

ISSN 2096-3246
CN 51-1773/TB
CODEN GKYJAD

Advanced Engineering Sciences

工程科学与技术

2021 1 第53卷 第1期
Vol.53 No.1

· 水利与土木工程 ·

隧道围岩构造软岩大变形发生机理及分级方法	张广泽, 邓建辉, 王 栋, 张 茹, 徐正宣, 张志龙, 冯 君, 任 利, 贾哲强	1
涉水工程洪水风险基本概念的探讨	王文圣, 黄伟军, 覃光华, 丁 晶	13
不同约束形式的薄壁钢管混凝土柱轴心受压试验及承载力计算	王振山, 冯永建, 卢俊龙, 李晓蕾, 田建勃	18
山区小流域暴雨山洪灾害分区预警研究	王协康, 杨 坡, 孙 桐, 许泽星	29
平面钢闸门反向挡水启门力数值分析	黄先北, 仇宝云, 孙 涛, 倪 春, 于贤磊, 郭 婧	39
考虑块石长轴倾角和土石接触面的土石混合体边坡稳定性分析	黄献文, 姚直书, 王 伟, 周爱兆, 姜朋明	47
干寒地区新型波形钢腹板组合箱梁温度效应分析	王 力, 刘世忠, 丁万鹏, 牛思胜, 武维宏	60
基于应变率相关动力特性的岩体爆破破坏区范围研究	魏 东, 陈 明, 叶志伟, 卢文波, 李 桐	67
泄流过程中折板型竖井水气两相流动特性研究	杨 乾, 杨庆华, 赵子成, 林 宏, 尧 远, 牟 祎	75
挺水植被影响下滞水区水流结构与泥沙落淤	向 珂, 杨中华	85
轴压水压耦合作用下裂隙砂岩蠕变特性	刘德峰, 刘鹏涛, 张臻悦, 席银龙, 柴修伟	94
蠕变参数劣化的时效性及变参数蠕变模型	刘文博, 张树光, 孙博一	104
盐渍土环境中钢筋混凝土基于Wiener随机过程寿命预测	路承功, 魏智强, 乔宏霞, 薛翠真, 付 勇	113
单向冻结条件下扩底桩抗冻拔能力试验研究	黄旭斌, 盛 煜, 黄 龙, 彭尔兴, 曹 伟, 张奎彦, 何彬彬	122
中都河流域“8·16”山洪致灾机理分析	孙 桐, 杨 坡, 许泽星, 王以逵, 王协康	132
大渡河过饱和溶解气体原型观测研究	邹 琴, 刘四华, 黄 翔, 杨 军, 顾 洋, 王振华, 冯镜洁, 李 然, 李克锋	139

· 机械工程 ·

2-UPR&2-RPU冗余并联机构动力学与功耗分析	林光春, 廖勋宝, 赵荣宽, 陈世超	146
Stephenson-Ⅲ型平面六杆机构轨迹综合的代数求解	李学刚, 张丽娟, 魏世民, 李河清	155
金属油气管道点蚀缺陷安全评估及预警系统研究	HOANG Van Thanh, 龙 伟, 李炎炎, 黄仕磊, 胥 鑫	162

· 物联网 ·

多尺度特征提取和多级别特征融合的显著性目标检测方法	黎玲利, 孟令兵, 李金宝	170
基于区块链的分布式激励架构研究	何云华, 黄 伟, 王伟忠, 张 翠, 李 红, 孙利民	178

· 化学工程与材料工程 ·

非均匀降膜式气液交叉流除尘系统运行能耗数值分析	余 徽, 刘泽坤, 熊国栋, 杨雅琪, 郑一玮, 魏文韞	188
一种高苯基含量有机硅阻燃聚碳酸酯的研究	杨 锐, 蔡绪福, 戴子林, 吴海鹰, 朱淮军, 高丽霞, 区菊花, 孔振兴	195
赤泥-高炉矿渣-钢渣三元体系注浆材料试验研究	李召峰, 刘 超, 王 川, 张 健, 王衍升, 高益凡	203
一种新型荧光聚氨酯的制备与研究	彭青海, 聂泽坤, 蔡绪福	212

征稿简则

封三

· HYDRAULIC & CIVIL ENGINEERING ·

Mechanism and Classification of Tectonic-induced Large Deformation of Soft Rock Tunnels	1
..... ZHANG Guangze, DENG Jianhui, WANG Dong, ZHANG Ru, XU Zhengxuan, ZHANG Zhilong, FENG Jun, REN Li, JIA Zheqiang	
Preliminary Probe on Basic Concept of Flood Risk for Wading Project	13
..... WANG Wensheng, HUANG Weijun, QIN Guanghua, DING Jing	
Axial Compression Experiment and Bearing Capacity Calculation of Thin-walled Concrete Filled-steel Tube Columns with Different Restraint Forms	18
..... WANG Zhenshan, FENG Yongjian, LU Junlong, LI Xiaolei, TIAN Jianbo	
Study on Division Early Warning of Flash Flood Disaster Caused by Rainstorm in Mountainous Small Watersheds	
..... WANG Xiekang, YANG Po, SUN Tong, XU Zexing	29
Numerical Analyses of Gate Lifting Force for Vertical-lifting Plane Steel Gate When Retaining Water Inversely	
..... HUANG Xianbei, QIU Baoyun, SUN Tao, NI Chun, YU Xianlei, GUO Qiang	39
Stability Analysis of the Soil-Rock Slope Considering Long Axis Inclination and Soil-Rock Interface	
..... HUANG Xianwen, YAO Zhishu, WANG Wei, ZHOU Aizhao, JIANG Pengming	47
Analysis on Temperature Effect of New-pattern Corrugated Steel Web Composite Box Girder in Dry Cold Region	
..... WANG Li, LIU Shizhong, DING Wanpeng, NIU Sisheng, WU Weihong	60
Study on Blasting Failure Zone Based on Rate-dependent Dynamic Characteristics of Rock Mass	
..... WEI Dong, CHEN Ming, YE Zhiwei, LU Wenbo, LI Tong	67
Study on the Water-Air Two-phase Flow Characteristics in Baffle-drop Shaft During the Drainage	
..... YANG Qian, YANG Qinghua, ZHAO Zicheng, LIN Hong, YAO Yuan, MU Yi	75
Flow Structure and Sediment Deposition in Groyne Fields with Emerging Vegetation	85
..... XIANG Ke, YANG Zhonghua	
Creep Characteristics of Fractured Sandstone Under the Coupling Action of Axial Compression and Hydraulic Pressure	
..... LIU Defeng, LIU Pengtao, ZHANG Zhenyue, XI Yinlong, CHAI Xiuwei	94
Time-dependents of Creep Parameter Degradation and Variable Parameter Creep Model	104
..... LIU Wenbo, ZHANG Shuguang, SUN Boyi	
Life Prediction of Reinforced Concrete in Saline Soil Based on Wiener Stochastic Process	
..... LU Chenggong, WEI Zhiqiang, QIAO Hongxia, XUE Cuizhen, FU Yong	113
Experimental Study on the Anti-frost Jacking Ability of Belled Pile Under Unidirectional Freezing Condition	
..... HUANG Xubin, SHENG Yu, HUANG Long, PENG Erxing, CAO Wei, ZHANG Xiyan, HE Binbin	122
Analysis on the Disaster Mechanism of “8·16” Flash Flood in Zhongdu River Basin	
..... SUN Tong, YANG Po, XU Zexing, WANG Yikui, WANG Xiekang	132
Prototype Observation and Study of Dissolved Gas Supersaturation in Dadu River	
..... ZOU Qin, LIU Sihua, HUANG Xiang, YANG Jun, GU Yang, WANG Zhenhua, FENG Jingjie, LI Ran, LI Kefeng	139

· MECHANICAL ENGINEERING ·

Dynamics and Power Analysis of 2-UPR&2-RPU Redundant Parallel Mechanism	
..... LIN Guangchun, LIAO Xunbao, ZHAO Rongkuan, CHEN Shichao	146
Algebraic Solution for Path Synthesis of Planar Stephenson-III Six-bar Linkage	155
..... LI Xuegang, ZHANG Lijuan, WEI Shimin, LI Heqing	
Study on Safety Assessment and Early Warning System of Pitting Defects in Metal Oil and Gas Pipelines	
..... HOANG Van Thanh, LONG Wei, LI Yanyan, HUANG Shilei, XU Xin	162

· INTERNET OF THINGS ·

Salient Object Detection Based on Multi-scale Feature Extraction and Multi-level Feature Fusion	170
..... LI Lingli, MENG Lingbing, LI Jinbao	
Research on Distributed Incentive Architecture Based on Blockchain	
..... HE Yunhua, HUANG Wei, WANG Weizhong, ZHANG Cui, LI Hong, SUN Limin	178

· CHEMICAL ENGINEERING & MATERIAL ENGINEERING ·

Numerical Analysis of Operating Energy Consumption in Non-uniform Falling Film Gas-Liquid Cross-flow Array System	
..... YU Hui, LIU Zekun, XIONG Guodong, YANG Yaqi, ZHENG Yiwei, WEI Wenyun	188
Study on the Flame Retardancy Effect of a Organosilicone with High Content of Phenyl on Polycarbonate	
..... YANG Rui, CAI Xufu, DAI Zilin, WU Haiying, ZHU Huaijun, GAO Lixia, OU Juhua, KONG Zhenxin	195
Experimental Study on Grouting Material of Red Mud-blast Furnace Slag-steel Slag Ternary System	
..... LI Zhao Feng, LIU Chao, WANG Chuan, ZHANG Jian, WANG Yansheng, GAO Yifan	203
Preparation and Study of a Novel Fluorescent Polyurethane	212
..... PENG Qinghai, NIE Zekun, CAI Xufu	