

湖北省精品期刊
中国精品科技期刊
中文核心期刊 EI收录期刊
中国最具国际影响力学术期刊
中国科技期刊卓越行动计划梯队期刊

ISSN 1000-7598
CN 42-1199/O3



Q K 2 0 0 6 5 3 5

岩土力学

Rock and Soil Mechanics

Vol.41 No.1

2020

中国科学院武汉岩土力学研究所 主办

 科学出版社 出版

ISSN 1000-7598



01>

9 771000 759205

基础理论与实验研究

- 满流条件下管道破损诱发渗流侵蚀的试验研究.....刘成禹, 陈博文, 罗洪林, 等 (1)
- 考虑 Hansbo 渗流的饱和黏土一维弹塑性固结分析.....刘忠玉, 夏洋洋, 张家超, 等 (11)
- 南沙珊瑚砂的动剪切模量和阻尼比特性试验研究.....梁 珂, 何 杨, 陈国兴 (23)
- 压实黏土三轴压缩变形过程中的渗透性变化规律.....王 刚, 韦林邑, 魏 星, 等 (32)
- 膨润土热传导性能的温度效应.....徐云山, 孙德安, 曾召田, 等 (39)
- 基于 3D 打印的含复杂节理岩石直剪特性及破坏机制研究.....王培涛, 黄正均, 任奋华, 等 (46)
- 常法向刚度条件下岩石节理剪切-渗流特性试验研究.....夏才初, 喻强锋, 钱 鑫, 等 (57)
- 高静水压力压实作用下疏松砂岩渗透特性演化及其机制.....杨福见, 胡大伟, 田振保, 等 (67)
- 钙质砂与钢界面循环剪切刚度与阻尼比的试验研究.....芮圣洁, 国 振, 王立忠, 等 (78)
- 考虑颗粒强度尺寸效应的原型堆石料破碎特性研究.....王 峰, 张建清 (87)
- 大位移条件下水平受荷单桩的简明弹塑性计算方法.....邓 涛, 林聪煜, 柳志鹏, 等 (95)
- 文克尔地基模型下液化土桩基水平振动响应分析.....熊 辉, 杨 丰 (103)
- 基于 3D-ILC 含偏心内裂纹半圆弯拉断裂特性研究.....张志韬, 王海军, 汤 雷, 等 (111)
- 含碳酸盐混合砂的三轴剪切试验研究.....李小刚, 朱长歧, 崔 翔, 等 (123)
- 基于塑性损伤的黏土岩力学特性研究.....李翻翻, 陈卫忠, 雷 江, 等 (132)
- 加荷条件下软黏土的孔隙演化特征.....孙 红, 宋春雨, 滕慕薇, 等 (141)
- 均质砂土中水平简谐荷载与扭矩联合受荷单桩内力、位移分析.....覃玉兰, 邹新军, 曹 雄 (147)
- 花岗岩破裂过程声发射关键信号时频特征试验研究.....张艳博, 孙 林, 姚旭龙, 等 (157)
- 采煤工作面层状结构底板采动稳定及破坏深度的圆弧滑动解.....鲁海峰, 孟祥帅, 颜 伟, 等 (166)
- 汶马高速公路千枚岩堆积体岩块定向性试验研究.....赵晓彦, 万宇豪, 张肖兵 (175)
- 增压式真空预压吹填淤泥孔压实时响应及加固机制初探.....史 吏, 胡东东, 蔡袁强, 等 (185)
- 考虑孔隙水压力及非线性 Mohr-Coulomb 破坏准则下浅埋土质隧道三维塌落机制的上限分析.....于 丽, 吕 城, 段儒禹, 等 (194)
- 珊瑚骨架灰岩三轴压缩声发射特性研究.....郑 坤, 孟庆山, 汪 稔, 等 (205)
- 基于级配方程的粗粒料压实特性试验研究.....吴二鲁, 朱俊高, 郭万里, 等 (214)

- 盾构隧道下穿管道施工引起的管-土相互作用研究.....可文海, 管凌霄, 刘东海, 等 (221)
无黏性土压缩模型及其验证.....王 龙, 朱俊高, 郭万里, 等 (229)

岩土工程研究

- 压气储能浅埋地下储气库性能试验研究.....蒋中明, 李 鹏, 赵海斌, 等 (235)
高水头下大型导流洞新型堵头-围岩相互作用规律与安全评价.....翁永红, 张 练, 徐唐锦, 等 (242)
新型预应力路基水平附加应力计算的图表法.....艾 希, 冷伍明, 徐 方, 等 (253)
含软弱土层的深厚河床覆盖层坝基动力特性研究.....余 挺, 邵 磊 (267)
抗滑桩受荷段前侧有限范围地层的地基抗力系数取值方法.....孙来宾, 肖世国 (278)
盾构掘进、离开施工阶段对地表变形的影响范围及量化预测.....王忠凯, 徐光黎 (285)
黄土地震动响应特征分析.....夏 坤, 董 林, 蒲小武, 等 (295)
高温冻土地区高等级公路片石路基降温效果分析.....王青志, 房建宏, 晁 刚 (305)

数值分析

- 饱和多孔热弹性介质中 Rayleigh 波传播特性分析.....周凤玺, 柳鸿博, 蔡袁强 (315)
基于自适应贝叶斯更新方法的岩土参数概率分布推断.....蒋水华, 冯泽文, 刘 贤, 等 (325)

测试技术

- 流变应力恢复法压力传感器传感单元方位布设研究.....刘泉声, 罗慈友, 朱元广, 等 (336)
多功能水合物沉积物三轴试验系统的研制与应用.....周家作, 韦昌富, 魏厚振, 等 (342)
基于多频钻孔声呐的溶洞探测方法研究.....汪进超, 王川婴, 唐新建, 等 (353)

简 讯

- 《岩土力学》第九届编委会第二次会议纪要.....(174)
致谢审稿专家.....(361)
书评——郑宏著《数值流形法》(362)
《岩土力学》征稿简则.....(封二)

期刊基本参数: CN42-1199/O3*1979*m*A4*362*zh*P* ¥ 60.00*2000*39*2020-01

本期责任编辑: 杨为民 排版: 胡惠珍

CONTENTS

Experimental study of seepage erosion induced by pipeline damage under full pipe flow condition.....	LIU Cheng-yu, CHEN Bo-wen, LUO Hong-lin, et al (1)
One-dimensional elastic visco-plastic consolidation analysis of saturated clay considering Hansbo's flow.....	LIU Zhong-yu, XIA Yang-yang, ZHANG Jia-chao, et al (11)
Experimental study of dynamic shear modulus and damping ratio characteristics of coral sand from Nansha Islands.....	LIANG Ke, HE Yang, CHEN Guo-xing (23)
Permeability evolution of compacted clay during triaxial compression.....	WANG Gang, WEI Lin-yi, WEI Xing, et al (32)
Temperature effect on thermal conductivity of bentonites.....	XU Yun-shan, SUN De-an, ZENG Zhao-tian, et al (39)
Research on direct shear behaviour and fracture patterns of 3D-printed complex jointed rock models.....	WANG Pei-tao, HUANG Zheng-jun, REN Fen-hua, et al (46)
Experimental study of shear-seepage behaviour of rock joints under constant normal stiffness.....	XIA Cai-chu, YU Qiang-feng, QIAN Xin, et al (57)
Evolution and mechanism of permeability of unconsolidated sandstone under high hydrostatic pressure compaction.....	YANG Fu-jian, HU Da-wei, TIAN Zhen-bao, et al (67)
Experimental study of cyclic shear stiffness and damping ratio of carbonate sand-steel interface.....	RUI Sheng-jie, GUO Zhen, WANG Li-zhong, et al (78)
Study of breakage behaviour of original rockfill materials considering size effect on particle strength.....	WANG feng, ZHANG Jian-qing (87)
A simplified elastoplastic method for laterally loaded single pile with large displacement.....	DENG Tao, LIN Cong-yu, LIU Zhi-peng, et al (95)
Horizontal vibration response analysis of pile foundation in liquefied soil under Winkler foundation model.....	XIONG Hui, YANG Feng (103)
Study of fracture characteristics of semi-circular bending with internal crack based on 3D-ILC.....	ZHANG Zhi-tao, WANG Hai-jun, TANG Lei, et al (111)
Experimental study of triaxial shear characteristics of carbonate mixed sand.....	LI Xiao-gang, ZHU Chang-qing, CUI Xiang, et al (123)
Study of mechanical properties of claystone based on plastic damage.....	LI Fan-fan, CHEN Wei-zhong, LEI Jiang, et al (132)
Pore evolution characteristics of soft clay under loading.....	SUN Hong, SONG Chun-yu, TENG Mu-wei, et al (141)
Internal forces and deformations of a single pile in uniform sand under combined action of horizontal harmonic load and torque.....	QIN Yu-lan, ZOU Xin-jun, CAO Xiong (147)
Experimental study of time-frequency characteristics of acoustic emission key signals during granite fracture.....	ZHANG Yan-bo, SUN Lin, YAO Xu-long, et al (157)
Circular sliding solution of mining stability and failure depth of floor layered structure on coal face.....	LU Hai-feng, MENG Xiang-shuai, YAN Wei, et al (166)
Experimental study of fragment orientation of phyllite talus at Whenchuan-Maerkang expressway.....	ZHAO Xiao-yan, WAN Yu-hao, ZHANG Xiao-bing (175)

Preliminary study of real-time pore water pressure response and reinforcement mechanism of air-booster vacuum preloading treated dredged slurry.....	SHI Li, HU Dong-dong, CAI Yuan-qiang, et al (185)
Upper bound limit analysis of three-dimensional collapse mechanism of shallow buried soil tunnel under pore pressure based on nonlinear Mohr-Coulomb criterion.....	YU Li, LÜ Cheng, DUAN Ru-yu, et al (194)
Experimental study of acoustic emission characteristics of coral skeleton limestone under triaxial compression.....	ZHENG Kun, MENG Qing-shan, WANG Ren, et al (205)
Experimental study of compaction characteristics of coarse-grained soil based on gradation equation.....	WU Er-lu, ZHU Jun-gao, GUO Wan-li, et al (214)
Research on upper pipeline-soil interaction induced by shield tunnelling.....	KE Wen-hai, GUAN Ling-xiao, LIU Dong-hai, et al (221)
Compression model for cohesionless soils and its verification.....	WANG Long, ZHU Jun-gao, GUO Wan-li, et al (229)
Experimental study of performance of shallow rock cavern for compressed air energy storage.....	JIANG Zhong-ming, LI Peng, ZHAO Hai-bin, et al (235)
Safety evaluation on interaction of new plug structure and surrounding rock mass under high water head.....	WENG Yong-hong, ZHANG Lian, XU Tang-jin, et al (242)
Graphic method for computing horizontal additional stress in a new prestressed subgrade.....	AI Xi, LENG Wu-ming, XU Fang, et al (253)
Study of dynamic characteristics of dam foundation on deep riverbed overburden with soft soil layer.....	YU Ting, SHAO Lei (267)
Evaluation method for elastic foundation coefficient of finite downslope soil against loading segment of stabilizing piles.....	SUN Lai-bin, XIAO Shi-guo (278)
Influence range and quantitative prediction of surface deformation during shield tunnelling and exiting stages.....	WANG Zhong-kai, XU Guang-li (285)
Earthquake response characteristics of loess tableland.....	XIA Kun, DONG Lin, PU Xiao-wu, et al (295)
Analysis of cooling effect of block-stone expressway embankment in warm temperature permafrost region.....	WANG Qing-zhi, FANG Jian-hong, CHAO Gang (305)
Analysis of propagation characteristics of Rayleigh waves in saturated porothermoelastic media.....	ZHOU Feng-xi, LIU Hong-bo, CAI Yuan-qiang (315)
Inference of probability distributions of geotechnical parameters using adaptive Bayesian updating approach.....	JIANG Shui-hua, FENG Ze-wen, LIU Xian, et al (325)
Research on orientation layout of pressure sensing units by rheological stress recovery method.....	LIU Quan-sheng, LUO Ci-you, ZHU Yuan-guang, et al (336)
Development and application of multi-functional triaxial test system for hydrate-bearing sediments.....	ZHOU Jia-zuo, WEI Chang-fu, WEI Hou-zhen, et al (342)
Research on karst cavity detection method based on multi-frequency borehole sonar.....	WANG Jin-chao, WANG Chuan-ying, TANG Xin-jian, et al (353)

《岩土力学》第九届编委会和编辑部组成人员名单

主编 顾问编委 委员	孔令伟	白世伟	陈正汉	郑颖人	葛修润		
	王思敬	王浩	王川婴	王水林	王立忠	王明年	王建华
	马巍	介玉新	邓建辉	孔令伟	尹光志	卢应发	白冰
	韦昌富	朱长岐	任伟中	刘建	刘汉龙	刘传正	刘忠玉
	冯守中	邬爱清	孙德安	杨光华	杨启贵	杨典森	杨春和
	李小春	李术才	李邵军	李典庆	李建林	李建春	李海波
	李新平	何满潮	邹维列	汪稔	张嘎	张友良	张玉军
	张建海	张勇慧	张家发	张强勇	陈健	陈卫忠	陈仁朋
	陈晓平	陈善雄	邵生俊	周平	周伟	周辉	周正明
	周顺华	郑刚	郑宏	郑俊杰	金衍	孟庆山	胡大伟
	侯公羽	施斌	姚仰平	姚海林	徐长节	高玉峰	唐春安
	梅国雄	黄宏伟	黄茂松	曹文贵	盛谦	梁冰	章为民
	温彦峰	蒋明镜	焦玉勇	蔡袁强	廖红建	薛强	韩煊
编辑部成员	周平	杨为民	郭茜	丁晓			

Editorial Board of Rock and Soil Mechanics (2017 – 2021)

Editor-in-chief	Lingwei Kong						
Advisors	Sijing Wang	Shiwei Bai	Zhenghan Chen	Yingren Zheng	Xiurun Ge		
Editorial Board Members	Wei Ma	Hao Wang	Chuanying Wang	Shuilin Wang	Lizhong Wang	Mingnian Wang	Jianhua Wang
	Changfu Wei	Yuxin Jie	Jianhui Deng	Lingwei Kong	Guangzhi Yin	Yingfa Lu	Bing Bai
	Shouzhong Feng	Changqi Zhu	Weizhong Ren	Jian Liu	Hanlong Liu	Chuanzheng Liu	Zhongyu Liu
	Aiqing Wu	Tingkai Nian	Dean Sun	Guanghua Yang	Qigui Yang	Diansen Yang	Chunhe Yang
	Xiaochun Li	Shucai Li	Shaojun Li	Dianqing Li	Jianlin Li	Jianchun Li	Haibo Li
	Xinping Li	Manchao He	Weilie Zou	Ren Wang	Ga Zhang	Youliang Zhang	Yujun Zhang
	Jianhai Zhang	Yonghui Zhang	Jiafa Zhang	Qiangyong Zhang	Jian Chen	Weizhong Chen	Renpeng Chen
	Xiaoping Chen	Shanxiang Chen	Shengjun Shao	Ping Zhou	Wei Zhou	Hui Zhou	Zhengming Zhou
	Shunhua Zhou	Gang Zheng	Hong Zheng	Junjie Zheng	Yan Jin	Qingshan Meng	Dawei Hu
	Gongyu Hou	Bin Shi	Yangping Yao	Hailin Yao	Changjie Xu	Yufeng Gao	Chunan Tang
	Guoxiong Mei	Hongwei Huang	Maosong Huang	Wengui Cao	Qian Sheng	Bing Liang	Weimin Zhang
	Yanfeng Wen	Mingjing Jiang	Yuyong Jiao	Yuanqiang Cai	Hongjian Liao	Qiang Xue	Xuan Han
Editorial Staff	Ping Zhou	Weimin Yang	Qian Guo	Xiao Ding			

岩 土 力 学

Rock and Soil Mechanics

(1979 年创刊 月刊 每月 10 日出版)
2020 年 1 月 第 41 卷 第 1 期 (总 311)

(Monthly, Started in 1979)
Vol.41 No.1 (Total 311) Jan. 2020

主管单位	中国科学院	Competent Authority by: Chinese Academy of Sciences
主办单位	中国科学院武汉岩土力学研究所	Sponsored by: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences
编辑出版	科学出版社	Edited and Published by: Science Press
主 编	孔令伟	Editor-in-Chief: Lingwei Kong
地 址	武汉市武昌小洪山 中国科学院武汉岩土力学研究所 430071	Address: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, Wuhan 430071, China
印 刷	武汉中科兴业印务有限公司	Printed by: Wuhan Zhongkexingye Print Co., Ltd.
国内发行	湖北省邮政报刊发行局	Distributed by: Hubei Bureau for Distribution of Newspapers and Journals
国外发行	中国国际图书贸易总公司 (中国国际书店) 北京 399 信箱	Distributed Abroad by: China International Book Trading Corporation (GUOJI SHUDIAN) P. O. Box 399, Beijing, China
电 话:	(027) 87198484 87199252 (传真)	Tel.: (027) 87198484 87199252 (Fax)
E-mail:	ytlx@whrsm.ac.cn	http://yltx.whrsm.ac.cn/ , yltx.chinajournal.net.cn/

ISSN 1000-7598 广告经营许可证号: 4200003300074 邮发代号: 38-383 国外代号: Q4097 RMB: ¥60
CN 42-1199/O3 Advertising License Number: 4200003300074 Postal Distributing Code: 38-383 (China), Q4097 (Overseas) USD: \$ 60