

爆炸与冲击

BAOZHA YU CHONGJI

1981年7月创刊

2022年6月

第42卷 第6期

(总第224期)

目次

· 爆炸物理 ·

- KH₂PO₄/SiO₂ 复合粉体抑制铝粉爆燃效果及机理分析 颜轲, 孟祥豹, 潘智超, 王政, 张延松 062101
- RDX 基含铝炸药爆轰波结构实验研究 丁彤, 裴红波, 郭文灿, 张旭, 郑贤旭, 刘仓理 062301

· 冲击动力学 ·

- 基于红外热成像的编织复合材料低速冲击和冲击后压缩试验研究 刘鹏, 蔡应龙, 顾佳辉, 罗维, 张超 063101
- 中低速压缩加载下不同截面构型复合材料薄壁结构吸能特性及失效分析
..... 张欣玥, 惠旭龙, 葛宇静, 舒挽, 白春玉, 刘小川 063102
- Al/PTFE 活性材料冲击载荷作用下响应特性研究 任耶平, 刘睿, 陈鹏万, 郭岩松, 胡启文, 葛超, 王海福 063103
- 软基体混合胞孔材料的力学性能及抗多次冲击性能 陈松, 习会峰, 黄世清, 王博伟, 王小刚 063104
- 椭圆截面侵彻弹体结构优化设计与结构响应 谭远深, 黄风雷, 皮爱国 063301
- 考虑尺寸效应的典型钻地弹侵彻混凝土深度分析 程月华, 姜鹏飞, 吴昊, 谭可可, 方秦 063302
- 冲击载荷下轻质夹芯拱最大刚度拓扑优化及动力响应 刘颖, 白震, 李志强, 李世强 063303

· 实验技术与数值方法 ·

- 散体介质 SHPB 被动围压试验体应力计算的理论修正方法 陈昊祥, 李杰, 邓树新, 王德荣, 王明洋 064901

· 应用爆炸力学 ·

- 水下爆炸下典型舰船结构整体损伤模式表征方法及图谱研究 张弛, 刘凯, 李海涛, 梅志远, 郑欣颖 065101
- 钢筋混凝土结构改进型分离式数值模型 曾繁, 冯晓伟, 黄超, 徐权, 肖桂仲, 田荣 065102
- Al(OH)₃ 对聚丙烯腈粉火焰传播特性影响研究 郝峥, 许开立, 张毓媛, 刘博 065401
- CF₃I 和 CO₂ 抑制甲烷-空气爆炸实验研究 程方明, 南凡, 肖晔, 罗振敏, 牛巧霞 065402

EXPLOSION AND SHOCK WAVES

Vol. 42, No. 6, 2022 (Sum No. 224)

CONTENTS

• Explosion Physics •

- Effect and mechanism of $\text{KH}_2\text{PO}_4/\text{SiO}_2$ composite powder in inhibiting aluminum dust deflagration
..... YAN Ke, MENG Xiangbao, PAN Zhichao, WANG Zheng, ZHANG Yansong 062101
- Experimental study on detonation wave profiles in RDX-based aluminized explosives
..... DING Tong, PEI Hongbo, GUO Wencan, ZHANG Xu, ZHENG Xianxu, LIU Cangli 062301

• Impact Dynamics •

- Experimental research on low-velocity impact and compression after impact of braided composites based on infrared thermal imaging
..... LIU Peng, CAI Yinglong, GU Jiahui, LUO Wei, ZHANG Chao 063101
- Energy absorption characteristics and failure analysis of composite thin-walled structures with different cross-sectional configurations under medium- and low-speed compression loading
..... ZHANG Xinyue, HUI Xulong, GE Yujing, SHU Wan, BAI Chunyu, LIU Xiaochuan 063102
- A study of the response characteristics of Al/PTFE reactive materials under shock loading
..... REN Yeping, LIU Rui, CHEN Pengwan, GUO Yansong, HU Qiwen, GE Chao, WANG Haifu 063103
- Mechanical properties of the mixed cellular material with soft matrix and its response to repeated impacts
..... CHEN Song, XI Huifeng, HUANG Shiqing, WANG Bowei, WANG Xiaogang 063104
- Structural optimization design and structural response of elliptical-section penetration projectiles
..... TAN Yuanshen, HUANG Fenglei, PI Aiguo 063301
- On penetration depth of typical earth-penetrating projectiles into concrete targets considering the scaling effect
..... CHENG Yuehua, JIANG Pengfei, WU Hao, TAN Keke, FANG Qin 063302
- Maximum stiffness topology optimization and dynamic response of a lightweight sandwich arch under impact load
..... LIU Hao, BAI Zhen, LI Zhiqiang, LI Shiqiang 063303

• Experimental Techniques & Numerical Methods •

- A theoretically-modified method for calculating the volumetric stresses in passive confined pressure SHPB tests of granular materials
..... CHEN Haoxiang, LI Jie, DENG Shuxin, WANG Derong, WANG Mingyang 064901

• Applied Explosion Mechanics •

- Study on the characterization method and mode map of overall damage of typical warship structures subjected to underwater explosions
..... ZHANG Chi, LIU Kai, LI Haitao, MEI Zhiyuan, ZHENG Xinying 065101
- Modified discrete numerical model for reinforced concrete structures
..... ZENG Fan, FENG Xiaowei, HUANG Chao, XU Quan, XIAO Guizhong, TIAN Rong 065102
- Study on the effect of $\text{Al}(\text{OH})_3$ on the flame propagation characteristics of polyacrylonitrile powder
..... HAO Zheng, XU Kaili, ZHANG Yuyuan, LIU Bo 065401
- Experimental study on the suppression of methane-air explosion by CF_3I and CO_2
..... CHENG Fangming, NAN Fan, XIAO Yang, LUO Zhenmin, NIU Qiaoxia 065402