

爆 炸 与 冲 击

BAOZHA YU CHONGJI

1981 年 7 月创刊

2021 年 3 月

第 41 卷 第 3 期

(总第 209 期)

目 次

• 特别约稿与研究综述 •

基于数据挖掘技术的地下工程目标毁伤效应计算方法 张磊, 吴昊, 赵强, 王幸, 任新见, 王继民, 孔德锋 031101

• 专题: 爆炸力学实验技术 •

- “爆炸力学实验技术”专题出版前言 卢芳云 031400
金属梁在预应力下的冲击响应 郑监, 卢芳云 031401
破片撞击下 YAG 透明陶瓷复合靶的破坏特性 包阔, 张先锋, 王桂吉, 邓佳杰, 韩丹, 谈梦婷, 魏海洋 031402
异型截面长杆弹侵彻半无限厚金属靶板实验研究 王晓东, 王江波, 徐立志, 杜忠华, 高光发 031403
考虑应力三轴度影响的 30CrMnSiNi2A 钢韧性断裂研究 余万千, 郁锐, 崔世堂 031404
水下爆炸气泡射流载荷阵列测量技术探索 盛振新, 刘建湖, 张显丕, 果涛, 陈江涛, 杨静 031405
长杆弹撞击装甲陶瓷界面击溃/侵彻特性 谈梦婷, 张先锋, 包阔, 魏海洋, 韩国庆 031406
NEPE 推进剂低高应变率下改进的黏-超弹本构模型 孙政伟, 许进升, 周长省, 陈雄, 杜红英 031407
活性材料冲击释能行为研究进展 汪德武, 任柯融, 江增荣, 赵宏伟, 陈荣, 郭宝月 031408

• 爆炸物理 •

- 电磁加载下 7075 铝环的膨胀断裂模式转变研究 杨晨, 刘明涛, 汤铁钢, 郭昭亮, 范诚 032201
TATB 基非均质炸药预冲击减敏的数值模拟 黄奎邦, 刘益儒, 洪滔, 于鑫, 彭文扬, 舒俊翔 032301

• 冲击动力学 •

- 高速列车用 6008 铝合金动态变形本构与损伤模型参数研究 高玉龙, 孙晓红 033101
球头弹体侵彻舰船板架加强筋时的攻角变化简化理论模型 姚熊亮, 王治, 叶培君, 吴子奇, 王志凯 033301

• 应用爆炸力学 •

- 基于可靠性的车辆防护组件优化 吴凯, 王显会, 周云波, 毕政, 李明星 035101

• 学科相关 •

- 学科动态 敬霖 039401

EXPLOSION AND SHOCK WAVES

Vol. 41, No. 3, 2021 (Sum No. 209)

CONTENTS

• Invited Article & General Review •

| | | |
|--|--|--------|
| Calculation method of damage effects of underground engineering objectives based on data mining technology | ZHANG Lei, WU Hao, ZHAO Qiang, WANG Xing, REN Xinjian, WANG Jimin, KONG Defeng | 031101 |
|--|--|--------|

• Special: Experimental Techniques in Mechanics of Explosion •

| | | |
|---|--|--------|
| Introduction to special issue on experimental techniques in mechanics explosion | LU Fangyun | 031400 |
| On impact response of a prestressed metal beam | ZHENG Jian, LU Fangyun | 031401 |
| Fracture characteristics of YAG transparent ceramic composite targets subjected to impact of sphere fragments | BAO Kuo, ZHANG Xianfeng, WANG Guiji, DENG Jiajie, HAN Dan, TAN Mengting, WEI Haiyang | 031402 |
| Experimental study on penetration of non-circular cross-section long-rod projectiles into semi-infinite metal target | WANG Xiaodong, WANG Jiangbo, XU Lizhi, DU Zhonghua, GAO Guangfa | 031403 |
| On ductile fracture of 30CrMnSiNi2A steel considering effects of stress triaxiality | YU Wanqian, YU Rui, CUI Shitang | 031404 |
| On an array-sensor technology for measuring bubble jet load generated by underwater explosion | SHENG Zhenxin, LIU Jianhu, ZHANG Xianpi, GAO Tao, CHEN Jiangtao, YANG Jing | 031405 |
| Characteristics of interface defeat and penetration during the impact between a ceramic armor and a long-rod projectile | TAN Mengting, ZHANG Xianfeng, BAO Kuo, WEI Haiyang, HAN Guoqing | 031406 |
| An improved visco-hyperelastic constitutive behaviour of NEPE propellant at low and high strain rates | SUN Zhengwei, XU Jinsheng, ZHOU Changsheng, CHEN Xiong, DU Hongying | 031407 |
| Shock-induced energy release behaviors of reactive materials | WANG Dewu, REN Kerong, JIANG Zengrong, ZHAO Hongwei, CHEN Rong, GUO Baoyue | 031408 |

• Explosion Physics •

| | | |
|---|---|--------|
| Expansion fracture mode of 7075 aluminum ring under electromagnetic loading | YANG Chen, LIU Mingtao, TANG Tiegang, GUO Zhaoliang, FAN Cheng | 032201 |
| Numerical simulation of pre-shock desensitization in TATB-based heterogeneous explosive | HUANG Kuibang, LIU Yiru, HONG Tao, YU Xin, PENG Wenyang, SHU Junxiang | 032301 |

• Impact Dynamics •

| | | |
|--|--|--------|
| On the parameters of dynamic deformation and damage models of aluminum alloy 6008-T4 used for high-speed railway vehicles | GAO Yulong, SUN Xiaohong | 033101 |
| A simplified theoretical model for attack angle change of a hemispherically-nosed projectile while penetrating the stiffener of a ship plate frame | YAO Xiongliang, WANG Zhi, YE Shanjun, WU Ziqi, WANG Zhikai | 033301 |

• Applied Explosion Mechanics •

| | | |
|--|---|--------|
| Optimization of vehicle protection components based on reliability | WU Kai, WANG Xianhui, ZHOU Yunbo, BI Zheng, LI Mingxing | 035101 |
|--|---|--------|

• Relevant •

| | | |
|-------------------------|----------|--------|
| Academic advances | JING Lin | 039401 |
|-------------------------|----------|--------|