

中文核心期刊  
原《中国科技论文在线》

ISSN 2095-2783  
CN 10-1033/N  
CODEN ZKLHAF

# 中国科技论文

ZHONGGUO KEJI LUNWEN

中华人民共和国教育部 主管 教育部科技发展中心 主办

土木建筑与水利工程

CIVIL ENGINEERING AND HYDRAULIC ENGINEERING

## 本期导读

边坡坡面流-渗流耦合冲蚀的模型实验

节段预制PC箱梁弯剪变形和开裂规律试验研究

引伸计刀口对低周疲劳数据影响的试验研究

码头结构对波高分布的影响

济南南部山区东片保护和发展规划探索

CHINA  
SCIENCE PAPER

2013.5

2013年5月 第8卷 第5期  
Vol. 8 No. 5 / May, 2013



中  
国  
科  
技  
论  
文

第 8 卷  
第 5 期  
2013

目 次

边坡坡面流-渗流耦合冲蚀的模型实验  
..... 谢立全, 刘纯嘉, 梁 鑫, 顾诗意 (363)

宁波软土物理力学参数概率分布及相关性研究  
..... 郑轶轶, 朱剑锋, 刘干斌, 贾 波 (367)

定向对接连通井造腔可行性分析  
..... 蒋 翔, 姜德义, 陈 结, 任 松, 易 亮 (374)

红壤丘陵区土壤渗透性及其受植被影响分析  
..... 魏玲娜, 陈 喜, 程勤波, 黄远洋 (377)

拉拔作用下端部扩大型锚杆锚固段受力分析  
..... 崔向东, 贺武斌 (381)

基于 Matlab 对强夯法处理黄土湿陷性的微观结构研究  
..... 苗得雨, 马富丽, 王 敏, 白晓红 (385)

岩石力学-化学耦合效应研究进展  
..... 姚华彦, 吴 平 (391)

NaCl 污染土对 Q235 钢腐蚀的试验研究  
..... 王海杰, 齐园园, 韩鹏举 (397)

地下储油库水幕系统连通性评价  
..... 李树忱, 平 洋, 冯丙阳 (402)

裂隙岩体化学注浆加固后力学性质及表征单元体的试验研究  
..... 胡 巍, 隋旺华, 王档良, 马路兴 (408)

高强高性能混凝土配合比优化设计  
..... 郑山锁, 赵 鹏, 商效瑀 (413)

混凝土断裂行为的损伤仿真模拟  
..... 龙渝川, 何明胜 (417)

节段预制 PC 箱梁弯剪变形和开裂规律试验研究  
..... 袁爱民, 程磊科, 周元华, 吴闻秀, 程宏斌 (421)

加入多维隔减震装置建筑结构的水平向与竖向综合优化  
..... 赵慧义, 徐赵东, 曾 晓, 时本强 (426)

基于改进层次模糊法的沥青路面坑槽修补技术评价  
..... 张 驰, 周博闻 (430)

沥青混合料疲劳自愈性多层次研究现状  
..... 杨 军, 龚明辉, 王 征 (435)

特长铁路隧道全年运行热环境模拟分析  
..... 袁艳平, 雷 波, 马国川, 曹晓玲 (441)

引伸计刀口对低周疲劳数据影响的试验研究  
..... 罗云蓉, 王清远, 付 磊, 黄茂菲, 唐克伦 (445)

裂纹深度和裂纹开口位移的关系  
..... 周 恒, 乐京霞, 董 岩, 易 欠, 黄 浩 (449)

环渤海陆源水污染输出分区研究  
..... 康敏捷, 栾维新, 王 辉, 赵冰茹 (452)

基于改进 SWAT 模型的溇沱河上游流域重金属模拟初步研究——以 Zn 为例  
..... 何寿亮, 孟耀斌, 逯 超 (458)

码头结构对波高分布的影响  
..... 林尚飞, 严士常, 郑金海 (465)

散体材料内部振动能量衰减的细观模型  
..... 蒋红英, 鲁进步, 慕青松 (470)

点坝内部构型控制的剩余油分布物理模拟  
..... 岳大力, 吴胜和, 温立峰, 赵俊威 (473)

水电开发企业组织设计  
..... 王姝力, 唐文哲, 强茂山, 漆大山 (477)

济南南部山区东片保护和发展规划探索  
..... 熊国平, 程亚午, 徐 武 (481)

# CHINA SCIENCE PAPER

Vol. 8 No. 5, 2013

## CONTENTS

- Experimental research on slope soil detachment by shallow flows and upward seepages  
..... *Xie Liquan, Liu Chunjia, Liang Xin, Gu Shiyi* (363)
- Probability and correlation between physical and mechanical parameters of soft clays in Ningbo rail transit engineering  
..... *Zheng Yiyi, Zhu Jianfeng, Liu Ganbin, Jia Bo* (367)
- Making cavity using directionally butted wells technology and its feasibility  
..... *Jiang Xiang, Jiang Deyi, Chen Jie, Ren Song, Yi Liang* (374)
- Soil permeability and effects of vegetation in the red soil hilly region  
..... *Wei Lingna, Chen Xi, Cheng Qinbo, Huang Yuanyang* (377)
- Analysis of the anchorage segment under pullout for end expanding anchor  
..... *Cui Xiangdong, He Wubin* (381)
- Microstructural research using Matlab on collapsible loess by dynamic compaction method  
..... *Miao Deyu, Ma Fuli, Wang Min, Bai Xiaohong* (385)
- An overview of research progress on rock mechano-chemical coupling  
..... *Yao Huayan, Wu Ping* (391)
- Experimental study on Q235 steel in soil polluted by NaCl after corrosion  
..... *Wang Haijie, Qi Yuanyuan, Han Pengju* (397)
- Evaluation of connectivity of water curtain system of underground oil storage caverns  
..... *Li Shuchen, Ping Yang, Feng Bingyang* (402)
- Experimental investigation on mechanical properties and representative elementary volume for chemically grouted fractured rock masses  
..... *Hu Wei, Sui Wanghua, Wang Dangliang, Ma Luxing* (408)
- Optimization design for mix proportioning of high strength and high performance concrete  
..... *Zheng Shansuo, Zhao Peng, Shang Xiaoyu* (413)
- Modeling of concrete fracture using a damage model  
..... *Long Yuchuan, He Mingshen* (417)
- Experimental investigation of deformation and crack variation rules of segmental pre-stressed concrete box beams under bending and shearing  
..... *Yuan Aimin, Cheng Leike, Zhou Yuanhua, Wu Wenxiu, Cheng Hongbin* (421)
- Horizontal and vertical integrated optimization on building structure with multi-dimensional earthquake isolation and mitigation device  
..... *Zhao Huiyi, Xu Zhaodong, Zeng Xiao, Shi Benqiang* (426)
- Evaluation of potholes maintenance technology for asphalt pavement based on improved hierarchical fuzzy method  
..... *Zhang Chi, Zhou Bowen* (430)
- Multiscale research progress of fatigue and self-healing properties of asphalt mixtures  
..... *Yang Jun, Gong Minghui, Wang Zheng* (435)
- Numerical simulations and analyses of the annual thermal environment in an extra long railway tunnel  
..... *Yuan Yanping, Lei Bo, Ma Guochuan, Cao Xiaoling* (441)
- Experimental study on the effect of extensometer knife edges on the low cycle fatigue data  
..... *Luo Yunrong, Wang Qingyuan, Fu Lei, Huang Maoifei, Tang Kelun* (445)
- Relationship between crack depth and crack opening displacement  
..... *Zhou Heng, Yue Jingxia, Dong Yan, Yi Qian, Huang Hao* (449)
- Output partition of land-origin water pollution in Bohai Rim  
..... *Kang Minjie, Luan Weixin, Wang Hui, Zhao Bingru* (452)
- Preliminary research on heavy metal behavior modeling in Hutuohe river upstream watershed based on SWAT model: taking Zinc as an example  
..... *He Shouliang, Meng Yaobin, Lu Chao* (458)
- Effect of wharf structure on the distribution of wave heights  
..... *Lin Shangfei, Yan Shichang, Zheng Jinhai* (465)
- A micromechanical model of vibration energy attenuation in granular structure  
..... *Jiang Hongying, Lu Jinbu, Mu Qingsong* (470)
- Physical simulation of remaining oil distribution controlled by reservoir architecture within point-bar of meandering river  
..... *Yue Dali, Wu Shenghe, Wen Lifeng, Zhao Junwei* (473)
- Organizational design of hydropower development firms  
..... *Wang Shuli, Tang Wenzhe, Qiang Maoshan, Qi Dashan* (477)
- Exploration of conservation and development planning for southern mountain areas (east zone) of Jinan City  
..... *Xiong Guoping, Cheng Yawu, Xu Wu* (481)