

# 岩土工程学报

Chinese Journal of Geotechnical Engineering

第 43 卷

Vol. 43

第 4 期 (总 363 期)

No. 4 (Total 363)

# 4

# 2021

主 办

中国水利学会  
中国力学学会  
中国水力发电工程学会

中国土木工程学会  
中国建筑学会  
中国振动工程学会

ISSN 1000-4548



目 次

论 文

不同应力路径下钙质砂力学特性的排水三轴试验研究 ..... 张季如, 罗明星, 彭伟珂, 张弼文 (593)

全局等效线性化土层地震反应分析方法 ..... 孙 锐, 袁晓铭 (603)

拉哇水电站上游围堰渗流与应力变形动态耦合仿真分析 ..... 吴梦喜, 宋世雄, 吴文洪 (613)

分体柱在地下车站结构中的减震效果研究 ..... 许成顺, 汪洋筱珊, 杜修力, 许紫刚, 张梓鸿 (624)

水-岩作用下断续节理砂岩力学特性劣化机理 ..... 邓华锋, 齐 豫, 李建林, 姜 桥, Eleyas Assefa, 李新哲 (634)

邻近地层损失对地下挡土结构土压力与地表沉降影响试验研究 ..... 芮 瑞, 翟玉新, 徐杨青, 何 清 (644)

地震下大断面盾构隧道接缝力学及防水性能研究 ..... 张稳军, 曹文振 (653)

不同含水率冻融后红砂岩剪切蠕变特性 ..... 陈国庆, 简大华, 陈宇航, 万 亿, 林之恒 (661)

纤维加筋土坯的蒸发过程及抗拉强度特性 ..... 荣德政, 唐朝生, 曾 浩, 程 青, 李昊达, 施 斌 (670)

基于钻进过程指数定量评价岩体完整性原位试验研究 ..... 曹瑞琅, 王玉杰, 赵宇飞, 汪小刚, 和孙文, 彭林军 (679)

金沙江结合带高位远程滑坡失稳机理及减灾对策研究——以金沙江色拉滑坡为例 ..... 朱赛楠, 殷跃平, 王 猛, 朱 茂, 王晨辉, 王文沛, 李俊峰, 赵 慧 (688)

浅埋地下结构耐震时程分析法最优持时研究 ..... 钟紫蓝, 甄立斌, 陈 群, 赵 密, 杜修力 (698)

赤泥渗滤液对改性 GCL 防渗性能的影响 ..... 傅贤雷, 杜延军, 尤星源, 杨玉玲, 姜哲元 (706)

排水管堵塞引起的高铁隧道结构变形与渗流场特征模拟试验研究 ..... 李林毅, 阳军生, 高 超, 王树英, 王子建, 相懋龙 (715)

基于平行黏结水弱化模型的页岩吸水软化离散元模拟 ..... 胡训健, 卞 康, 刘 建, 谢正勇, 陈 明, 李冰洋, 岑 越, 刘振平 (725)

非饱和土中圆柱孔扩张问题不排水解答及吸力影响效应分析 ..... 张亚国, 翟张辉, 梁发云, 李同录 (734)

基于红外热成像技术的土体水分蒸发过程研究 ..... 林宗泽, 唐朝生, 曾 浩, 程 青, 田本刚, 施 斌 (743)

短 文

分舱板对海上风电复合筒型基础承载特性的影响研究 ..... 蔡正银, 王清山, 关云飞, 韩 迅, 李文轩 (751)

土工格室条带拉伸力学特性试验研究 ..... 杨广庆, 左 政, 刘 英, 王志杰, 王 贺, 于 凡 (760)

上覆海水层对自由场基本周期影响的离心模型试验研究 ..... 兰景岩, 宋锡俊, 王 婷 (768)

黏土片与球状颗粒间范德华作用的简便计算方法 ..... 申志福, 高 峰, 蒋明镜, 王志华, 刘 璐, 高洪梅 (776)

盐溶液饱和高庙子膨润土的强度特性 ..... 郑新江, 徐永福 (783)

简 讯

《岩土工程学报》入围世界土木工程类期刊 Q1 区 ..... (633)

第三届全国软土工程学术会议第一号通知(征文) ..... (669)

彩色插图索引 ..... (687)

《岩土工程学报》征订启事 ..... (705)

《岩土工程学报》第十二届编委会名单 ..... (扉页 I)

征稿简则 ..... (扉页 II)

## CONTENTS

### PAPERS

- Drained triaxial tests on mechanical properties of calcareous sand under various stress paths ..... ZHANG Ji-ru, LUO Ming-xing, PENG Wei-ke, ZHANG Bi-wen (593)
- Holistic equivalent linearization approach for seismic response analysis of soil layers ..... SUN Rui, YUAN Xiao-ming (603)
- Dynamic coupled simulation analysis of seepage and stress deformation of upstream cofferdam of Lava Hydropower Station ..... WU Meng-xi, SONG Shi-xiong, WU Wen-hong (613)
- Seismic mitigation effects of split columns in underground station structures ..... XU Cheng-shun, WANG Yang-xiaoshan, DU Xiu-li, XU Zi-gang, ZHANG Zi-hong (624)
- Degradation mechanism of intermittent jointed sandstone under water-rock interaction ..... DENG Hua-feng, QI Yu, LI Jian-lin, JIANG Qiao, ELEYAS Assefa, LI Xin-zhe (634)
- Experimental investigations on influences of ground loss on earth pressure and settlement of adjacent underground retaining structures ..... RUI Rui, ZHAI Yu-xin, XU Yang-qin, HE Qing (644)
- Mechanical and waterproof performances of joints of shield tunnels with large cross-section under earthquakes ..... ZHANG Wen-jun, CAO Wen-zhen (653)
- Shear creep characteristics of red sandstone after freeze-thaw with different water contents ..... CHEN Guo-qing, JIAN Da-hua, CHEN Yu-hang, WAN Yi, LIN Zhi-heng (661)
- Evaporation process and tensile behavior of fiber-reinforced rammed earth ..... RONG De-zheng, TANG Chao-sheng, ZENG Hao, CHENG Qing, LI Hao-da, SHI Bin (670)
- In-situ tests on quantitative evaluation of rock mass integrity based on drilling process index ..... CAO Rui-lang, WANG Yu-jie, ZHAO Yu-fei, WANG Xiao-gang, HE Sun-wen, PENG Lin-jun (679)
- Instability mechanism and disaster mitigation measures of long-distance landslide at high location in Jinsha River junction zone: case study of Sela landslide in Jinsha River, Tibet ..... ZHU Sai-nan, YIN Yue-ping, WANG Meng, ZHU Mao, WANG Chen-hui, WANG Wen-pei, LI Jun-feng, ZHAO Hui (688)
- Optimal duration of endurance time acceleration functions for shallow buried underground structures ..... ZHONG Zi-lan, ZHEN Li-bin, CHEN Qun, ZHAO Mi, DU Xiu-li (698)
- Influences of red mud leachates on hydraulic performance of a modified geosynthetic clay liner ..... FU Xian-lei, DU Yan-jun, YOU Xing-yuan, YANG Yu-ling, JIANG Zhe-yuan (706)
- Simulation tests on structural deformation and seepage field of high-speed railway tunnels under drainage clogging ..... LI Lin-yi, YANG Jun-sheng, GAO Chao, WANG Shu-ying, WANG Zi-jian, XIANG Mao-long (715)
- Discrete element simulation of shale softening based on parallel-bonded water-weakening model ..... HU Xun-jian, BIAN Kang, LIU Jian, XIE Zheng-yong, CHEN Ming, LI Bing-yang, CEN Yue, LIU Zhen-ping (725)
- Critical cylindrical cavity expansion in unsaturated soil under undrained conditions incorporating suction effects ..... ZHANG Ya-guo, ZHAI Zhang-hui, LIANG Fa-yun, LI Tong-lu (734)
- Soil evaporation based on infrared thermal imaging technology ..... LIN Zong-ze, TANG Chao-sheng, ZENG Hao, CHENG Qing, TIAN Ben-gang, SHI Bin (743)

### NOTES

- Influences of bulkheads on bearing characteristics of composite bucket foundation of offshore wind turbines ..... CAI Zheng-yin, WANG Qing-shan, GUAN Yun-fei, HAN Xun, LI Wen-xuan (751)
- Experimental investigations on tensile mechanical properties of geocell strips ..... YANG Guang-qing, ZUO Zheng, LIU Ying, WANG Zhi-jie, WANG He, YU Fan (760)
- Centrifugal model tests on influences of overlying sea layer on basic period of free field ..... LAN Jing-yan, SONG Xi-jun, WANG Ting (768)
- An easy method to calculate van der Waals interaction between clay plate and spherical particle ..... SHEN Zhi-fu, GAO Feng, JIANG Ming-jing, WANG Zhi-hua, LIU Lu, GAO Hong-mei (776)
- Strength characteristics of GMZ bentonite saturated with salt solutions ..... ZHENG Xin-jiang, XU Yong-fu (783)

### NEWS

- Members of Editorial Board of Chinese Journal of Geotechnical Engineering ..... (head page I)
- Invitation for original papers ..... (head page II)