

爆炸与冲击

BAOZHA YU CHONGJI

1981 年 7 月创刊

2010 年 7 月

第 30 卷 第 4 期

(总第 132 期)

目次

旋转爆轰的三维结构和侧向稀疏波的影响	张旭东, 范宝春, 归明月, 等	(337)
装药量及水深对水下爆炸气泡动态特性的影响	李 健, 荣吉利, 项大林	(342)
斜爆轰的胞格结构及横波传播	王爱峰, 赵 伟, 姜宗林	(349)
非线性侵彻动力过程的再生核质点法	赵光明, 宋顺成	(355)
921A 钢纯剪切帽状试件绝热剪切变形的数值模拟	李继承, 陈小伟, 陈 刚	(361)
激波诱导瓦斯爆炸的动力学特性及影响因素	梁运涛, 曾 文	(370)
基于小波包技术的爆破地震效应计算模型及安全判据研究	陈士海, 魏海霞, 张安康, 等	(377)
平面应变各向异性本构关系及在应力波传播模拟中的应用	黄 霞, 汤文辉, 蒋邦海	(383)
碳包覆镍/钴纳米颗粒的爆轰合成法	罗 宁, 李晓杰, 王小红, 等	(390)
舰船舷侧防护液舱舱壁对爆炸破片的防御作用	徐双喜, 吴卫国, 李晓彬, 等	(395)
逐孔起爆震动参数预报的 BP 神经网络模型	段宝福, 张 猛, 李俊猛	(401)
用移动元胞自动机法模拟杆式穿甲弹长细比对侵彻过程的影响	黄德武, 张 健	(407)
战斗部破片对目标打击迹线的计算方法	黄广炎, 冯顺山, 刘沛清	(413)
可压缩多介质流动的间断有限元方法	陈二云, 赵改平, 戴 韧, 等	(419)
含铝纤维复合炸药的能量输出和力学强度	廖学燕, 沈兆武, 姚保学, 等	(424)

研 究 简 报

金属材料 SHPB 实验数据处理的三波校核法	尚 兵, 胡时胜, 姜锡权	(429)
淬硬 45 钢在高温、高应变率下的动态力学性能及本构关系	李国和, 王敏杰	(433)
PTFE/Al 含能复合物的本构关系	徐松林, 阳世清, 张 炜, 等	(439)
2205 双相不锈钢/16MnR 爆炸复合板界面的微观组织	喻兰英, 罗 宏, 曾宪光	(445)

EXPLOSION AND SHOCK WAVES

Vol. 30, No. 4, 2010

(Sum No. 132)

CONTENTS

Three-dimensional structure of rotating detonation and effect of lateral rarefaction waves	
..... ZHANG Xu-dong, FAN Bao-chun, GUI Ming-yue, et al	(337)
Effects of charge mass and water depth on dynamic behaviors of an underwater explosion bubble	
..... LI Jian, RONG Ji-li, XIANG Da-lin	(342)
Cellular structure of oblique detonation and propagation of transverse wave	
..... WANG Ai-feng, ZHAO Wei, JIANG Zong-lin	(349)
An improved reproducing kernel particle method for nonlinear dynamical penetration process	
..... ZHAO Guang-ming, SONG Shun-cheng	(355)
Numerical simulations on adiabatic shear deformations of 921A steel pure shear hat-shaped specimens	
..... LI Ji-cheng, CHEN Xiao-wei, CHEN Gang	(361)
Kinetic characteristics and influencing factors of gas explosion induced by shock wave	
..... LIANG Yun-tao, ZENG Wen	(370)
Computational model and safety criterion of blasting vibration effect based on wavelet packet techniques	
..... CHEN Shi-hai, WEI Hai-xia, ZHANG An-kang, et al	(377)
Constitutive relation for anisotropic materials under plane-strain conditions and its application to stress-wave propagation simulation	
..... HUANG Xia, TANG Wen-hui, JIANG Bang-hai	(383)
Detonation synthesis of carbon-encapsulated nickel/cobalt nanoparticles	
..... LUO Ning, LI Xiao-jie, WANG Xiao-hong, et al	(390)
Protective effect of guarding fluid cabin bulkhead under attacking by explosion fragments	
..... XU Shuang-xi, WU Wei-guo, LI Xiao-bin, et al	(395)
A BP neural network model for forecasting of vibration parameters from hole-by-hole detonation	
..... DUAN Bao-fu, ZHANG Meng, LI Jun-meng	(401)
Influences of aspect ratios of rod projectiles on penetration process	
..... HUANG De-wu, ZHANG Jian	(407)
A visual C~(++) and Matlab-based computational method for shot-lines of warhead fragments to a target ...	
..... HUANG Guang-yan, FENG Shun-shan, LIU Pei-qing	(413)
A discontinuous finite element method for compressible multi-component flow	
..... CHEN Er-yun, ZHAO Gai-ping, DAI Ren, et al	(419)
Energy output and mechanical strength of aluminum-fibre-reinforced composite explosives	
..... LIAO Xue-yan, SHEN Zhao-wu, YAO Bao-xue, et al	(424)

Research notes

A three-wave coupling method for data treatment in SHPB experiments with metal samples	
..... SHANG Bing, HU Shi-sheng, JIANG Xi-quang	(429)
Dynamic mechanical properties and constitutive relationship of hardened steel (45HRC) under high temperature and high strain rate	
..... LI Guo-he, WANG Min-jie	(433)
A constitutive relation for a pressed PTFE/Al energetic composite material	
..... XU Song-lin, YANG Shi-qing, ZHANG Wei, et al	(439)
Microstructure of the bonding interface in an explosively clad 2205 duplex stainless steel-16MnR steel combination	
..... YU Lan-ying, LUO Hong, ZENG Xian-guang	(445)