牛 坤,焦 猛,莫富灏,李桂兵(1)
- 航天发射场典型振动试验与装备防护研究 潘 晓,李 东,张东云,徐 跃(8)
- 基于曲柄移动导杆机构的高速履带车辆振动激励解耦装置设计 陈哲吾,向家佑,戴巨川,郭 勇,胥小强(15)
- 装甲车防爆座椅抗爆指标合理性研究与建议(军用车辆乘载员防地雷爆炸减振抗爆座椅设计研究系列二) 汪国胜,曹 宇,张伟杰,周少峰,刘亚青(22)

水动力与水弹道专栏(专栏主编:蒋运华,中山大学 副教授、博导)

- 通气协助航行体出水流动实验研究 杨 茂,王涵瑞,邹志辉,沈 乐,李 洋,吴 斌,蒋运华,刘红松(29)
- 不同头型旋成体入水初期流场特性数值分析 吕红庆,许 磊,王振清(34)
- 基于响应面方法的 AUV 水动力外形优化 何 隆,张 亚,李世中,王芙蓉,袁泽慧,常慧珠(43)
- 基于 NSGA II 的七叶侧斜螺旋桨多目标优化设计 孙鸣远,刘昕瑶,张 皓,严 俊(51)

跨介质飞行器专栏(专栏主编:于勇,北京理工大学宇航学院 副教授、博导)

- 变形仿生飞翼跨介质无人机外形设计与航行仿真 吕 达,苏浩秦,李 筠,张子俊,龙 浩,马 宇,刘晓伟(59)
- 流体可压缩性对高速入水流体动力的影响 宁子炎,郭则庆(67)
- 尾翼直径对超空泡射弹小角度入水弹道特性影响研究 张云治,郭则庆,孙 帅(74)

综述

- 动态武器目标分配问题的现状与进展 宋贵宝,强裕功,刘 铁,刘镇毓(83)
- 呋咱环构建策略及其含能化合物合成研究进展 折巍青,翟连杰,霍 欢,黄 洁,王伯周(89)
- 破片战斗部轴向飞散控制技术研究进展 刘 伟,梁争峰,曹 磊(100)
- 硝基类含能材料热分解研究进展 何 彬,卢先明,孟子晖,鄂秀天凤,刘 宁(108)

装备理论与装备技术

- 基于运动方程的弹道导弹建模仿真方法 赵 蒙,王明宇,王 健,乔 睿(118)
- 药型罩参数对多功能战斗部威力性能影响研究 石家政,王在成,毛 亮,姜春兰,胡 榕(125)
- 考虑多属性约束的战时装备维修任务动态调度 米巧丽,卢明章,李本威,王永生(132)

基于差分 BDS 的脉冲测量雷达标校设计与实现	郭 健,许 庆,刘洪林,姜晶莉(139)
基于键合空间理论的直线闭合弹带启动特性	邓致远,林圣业,姜铁牛,王茂森,管红根,戴劲松(145)
轻量化复合材料枪管振动特性分析	程振文,赵 磊,吴志林(153)
Comp B 炸药枪击数值仿真研究	郑 英,黎坤海,赵 铮,王 威(158)
通电方式对多级同步感应线圈装置性能影响分析及优化方法	郑方正,黄垂兵,姜润翔,鲁梦昆,钱翰宁(165)
高空破片速度衰减规律试验研究	王满林,李法涛,于洪海,刘宗伟(172)
电磁轨道炮试验装置动态特性动力学分析	李四超,刘可可(177)
装药动态侵彻性能	张宾镇,赵太勇,陈智刚,景 彤,王维占,田 鹏,顾敏辉(182)

基础理论与应用研究

基于 PD 控制算法与 Isight 系数优化的无人机轨迹跟踪	柳文林,潘子双,崔凯凯(188)
基于 ProCAST 的熔铸装药顺序凝固工艺边界建模方法研究	黄求安,刘恒著,史慧芳,曹红松,王兆国,牛凯博,杨 阳(194)
薄膜铂电阻温度传感器多股线束渐次屈服与断裂失效分析	钱 诚,胡彩霞,孟津霄,李文娟(201)
浅埋爆炸近场荷载特征研究	梁 茜,王仲琦,刘廷军,缙宇超(207)
基于动态流变学研究 Al/AP/GAP 悬浮液粘弹特性	王亚娜,王 毅,宋小兰,安崇伟(215)
工艺节点流驱动的装配工艺孪生模型构建	成 彬,罗富文(221)
基于动态优化的膜法富氧发动机高原工况节能特性研究	安 强,姜梦炜,叶 敏(230)
爆炸地震动下箱体贮液结构隔震试验与分析	王琼婷,宋春明,龙志林,张浩天,邢文政(236)
基于超声波渡越时间的非稳态温度场数值计算与实验研究	田雨生,刘东尧(244)
石油醚/水的微乳液体系对 HTPB 推进剂的溶胀特性的影响	张 力,赵 然,马会娟,陈 丽(249)
工艺参数对高温钛合金 Ti65 扩散连接性能的影响	杨 震,张晓巍,张 鑫,王 钰,李虹霖,赵天章(254)
爆炸冲击波对模拟电台靶标毁伤效应分析	崔国龙,姚文进,郑 宇(259)

信息科学与控制工程

智能车辆局部避障轨迹规划研究	姚 芳,郑 帅,吴正斌(265)
基于改进 NSGA II 算法的舰载机保障作业调度	张 勇(272)
基于改进变分模态分解与残差网络的空调外机故障检测方法	龙 畅,余成波,王 浩(278)
跨监控探头数据集构建和轨迹预测方法研究	袁 首,乔勇军,苏 航,陈青华,刘 星(283)
基于 UML 与着色 Petri 网的预警情报智能推荐的建模与验证	牛 犇,黄志良,吴俊杰,张福群,李子墨(291)
改进多邻域候鸟优化算法的柔性作业车间调度研究	杜凌浩,向凤红(299)
基于加权核范数最小化的高速目标检测优化算法	王 阳,张小宽,马前阔,宋海燕,郑舒予,徐嘉华(307)

JOURNAL OF ORDNANCE EQUIPMENT ENGINEERING

Vol. 43 No. 12 (Sum. No. 293) Dec. 2022

CONTENTS

Research on injury behaviors and protection of armored vehicle occupant lower limbs in under-body blast impacts	NIU Kun, JIAO Meng, MO Fuhao, et al(1)
Research on typical vibration tests and equipment protection on space launch sites	PAN Xiao, LI Dong, ZHANG Dongyun, et al(8)
Design of vibration excitation decoupling device for high-speed tracked vehicle based on crank-moving guide rod mechanism	CHEN Zhewu, XIANG Jiayou, DAI Juchuan, et al(15)
Research and suggestion on rationality of anti-explosion index of armored vehicle anti-explosion seats (Research on design technology of shock absorbing and anti-explosion for military vehicle seats (Series II))	WANG Guosheng, CAO Yu, ZHANG Weijie, et al. (22)
Experimental investigation on ventilated cavity flow characteristics of the vehicle water exit	YANG Mao, WANG Hanrui, ZOU Zhihui, et al(29)
Numerical research on flow field characteristics of axisymmetric bodies with different head shapes during initial water entry	LYU Hongqing, XU Lei, WANG Zhenqing(34)
Hydrodynamic profile optimization of AUV based on response surface method	HE Long, ZHANG Ya, LI Shizhong, et al(43)
Multi-objective optimization design of seven-blade oblique propellers based on NSGA II	SUN Mingyuan, LIU Xinyao, ZHANG Hao, et al(51)
Configuration design and navigation simulation of deformable bionic flying-wing aerial-aquatic unmanned vehicles	LYU Da, SU Haoqin, LI Yun, et al(59)
Effect of compressibility on hydrodynamic force of high-speed fluid entering water	NING Ziyan, GUO Zeqing(67)
Influence of tail diameter on ballistic characteristics of supercavitating projectiles entering water at small angles	ZHANG Yunzhi, GUO Zeqing, SUN Shuai(74)
The present situation and progress of dynamic weapon target assignment	SONG Guibao, QIANG Yugong, LIU Tie, et al(83)
Research progress on construction strategy of a furazan ring and synthesis of its energetic compounds	SHE Weiqing, ZHAI Lianjie, HUO Huan, et al(89)
Research progress on axial scattering control technology of fragmentation warhead	LIU Wei, LIANG Zhengfeng, CAO Lei(100)
Research progress in thermal decomposition of Nitro energetic materials	HE Bin, LU Xianming, MENG Zihui, et al(108)
Modeling and simulation of ballistic missiles based on motion equation	ZHAO Meng, WANG Mingyu, WANG Jian, et al(118)
Study on the influence of liner parameters on the destruction of multifunctional warhead	SHI Jiazheng, WANG Zaicheng, MAO Liang, et al(125)
Dynamic scheduling of wartime equipment maintenance tasks considering multi-attribute constraints	MI Qiaoli, LU Mingzhang, LI Benwei, et al(132)
Design and implementation of radar calibration for pulse instrumentation based on differential BDS techniques	GUO Jian, XU Qing, LIU Honglin, et al(139)
Starting characteristics of a linear closed shell chain based on bond space theory	DENG Zhiyuan, LIN Shengye, JIANG Tieniu, et al(145)
Analysis of vibration characteristics of lightweight composite barrels	CHENG Zhenwen, ZHAO Lei, WU Zhilin(153)
Numerical simulation of gunshot values of Comp B	ZHENG Ying, LI Kunhai, ZHAO Zheng, et al(158)
Analysis and optimization method of the influence of power mode on the performance of a multi-stage synchronous induction coil	ZHENG Fangzheng, HUANG Chuibing, JIANG Runxiang, et al(165)
Experimental study on velocity attenuation law of fragments at a high altitude	WANG Manlin, LI Fatao, YU Honghai, et al(172)

JOURNAL OF ORDNANCE EQUIPMENT ENGINEERING

Vol. 43 No. 12 (Sum. No. 293) Dec. 2022

Dynamic characteristics analysis of electromagnetic railgun experimental equipment	LI Sichao, LIU Keke(177)
Simulation of dynamic penetration performance of shaped charge based on SPH	ZHANG Binzhen, ZHAO Taiyong, CHEN Zhigang, et al(182)
UAV trajectory tracking based on PD control algorithm and Isight coefficient optimization	LIU Wenlin, PAN Zishuang, CUI Kaikai(188)
Study on boundary modeling of the sequential solidification process for melt-cast charging using ProCAST	HUANG Qiu'an, LIU Hengzhu, SHI Huiyang, et al(194)
Progressive yield and fracture failure analysis of the multi-strand wire in a platinum thin film resistance temperature detector	QIAN Cheng, HU Caixia, MENG Jinxiao, et al(201)
Study on near-field load characteristics of shallow buried explosion	LIANG Xi, WANG Zhongqi, LIU Tingjun, et al(207)
Research on viscoelasticity of Al/AP/GAP suspensions based on dynamic rheology	WANG Yana, WANG Yi, SONG Xiaolan, et al(215)
Construction of assembly process twin model driven by process node flow	CHENG Bin, LUO Fuwen(221)
Energy saving on the membrane-based oxygen-enriched engines based on dynamic programming under high altitude conditions	AN Qiang, JIANG Mengwei, YE Min(230)
Vibration isolation test and analysis of box liquid storage structure under ground motion of explosion locations	WANG Qiongtong, SONG Chunming, LONG Zhilin, et al(236)
Calculation and experimental research of unsteady temperature field based on ultrasonic transit time	TIAN Yusheng, LIU Dongyao(244)
Influence of petroleum ether/water microemulsion system on swelling characteristics of HTPB propellant	ZHANG Li, ZHAO Ran, MA Huijuan, et al(249)
Effect of process parameters on diffusion bonding properties of high temperature titanium alloy Ti65	YANG Zhen, ZHANG Xiaowei, ZHANG Xin, et al(254)
Analysis of damage effect of explosion shock waves on analog radio targets	CUI Guolong, YAO Wenjin, ZHENG Yu(259)
Research on local obstacle avoidance trajectory planning of intelligent vehicles	YAO Fang, ZHENG Shuai, WU Zhengbin(265)
Carrier-based aircraft support scheduling based on improved NSGA II	ZHANG Yong(272)
Fault detection method of air conditioner external unit based on improved variational modal decomposition and residual network	LONG Chang, YU Chengbo, WANG Hao(278)
Research on dataset construction and trajectory prediction method of cross-monitoring vidicons	YUAN Shou, QIAO Yongjun, SU Hang, et al(283)
Modeling and verification of intelligent recommendation of early warnings based on UML and colored Petri nets	NIU Ben, HUANG Zhiliang, WU Junjie, et al(291)
Research on flexible job shop scheduling based on improved multi-neighborhood migratory bird optimization algorithm	DU Linghao, XIANG Fenghong(299)
High-speed target detection optimization algorithm based on weighted nuclear norm minimization	WANG Yang, ZHANG Xiaokuan, MA Qiankuo, et al(307)