

ISSN 1000-1964
CODEN ZKDXER

中国矿业大学

JOURNAL OF
CHINA UNIVERSITY OF
MINING & TECHNOLOGY

学
报

2018年7月 第4期 第47卷



4
2018

百种中国杰出学术期刊
国家新闻出版广电总局“百强报刊”
中国国际影响力优秀学术期刊
中国高校杰出科技期刊
万方数据

ZHONGGUO KUANGYE DAXUE XUEBAO

中国矿业大学学报

2018年第47卷第4期

目 次

- 动静组合荷载下砂岩冲击岩爆碎屑分形特征 何满潮, 王 烨, 苏劲松, 刘冬桥 (699)
降饱和度处理可液化地基振动台模型试验研究 章定文, 彭尔兴, 李 亭, 孙文博 (706)
离合式承压箱在复合地基静载荷试验中的数值仿真 方 磊, 范立雄, 唐新鸣 (713)
基于滑面应力状态的边坡安全系数确定方法探讨 吴顺川, 韩龙强, 李志鹏, 郭 超, 周建新 (719)
基于合成孔径聚焦技术的煤岩超声成像检测研究 李 力, 魏 伟, 夏 旺 (727)
北山花岗岩热损伤力学特性试验研究 李二兵, 王永超, 陈 亮, 刘 阳, 谭跃虎, 段建立, 潘仕坤, 王 健 (735)
泡沫混凝土单轴压缩下声发射特征试验研究 段力群, 董 璐, 马林建, 代晓青, 王 波, 杨绪普 (742)
岩质隧道开挖最大径向位移的室内模型试验 刘少峰, 朱平华, 胡 坤, 苏永华 (748)
桩锚支护体系中锚杆冻胀响应规律试验研究 李 亭, 周国庆, 刘书幸, 王建州, 鲍 强, 酒逢源, 王密田, 徐敬豪 (754)
应变软化与扩容特性极弱胶结围岩弹塑性分析 孟庆彬, 韩立军, 乔卫国, 浦 海, 李 浩 (760)
巴东组岩石加卸荷力学性质及卸荷本构模型 温 韶, 唐辉明, 范志强, 蔡 毅, 汪丁建 (768)
考虑黏聚力及地震力的浅埋偏压隧道围岩压力 张治国, 姜蕴娟, 刘 明, 宫剑飞 (780)
偏压基坑工程设计、施工与受力变形特性研究进展 刘 波, 章定文, 席培胜 (791)
工作面倾角对综放开采散体顶煤放出规律的影响 张锦旺, 王家臣, 魏炜杰 (805)
深季节冻土地区基坑工程水平冻胀力试验研究 王建州, 刘书幸, 周国庆, 鲍 强, 陈 拓, 酒逢源, 王密田, 徐敬豪 (815)
变角剪切下煤样力学特征及声发射特性 肖福坤, 侯志远, 何 君, 刘 刚 (822)
软弱围岩巷道变形机理及返修控制技术 陈顺满, 吴爱祥, 王少勇, 陈 勋, 王 勇 (830)
AMC 固化高液限黏土的强度及孔隙特征研究 郭 乾, 魏明俐, 杜广印, 薛皓辰, 刘松玉 (838)
土岩组合地质条件下适宜嵌岩深度分析 马 康, 刘 辉, 李维滨 (846)
水平荷载下劲性复合管桩的承载特性研究 王安辉, 章定文, 刘松玉, 邓亚光 (853)
深处理可液化地层单桩水平承载性状研究 李洪江, 童立元, 刘松玉, 杜广印 (862)
交通荷载作用下软黏土的耗散能开展特征分析 沈 扬, 王俊健, 刘汉龙, 王钦城 (868)
级配散粒体循环荷载下变形特性的离散元模拟 孙逸飞, 宋顺翔, 高玉峰 (874)
活性 MgO-粉煤灰软土固化材料强度与机理研究 王东星, 王宏伟, 肖 杰, 伍林峰 (879)
基于双折减系数法的楔形体稳定性分析 翁其能, 曾 彪, 王林峰, 黄 科, 冯 登 (885)
黄土-风化岩接触面型斜坡动力响应研究 王 平, 王会娟, 许书雅, 于一帆, 王丽丽 (893)
基于离散元法的沥青混合料细观特性分析 杨盼盼, 肖 鹏, 丁 燕, 郑佳辉 (900)
南京地铁基坑支护结构的 MSD 综合刚度及变形预估研究 徐洪钟, 孙鹏鹏, 崔文森, 孙义杰 (907)
方钢管焊接 T 型节点轴向滞回性能分析 常鸿飞, 罗 梓, 徐 玮, 孔 伟 (913)
参数非定常的软岩非线性黏弹性蠕变模型 刘开云, 薛永涛, 周 辉 (921)

Contents

Analysis of fractal characteristics of fragment of sandstone impact rock burst under static and dynamic coupled loads	HE Manchao, WANG Yang, SU Jinsong, LIU Dongqiao	(699)
Shaking table tests on induced partial saturation by chemical reaction for liquefaction mitigation	ZHANG Dingwen, PENG Erxing, LI Ting, SUN Wenbo	(706)
Numerical simulation in clutch bearing cell of static load test on composite foundation	FANG Lei, FAN Lixiong, TANG Xinming	(713)
Discussion on the methods for determining slope safety factor based on stress state of the sliding surface	WU Shunchuan, HAN Longqiang, LI Zhipeng, GUO Chao, Zhou Jianxin	(719)
Coal-rock ultrasonic imaging and testing research based on synthetic aperture focusing technology	LLi, WEI Wei, XIA Wang	(727)
Experimental study of mechanical properties of Beishan granite's thermal damage	LI Erbing, WANG Yongchao, CHEN Liang, LIU Yang, TAN Yuehu, DUAN Jianli, PU Shikun, WANG Jian	(735)
Experimental study of acoustic emission characteristics of foamed concrete under uniaxial compression	DUAN Liqun, DONG Lu, MA Linjian, DAI Xiaoqing, WANG Bo, YANG Xupu	(742)
Laboratory model test on maximum radial displacement of the rock tunnel excavation	LIU Shaofeng, ZHU Pinghua, HU Kun, SU Yonghua	(748)
Experimental study of frost heaving response of bolt in pile-anchor supporting system	LI Ting, ZHOU Guoqing, LIU Shuxing, WANG Jianzhou, BAO Qiang, JIU Fengyuan, WANG Mitian, XU Jinghao	(754)
Elastic-plastic analysis of the very weakly cemented surrounding rock considering characteristics of strain softening and expansion	MENG Qingbin, HAN Lijun, QIAO Weiguo, PU Hai, LI Hao	(760)
Loading and unloading mechanical properties of rocks of Badong formation and its unloading constitutive model	WEN Tao, TANG Huiming, FAN Zhiqiang, CAI Yi, WANG Dingjian	(768)
Rock pressure of shallow unsymmetrical-loading tunnels considering the cohesion and earthquake action	ZHANG Zhiguo, JIANG Yunjuan, LIU Ming, GONG Jianfei	(780)
Review on design, construction, stress and deformation characteristics of asymmetrically loaded deep excavation	LIU Bo, ZHANG Dingwen, XI Peisheng	(791)
Effect of face dip angle on the drawing mechanism in longwall top-coal caving mining	ZHANG Jinwang, WANG Jiachen, WEI Weijie	(805)
Model experiment on frost-heave force of foundation pit at deepseasonal frozen regions	WANG Jianzhou, LIU Shuxing, ZHOU Guoqing, BAO Qiang, CHEN Tuo, JIU Fengyuan, WANG Mitian, XU Jinghao	(815)
Mechanical characteristics and acoustic emission characteristics of coal samples under variable angle shear	XIAO Fukun, HOU Zhiyuan, HE Jun, LIU Gang	(822)
Deformation mechanism and repair control technology of soft surrounding rock roadway	CHEN Shunman, WU Aixiang, WANG Shaoyong, CHEN Xun, WANG Yong	(830)
Research on strength behavior and micro-mechanism of AMC stabilized high liquid limit clay	GUO Qian, WEI Mingli, DU Guangyin, XUE Haochen, LIU Songyu	(838)
Appropriate rock-socketed depth under geological conditions of soil and rock combination	MA Kang, LIU Hui, LI Weibin	(846)
Bearing capacity behavior of strength composite pipe pile subjected to lateral loading	WANG Anhui, ZHANG Dingwen, LIU Songyu, DENG Yaguang	(853)
Study of horizontal bearing properties of single piles in deep liquefiable soils after treatment	LI Hongjiang, TONG Liyuan, LIU Songyu, DU Guangyin	(862)
Dissipation energy analysis of pore pressure and deformation characteristics of soft clay under traffic loads	SHEN Yang, WANG Junjian, LIU Hanlong, WANG Qincheng	(868)
Discrete element simulation of the grading dependence of the cyclic behavior of granular aggregates	SUN Yifei, SONG Shunxiang, GAO Yufeng	(874)
Strength and micromechanism of reactive MgO-activated fly ash as an alternative soft soil stabilizer	WANG Dongxing, WANG Hongwei, XIAO Jie, WU Linfeng	(879)
Stability analysis of wedge based on double reduction factor method	WENG Qineng, ZENG Biao, WANG Linfeng, HUANG Ke, FENG Deng	(885)
Dynamic response of loess-weathered rock contact surface slope	WANG Ping, WANG Huijuan, XU Shuya, YU Yifan, WANG Lili	(893)
Microstructure characteristics analysis of asphalt mixture based on the discrete element method	YANG Panpan, XIAO Peng, DING Yan, ZHENG Jiahui	(900)
MSD synthetic system stiffness and deformation prediction of support structure for deep excavation in Nanjing subway	XU Hongzhong, SUN Pengpeng, CUI Wensen, SUN Yijie	(907)
Axial hysteretic behavior of welded steel square tubular T-joints	CHANG Hongfei, LUO Zi, XU Wei, KONG Wei	(913)
A nonlinear viscoelastic-plastic creep model of soft rock with unsteady parameters	LIU Kaiyun, XUE Yongtao, ZHOU Hui	(921)

本刊为

中文核心期刊

《中国科学引文数据库》(CSCD) 源刊

中国科技论文统计源期刊(CSTPCD)

《工程索引》(EI Compendex) 收录期刊

Scopus 收录期刊

俄罗斯《文摘杂志》(AJ) 收录期刊

美国《化学文摘》(CA)、《剑桥科学文摘》(CSA) 收录期刊

英国《煤文摘》(Coal Abstracts)、《煤文精选》(CH) 收录期刊

中国矿业大学
学报

ZHONGGUO KUANGYE DAXUE XUEBAO

(双月刊, 1955年创刊)

第47卷 第4期 (总第223期) 2018年7月

Journal of China University of
Mining & Technology

(Bimonthly, Started in 1955)

Vol.47 No.4(Series No.223) Jul.2018

主管单位 中华人民共和国教育部

Administred by Ministry of Education, P.R.China

主办单位 中国矿业大学

Sponsored by China University of Mining and Technology

编辑出版 中国矿业大学学报编辑部

Edited and Published by Editorial Board of Journal of CUMT

(江苏徐州 221008)

(Xuzhou, Jiangsu 221008)

主编 骆振福

Editor in Chief LUO Zhenfu

印刷 中矿大印发科技有限公司

Distributed by China Publication Foreign Trading

订阅 全国邮局 邮发代号 28-73

Corporation (P.O.Box 782, Beijing, China)

国外发行 中国出版对外贸易总公司

(北京 782 信箱)



中国标准连续出版物号: ISSN 1000-1964
CN 32-1152/TD

<http://zgkd.chinajournal.net.cn>
<http://xb.cumt.edu.cn>
E-mail:journal@cumt.edu.cn

定价: 30.00元

ISSN 1000-1964



07>

9 771000 196185