

目次

装备理论与装备技术

残余应力对身管内膛裂纹应力强度因子的影响	冉相辰,李 强(1)
发射装药老化对于跌落安全性的影响	米巧丽,卢明章,李本威,李云峰(8)
动爆冲击波场空间位置分布规律研究	周至柔,蒋海燕,苏健军(15)
三级子母弹分离方案气动数值分析	初景江,李 盾(22)
基于磁耦合谐振式的非接触点火技术研究	刘双庆,杨 臻,方 炜,王永艳,李 印(29)
基于 IGBT 时序控制磁阻发射特性分析	齐文达,向红军,贾学斌,孟学平(35)
脱壳穿甲弹毁伤效应试验研究	陈桂荣,欧阳稠,彭 安,焦延博(40)
基于激光近感探测的远距离捕捉网弹设计	邹攀攀,刘加凯,王 娅(47)
弹道修正引信隔转平台设计与实验分析	李鑫鹏,郝波涛,赵晓旗,王建军(52)
A320 机翼结构部段的超手册损伤与修理评估	戴蔚杰,陆晓华,左洪福(62)

基础理论与应用研究

数字节点链驱动的李生工序动态模型构建	成 彬,樊 琛(69)
包覆式活性破片冲击激发临界条件研究	赵 锐,陈 放(77)
三配流窗口轴向柱塞泵非死点过渡区结构优化	张峻溢,王 君,郭洪钊(82)
前立柱横梁对火箭橇被试品气动特性影响研究	杨 洋,张晨辉,吕水燕,李 康(89)
基于 RQFD 强光爆震弹需求分析	季 顶,马永忠(95)
考虑 CFRP 与混凝土动态界面特性的 RC 柱抗爆响应动力分析	雷永智,秦青阳,吕佼佼,唐海北(100)

信息科学与控制工程

基于 AKF 的无人水翼航行器纵向姿态控制研究	孙佳宇,段富海(108)
基于光纤环声发射的装甲车侧传动故障诊断	魏 鹏,刘启航,王泽林,陈娟丽,毕京红,宋 娜,武 盼(113)
一种自适应触发门限的冲击波测试系统	宋林丽,马竹新,王代华,刘 彬(120)
基于增量预测控制的高速多体船垂向运动稳定研究	许炜东,张 军,仲铭杰,杨一帆(126)

基于代价敏感多类别三支决策的目标意图识别方法	杨晨光,宋绍梅,范盘龙(132)
基于“墨子”的空中拦截任务程序二次开发与仿真	高哲晟,祝世兴(137)
基于丘陵地区的无线宽带基站选址算法研究	边 强,徐东辉,刘江亮,何婧媛,杨海宇(146)
基于多目标鲸鱼优化算法的动态武器目标分配	邱少明,柏陈城,吕亚娜,李 傲(153)
基于超螺旋滑模观测器的六相 PMSM 转速估计	白月建,刘 剑(160)

化学工程与材料科学

改性双基推进剂 RDX-CMDB 的热安全性研究	焦枫媛,郭家鑫,王晶禹,曹卫国,刘海红,赵玉鑫(167)
Al/PTFE 活性材料在炸药爆轰作用下的响应特性研究	李凌峰,王 辉,韩秀凤,沈 飞(174)
TKX-50/BTF 双组分炸药与黏结剂间界面作用的 MD 模拟	高富炳,范家珂,安崇伟(180)
烟幕干扰效能评价方法及质量消光系数的修正	李笑楠,李天鹏,高欣宝,崔 岩(187)
基于咪唑并[4,5-d]吡嗪设计潜在高能量密度化合物	康润宇,贺增弟,赵林秀,刘 波,张 伟,荆苏明(195)

摩擦效应对三维自由弯曲过程中管材变形行为的影响规律研究	于 波,舒 送,程宗辉,张 浩,程 诚,郭训忠,崔前林(203)
考虑尺寸效应的微型武器壳体动态响应分析	柴 彪,李 勇,宋修元,刘华颖,梁晓峰(211)

机械制造与检测技术

基于调谐质量阻尼器的摩托车手把减振研究	黄泽好,蒋 欢,童 勇,杨峻懿(219)
刀具表面椭圆开口偏置抛物线微织构参数优化	于英华,杨帅彬,阮文新,徐 平,沈佳兴(225)
非圆行星齿轮液压马达三维参数化建模方法	史 诺,刘 琼,李 琦,李 宽(234)
碳纤维增强复合材料钻削轴向力的研究	王天宇,金成哲,邵雍博(241)
闭式泵阀联控电液驱动系统的设计	周加永,孟小净,王亮宽,王 妍,吴潇璞(247)

光学工程与电子技术

一种具有陡降特性的宽带带通频率选择表面结构设计	李荣浩,王 毅,曹群生(253)
基于 DenseNet 和注意力机制的静爆场破片识别方法研究	魏 琦,何子清,王亚林,王 军(259)
光幕阵列多维度模拟信号产生及测量误差校准	牧 迪,陈 丁,王 利,韩金希,宁 超(266)

JOURNAL OF ORDNANCE EQUIPMENT ENGINEERING

Vol. 44 No. 2 (Sum. No. 295) Feb. 2023

CONTENTS

Effect of residual stress on stress intensity factors of inner barrel bore cracks	RAN Xiangchen, LI Qiang(1)
Effect of the aging of propellant charge on drop safety	MI Qiaoli, LU Mingzhang, LI Benwei, et al(8)
Study on spatial position distribution of a dynamic detonation shock wave field	ZHOU Zhirou, JIANG Haiyan, SU Jianjun(15)
Aerodynamic numerical analysis of the three-stage submunition separation scheme	CHU Jingjiang, LI Dun(22)
Research on non-contact ignition technology based on magnetically coupled resonance	LIU Shuangqing, YANG Zhen, FANG Wei, et al(29)
Analysis of reluctance-launching characteristics based on IGBT timing control	QI Wenda, XIANG Hongjun, JIA Xuebin, et al(35)
Experimental research on damage effects of APDS	CHEN Guirong, OUYANG Chou, PENG An, et al(40)
Design of long-distance capture net projectiles based on laser proximity detection	ZOU Panpan, LIU Jiakai, WANG Ya(47)
Design and experimental analysis of the trajectory correction fuze isolation platform	LI Xinpeng, HAO Botao, ZHAO Xiaoqi, et al(52)
Ultra-manual damage and repair evaluation of A320 wing structural sections	DAI Weijie, LU Xiaohua, ZUO Hongfu(62)
Construction of a twin process dynamic model driven by digital node chains	CHENG Bin, FAN Chen(69)
Study on critical conditions of impact excitation of coated reactive fragments	ZHAO Rui, CHEN Fang(77)
Structural optimization of the non-dead center transition zone of an axial piston pump with three assignment windows	ZHANG Junyi, WANG Jun, GUO Hongzhao(82)
Research on the influence of aerodynamic characteristics of the front column beam on rocket sled test objects	YANG Yang, ZHANG Chenhui, LYU Shuiyan, et al(89)
Demand analysis based on RQFD high-light detonation bombs	JI Ding, MA Yongzhong(95)
Dynamic analysis of anti-explosion response of RC columns considering dynamic interface characteristics of CFRP and concrete	LEI Yongzhi, QIN Qingyang, LYU Jiaojiao, et al(100)
Research on longitudinal attitude control of unmanned hydrofoil vehicles based on AKF	SUN Jiayu, DUAN Fuhai(108)
Fault diagnosis of side transmission of armored vehicles based on optical fiber ring acoustic emission	WEI Peng, LIU Qihang, WANG Zelin, et al(113)
A shockwave test system with an adaptive trigger threshold	SONG Linli, MA Zhuxin, WANG Daihua, et al(120)
Vertical motion stability of high-speed multihulls based on incremental predictive control	XU Weidong, ZHANG Jun, ZHONG Mingjie, et al(126)
A target intention recognition method based on cost-sensitive and multi-class three-branch decision	YANG Chenguang, SONG Shaomei, FAN Panlong(132)

JOURNAL OF ORDNANCE EQUIPMENT ENGINEERING

Vol. 44 No. 2 (Sum. No. 295) Feb. 2023

Secondary development and simulation of air interception task programs based on “Mozi”	GAO Zhesheng, ZHU Shixing(137)
Base station site selection algorithm of the wireless broadband communication system based on hilly areas	BIAN Qiang, XU Donghui, LIU Jiangliang, et al(146)
Dynamic weapon target allocation based on the multi-objective whale optimization algorithm	QIU Shaoming, BAI Chencheng, LYU Yana, et al(153)
Speed estimation of six-phase PMSM based on a super-twisting sliding mode observer	BAI Yuejian, LIU Jian(160)
Study on thermal safety of RDX-CMDB	JIAO Fengyuan, GUO Jiaxin, WANG Jingyu, et al(167)
Research on the response characteristics of Al/PTFE active materials under explosive detonation	LI Lingfeng, WANG Hui, HAN Xiufeng, et al(174)
Molecular dynamics simulation of the interface interaction between the TKX-50/BTF two-component explosive and binders	GAO Fubing, FAN Jiake, AN Chongwei(180)
Shielding performance evaluation of smoke screens and revision of the smoke screen mass extinction coefficient	LI Xiaonan, LI Tianpeng, GAO Xinbao, et al(187)
Design of potentially high energy density compounds based on 1H-imidazo[4,5-d]pyridazine	KANG Runyu, HE Zengdi, ZHAO Linxiu, et al(195)
Investigation on the influence of friction effect on tube deformation in 3D free bending process	YU Bo, SHU Song, CHENG Zonghui, et al(203)
Dynamic response analysis of micro weapon shells considering size effect	CHAI Biao, LI Yong, SONG Xiuyuan, et al(211)
Research on vibration reduction of motorcycle handlebars based on a tuned mass damper	HUANG Zehao, JIANG Huan, TONG Yong, et al(219)
Parameter optimization of offset parabolic micro texture of cutter surface elliptical opening	YU Yinghua, YANG Shuaibin, RUAN Wenxin, et al(225)
3D parametric modeling of non-circular planetary gear hydraulic motors	SHI Nuo, LIU Qiong, LI Qi, et al(234)
Research on axial force of carbon fiber reinforced composite drilling	WANG Tianyu, JIN Chengzhe, SHAO Yongbo(241)
Design of a closed pump-valve joint controlled electro-hydraulic drive system	ZHOU Jiayong, MENG Xiaojing, WANG Liangkuan, et al(247)
Design of the frequency selective surface of a broadband bandpass with steep dropping	LI Ronghao, WANG Yi, CAO Qunsheng(253)
Research on fragment identification of a static explosion field based on DenseNet and attention mechanism	WEI Qi, HE Ziqing, WANG Yalin, et al(259)
Generation of multi-dimensional analog signals and calibration on measurement error of light screen arrays	MU Di, CHEN Ding, WANG Li, et al(266)