

爆 炸 与 冲 击

BAOZHA YU CHONGJI

1981 年 7 月创刊
2026 年 8 月
第 46 卷 第 8 期
(总第 274 期)

目 次

· 封面文章 ·

核级不锈钢 Z2CN18.10 的 Johnson-Cook 本构模型和失效准则	
..... 彭建, 郭泽华, 李兴华, 朱容赋, 韩学杰, 秦冬阳, 汤忠斌, 李玉龙	081001

· 学科交叉前沿 ·

动态荷载作用下钠离子电池的失效行为与安全性能分析	赵春风, 王薪淇, 杨正, 董钢, 陶常法	081501
--------------------------------	-----------------------	--------

· 爆炸物理 ·

燃料空气炸药云团的起爆裕度	贾大卫, 何超, 周涛, 管璇	082101
---------------------	-----------------	--------

· 冲击动力学 ·

超高性能混凝土板在中远距离爆炸载荷下的响应特性	徐世烺, 郑皓阳, 李庆华, 陈涛, 银星	083101
基于动静态力学试验下的红砂岩 Holmquist-Johnson-Cook 本构与数值模拟研究		
..... 周永旺, 汪维, 刘洁宁, 欧阳鑫, 刘君		083102
非金属内肋增强粉末式破门弹的侵彻效应与附带损伤特性	丁肇银, 郭志威, 周彤, 张振辉, 邹俊杰, 黄广炎	083301
考虑参数不确定性的水下爆炸冲击波荷载 Bayesian 建模与表征	李志, 邢莉莎, 高鑫, 周晓光	083401

· 实验技术与数值方法 ·

基于等熵曲线与 Hugoniot 曲线下的一种防奇点 Mie-Grüneisen 多介质混合模型		
..... 吴宗铎, 严谨, 庞建华, 孙一方, 张大朋		084201

· 应用爆炸力学 ·

远距离爆炸荷载作用下城市连续梁桥的动力响应和破坏机理	李拓亨, 杨尚霖, 钟连, 郑小红, 姚小虎	085101
不同外壳材料对高能产气剂孔壁压力的影响	王雁冰, 卢想	085201
槽腔深度对掘进断面后续破岩特性的影响	程兵, 袁炜其, 汪泉, 宗琦, 汪海波, 郑强强, 吕闹	085202
基于蒙特卡罗方法的孔间延时对爆破振动波叠加效应的影响		
..... 李洪超, 张啟鹏, 韩昊轩, 石玉莲, 沈成行, 张梅, 龙跃		085203
氢气/钛粉两相体系爆炸强度参数的变化规律	纪文涛, 肖海利, 吕先舒, 侯振海, 孟令宣, 王雅歌, 王燕	085401
基于 Box-Behnken 响应面的煤尘爆炸强度多因子耦合效应的实验研究	郭宏泽, 陈曦, 杨恒一	085402

EXPLOSION AND SHOCK WAVES

Vol. 46, No. 8, 2026 (Sum No. 274)

CONTENTS

• On the Cover •

Johnson-Cook constitutive model and failure criterion for nuclear-grade stainless steel Z2CN18.10	
..... PENG Jian, GUO Zehua, LI Xinghua, ZHU Rongfu, HAN Xuejie, QIN Dongyang, TANG Zhongbin, LI Yulong	081001

• Interdisciplinary Frontiers •

Analysis of failure behavior and safety performance on sodium-ion batteries under dynamic loads	
..... ZHAO Chunfeng, WANG Xinhao, YANG Zheng, DONG Gang, TAO Changfa	081501

• Explosion Physics •

Ignition margin of fuel-air explosive cloud	JIA Dawei, HE Chao, ZHOU Tao, GUAN Xuan	082101
---	---	--------

• Impact Dynamics •

Blast performance of ultra-high performance concrete panels under intermediate-to-far-field explosive loading		
..... XU Shilang, ZHENG Haoyang, LI Qinghua, CHEN Tao, YIN Xing		083101
Static and dynamic mechanical tests and numerical simulation on the Holmquist-Johnson-Cook constitutive model for red sandstone		
..... ZHOU Yongwang, WANG Wei, LIU Jiening, OUYANG Xin, LIU Jun		083102
Penetration efficiency and collateral damage characteristics of powder-type door-breaking projectile reinforced by non-metal inner ribs	DING Zhaoyin, GUO Zhiwei, ZHOU Tong, ZHANG Zhenhui, ZOU Junjie, HUANG Guangyan	083301
Bayesian modeling and characterization of underwater explosion shock wave loads with parameter uncertainty		
..... LI Zhi, XING Lisha, GAO Chu, ZHOU Xiaoguang		083401

• Experimental Techniques & Numerical Methods •

An anti-singularity Mie-Grüneisen mixture model based on isentropic and Hugoniot curves		
..... WU Zongduo, YAN Jin, PANG Jianhua, SUN Yifang, ZHANG Dapeng		084201

• Applied Explosion Mechanics •

Dynamic response and failure mechanism for urban continuous beam bridges under far-field blast loads		
..... LI Tuoheng, YANG Shanglin, ZHONG Lian, ZHENG Xiaohong, YAO Xiaohu		085101
Influence of different casing materials on borehole wall pressure of high-energy gas-generating agents		
..... WANG Yanbing, LU Xiang		085201
Influences of cutting cavity depth on subsequent rock breaking properties of driving sections		
..... CHENG Bing, YUAN Weiqi, WANG Quan, ZONG Qi, WANG Haibo, ZHENG Qiangqiang, LYU Nao		085202
Influence of delay time between holes on the time-frequency characteristics of blast vibration propagation based on Monte Carlo method	LI Hongchao, ZHANG Qipeng, HAN Haoxuan, SHI Yulian, SHEN Chengxing, ZHANG Mei, LONG Yue	085203
Variation of explosion strength parameters in hydrogen/titanium dust two-phase systems		
..... JI Wentao, XIAO Haili, LYU Xianshu, HOU Zhenhai, MENG Lingxuan, WANG Yage, WANG Yan		085401
Experimental study of the multi-factor coupling effect of coal dust explosion intensity based on Box-Behnken response surface		
..... GUO Hongze, CHEN Xi, YANG Hengyi		085402