

# 铁道建设

4  
2018

RAILWAY ENGINEERING

HICORP 环球集团  
HICORP GROUP

高精模具 制造专家



▶ 多仓综合管廊模具



▶ 盾构管片模具



▶ 隧道盾构管片生产线



▶ 上下分割综合管廊模具

青岛环球集团股份有限公司  
QINGDAO HICORP GROUP CO.,LTD

中国·青岛  
黄岛区钱家山路177号  
电话: 86-532-88139336 手机: 186 7896 5637 网址: www.hicorp.com.cn

### 目 次

#### 桥梁与结构工程

- 张拉螺纹钢对箱梁吊梁孔结构受力的影响 ..... 杨心怡 班新林 罗支贵 等(1)  
铁路混凝土槽形梁弯扭耦合效应分析与设计优化 ..... 司万胜(5)  
大准线黄河特大桥(96+132+96)m 钢桁梁检定试验研究 ..... 兰晓峰 刘鹏辉 周政(10)  
桥梁结构动力测试信号的自适应形态学滤波研究 ..... 徐佳德 单德山(15)  
环境激励下简支梁式结构的动力参数识别研究 ..... 李炜明 任虹(20)  
基于新型黏弹性阻尼减震器的跨断层铁路桥梁减震分析 ..... 王东昀(25)  
高铁隔震桥梁模拟地震振动台试验研究 ..... 吴迪 戴隆华 路晓秋 等(29)  
沪通铁路单双线并行大吨位箱梁架设技术 ..... 薛泽民(34)  
滇南山区高墩大跨连续刚构桥施工线形控制 ..... 滕树元(37)  
三门峡黄河公铁两用特大桥 6#墩双壁钢套箱围堰设计 ..... 连延金(41)  
混凝土结构人行天桥减振加固技术研究 ..... 曹文 陈舜东 邱珂 等(45)  
复杂地层中旋挖钻施工技术的研究与应用 ..... 宁宏坤(49)  
基于光纤光栅传感器的大应变碳纤维板应力监测研究 ..... 覃荷瑛 沈全喜 钟英杰(53)  
新型分层拼装式声屏障施工技术 ..... 来琼(57)

#### 隧道与地下工程

- 隧道穿越既有建筑物爆破施工影响及方案优化 ..... 任永华(61)  
隧道超前地质预报快速响应机制研究与应用 ..... 王勇 安哲立 马伟斌 等(66)  
复杂地质或环境条件下盾构施工整体筹划中的问题分析 ..... 谭万忠(70)  
盾构隧道施工对邻近铁路桥梁的影响分析 ..... 孙雪兵(73)

- 下伏溶洞对穿越上砂下黏地层隧道管片受力的影响分析 ..... 李萍 李威 文武双 等( 78 )  
瓦斯隧道高性能气密性混凝土的配制及应用 ..... 杨育红( 83 )  
采石场爆破对邻近隧道的影响分析 ..... 方智淳 陈志敏( 87 )  
低水化热纤维增强衬砌混凝土性能研究 ..... 王连华( 90 )

## 路基与地基基础

- 铁路路基填料最优振动压实模式判断准则研究 ..... 王永 史存林 张千里 等( 95 )  
冻融循环和干湿交替对黄土力学性质影响的试验研究 ..... 周有禄 武小鹏 李奋 等( 98 )  
寒区高速铁路路基地温监测技术优化试验研究 ..... 王富玉 王天亮 曹立辉 等( 101 )  
伊朗德伊高速铁路沿线盐渍土盐胀临界温度试验研究 ..... 张磊 吴亚平 车宝 等( 106 )  
高速列车作用下新型路涵过渡段动力特性研究 ..... 王先斌 童心豪 冯汉卿 等( 110 )  
砾砂风化岩场地内爆破施工对铁路路基的影响分析 ..... 赵利民 李浩( 113 )  
土体充气破坏模式研究 ..... 江海华 尚岳全 谢威 等( 117 )

## 线路与养护维修

- 采用冲击回波法检测 CRTS III型板式无砟轨道离缝的研究 ..... 刘亮 孙坤 李邦旭( 122 )  
基于概率置信度的高速铁路轨道平顺性评估与可视化技术 ..... 肖剑( 126 )  
城市轨道交通 60 kg/m 钢轨 12 号对称道岔设计 ..... 王国术( 130 )  
武汉北编组站全面摩擦控制系统应用实例分析 ..... 郭向前( 134 )  
西安至十堰高速铁路主要工程地质问题及防治对策 ..... 杨南辉( 138 )

## 工程材料及其他

- 氧化镁补偿收缩混凝土变形特性研究 ..... 朱长华( 143 )  
不同隔振屏障对铁路环境振动的隔振效果试验研究 ..... 孙军 吴宗臻 晋杰 等( 147 )

# CONTENTS

## Bridge and Structural Engineering

Influence of Tensioned Thread Steel Bar on Structure Stress Around Lifting Holes in Box Girder .....	YANG Xinyi, et al ( 1 )
Analysis and Design Optimization on Bending and Torsion Coupling Effect of Railway Concrete Trough Girder .....	SI Wansheng ( 5 )
Test Study for Rating (96+132+96)m Steel Truss Girder of Datong-Zhungeer Yellow River Super-long Bridge .....	LAN Xiaofeng, et al (10)
Research on Adaptive Morphological Filter of Dynamic Test Signals for Bridge Structure .....	XU Jiade, et al (15)
Research on Dynamic Parameters Identification of Simply Supported Girder Structure Under Ambient Excitation .....	LI Weiming, et al (20)
Seismic Isolation Analysis Based on New Viscoelastic Damping Damper for Railway Bridge Crossing Fault .....	WANG Dongyun (25)
Analysis of Isolated High Speed Railway Bridge by Pseudo-earthquake Shaking Table Tests .....	WU Di, et al (29)
Erection Technology of Large Tonnage Box Girder for Single Line and Double Paralleled Lines of Shanghai-Nantong Railway .....	XUE Zemin (34)
Alignment Control of Long Span Continuous Rigid Frame Bridge with High Piers in South Yunnan Mountain Region in Construction .....	TENG Shuyuan (37)
Design of Double-walled Steel Cofferdam for No.6 Pier of Sanmenxia Yellow River Rail-cum-Road Super Long Bridge .....	LIAN Yanjin (41)
Study on Vibration Reduction and Reinforcement Technology of Pedestrian Bridge with Concrete Structure .....	CAO Wen, et al (45)
Research and Application of Construction Technology of Rotary Drill in Complex Stratum .....	NING Hongkun (49)
Research on Stress Monitoring of Large-strain Carbon Fiber Plate Using Fiber Bragg Grating Sensor .....	QIN Heying, et al (53)
Construction Technology of New Type Segmental Layered Noise Barrier .....	LAI Qiong (57)

## Tunnel and Underground Works

Impact of Blast Construction on Tunnel Passing Under Buildings and Its Scheme Optimization .....	REN Yonghua (61)
Research and Application of Rapid Response Mechanism for Tunnel Advanced Geological Prediction .....	WANG Yong, et al (66)
Problem Analysis for Overall Planning of Shield Tunnel Construction in Complex Geological and Environmental Conditions .....	TAN Wanzhong (70)
Influence Analysis of Shield Tunnel Under-crossing Construction on Adjacent Railway Bridge .....	SUN Xuebing (73)

## Influence Analysis of Underlying Karst Cave on Tunnel Segment Force Passing Through

Upper-sand and Lower-clay Stratum ..... *LI Ping, et al( 78 )*

## Preparation and Application of High Performance Air Tightness Concrete for

Gas Tunnel ..... *YANG Yuhong( 83 )*

## Influence Analysis of Quarry Blasting on Adjacent Tunnel ..... *FANG Zhichun, et al( 87 )*

## Performance Study of Fiber-reinforced Lining Concrete with Low Hydration Heat ..... *WANG Lianhua( 90 )*

## Subgrade·Foundation

### Study on Judgment Criterion of Optimal Vibratory Compaction Mode for

Railway Subgrade Filler ..... *WANG Yong, et al( 95 )*

### Experimental Study on Influence of Freeze-Thaw Cycles and Dry-Wet Alternation on

Mechanical Properties of Loess ..... *ZHOU Youlu, et al( 98 )*

### Experimental Study on Ground Temperature Monitoring Technique Optimization for

High Speed Railway Subgrade in Cold Region ..... *WANG Fuyu, et al( 101 )*

### Experimental Study on Salt Swelling Critical Temperature for Saline Soil Along

Deuil High Speed Railway in Iran ..... *ZHANG Lei, et al( 106 )*

### Research on Dynamic Characteristics of New Type Culvert-Subgrade

Transition Section Under High Speed Train Running ..... *WANG Xianbin, et al( 110 )*

### Influence of Blast Construction in Weathered Gravel Rock Site on

Nearby Railway Subgrade ..... *ZHAO Limin, et al( 113 )*

### Study on Failure Mode of Aeration Soil ..... *JIANG Haihua, et al( 117 )*

## Track and Its Maintenance

### Research on Gap Detecting of CRTS III Ballastless Track Structure by

Impact Echo Method ..... *LIU Liang, et al( 122 )*

### Evaluation and Visualization Technique of Track Regularity of High Speed Railway

Based on Probability Confidence ..... *XIAO Jian( 126 )*

### Design of No.12 Symmetrical Turnout Matching 60 kg/m Rail for Urban Rail Transit ..... *WANG Guoshu( 130 )*

### An Example Analysis of Comprehensive Wheel-rail Friction Control System in

Wuhanbei Marshalling Station ..... *GUO Xiangqian( 134 )*

### Main Engineering Geological Problems and the Control Countermeasures for

Xi'an-Shiyan High Speed Railway ..... *YANG Nanhui( 138 )*

## Engineering Material and Others

### Research on Deformation Characteristics of Compensating Shrinkage Concrete with

Magnesia ..... *ZHU Changhua( 143 )*

### Experimental Study on Vibration Isolation Effects of Different Vibration Isolation

Barriers Against Environment Vibration Induced by Railway Trains ..... *SUN Jun, et al( 147 )*