

中文核心期刊 RCCSE中国核心学术期刊

ISSN 1003-1995
CN 11-2027/U

铁道建筑

8 2016

RAILWAY ENGINEERING



ISSN 1003-1995



中国铁道科学研究院 主办

铁道建筑

TIEDAO JIANZHU

2016年 第8期 (总第510期)

目 次

特稿

既有铁路木枕替代材料的研究现状及发展趋势 曾志斌(1)

桥梁与结构工程

石济客专济南黄河公铁两用桥主桥钢桁梁架设方案研究 赵新宇(10)

连续梁桥平转施工称重试验方法优化研究 苏巨峰 李 磊 黄 健 等(14)

改变施工步骤对连续梁桥线形及应力的影响 贾文豪 李子奇(19)

连续梁0号块缺陷处理精细有限元分析 何志超(22)

一种新型高铁救援起重机桥梁通过及承载能力检算评估 惠如海(26)

在役预应力混凝土桥梁损伤状态承载力评估 姜天华 王 强 杨 壮 等(31)

大跨度钢管混凝土拱桥水化热的试验与数值分析 高卫卫(35)

大型码头工程引桥连续梁地震易损性分析 刘昕玥 汪承志(39)

橡胶质量对板式橡胶支座性能的影响分析 张 勇 高 岩 庄军生(43)

铁路桥梁桩基础承台分担荷载效应研究 任 亮(46)

竖向剪刀撑及平联对高耸型螺旋钢管支架稳定性影响分析 周永明(50)

现浇预应力混凝土连续箱梁桥顶板裂缝成因分析 刘伯奇(53)

硅烷浸渍技术在先张法预应力混凝土空心板梁梁端防腐中的应用 张 军(57)

隧道与地下工程

列车振动荷载作用下交叉盾构隧道动力响应与损伤分析 黄 希 晏启祥 陈 诚 等(60)

IV级围岩大进尺下全断面开挖可行性研究 颜杜民 何 平 高红杰 等(65)

红层软岩隧道CRD法进洞施工合理工序研究 陈国中 徐前卫 程盼盼 等(69)

扬州瘦西湖盾构隧道衬砌结构受力模拟与实测对比分析 晏胜荣(73)

地铁钻爆法隧道防排水选型双层次综合评价方法 雷 刚(77)

浅埋岩溶隧道下穿河流段施工技术	宋朋超 孙星亮(83)
降雨条件下膨胀性黄土隧道支护结构破坏特征	俞文生 刘蕙婷 晏勤等(86)
基于并行电法的节理岩体注浆过程监测	周万福 丁小平 康爱国等(89)
综合探测技术在隧道抢险工程中的应用	楚小刚 张忠平 董嘉(93)
增建二线特长铁路隧道施工通风技术	刘军权(96)
地铁深基坑采用可回收锚索支护的锚固机理研究	李习伟 王建 李兆平(100)

路基与地基基础

重载铁路路基土动力特性试验研究	赵莹莹 凌贤长 李鹏等(104)
大西客运专线路基冻胀监测与分析	刘海江(108)
关于成渝高铁路基上拱问题的探讨	杨吉新 马旭超 刘前瑞(112)
基坑工程中锚索微型桩支护结构设计方法探讨	陈丽波(116)

线路与养护维修

异形截面轨道板分截面配筋设计方法研究	尉大业(121)
客货共线铁路12号可动心轨道岔线型优化	马莉(125)
小半径曲线段混凝土轨枕优化设计研究	陈漫 张波 肖杰灵(128)
道砟胶应用于有砟-无砟轨道过渡段的关键控制技术	朱永见(133)
海南地区铁路扣件系统防腐技术选型分析	黄小华 周帅(137)
3D打印技术在轨道部件领域的初步应用	杨亮(141)
细化U71Mn钢轨焊接接头晶粒度的焊后热处理工艺优化研究	许鑫 王树青 詹新伟(145)
基于功率键合图的相似模拟方法在大型养路机械系统中的应用	杨林勇(149)

工程材料及其它

高原地区混凝土裂缝的修补技术	牛东兴 韩龙武 周有禄等(153)
陶粒原材料和级配对水泥基陶粒轨道吸音板吸声性能的影响	李丽 朱万旭 孟庆鹏(157)
我国高速铁路噪声源强特性变化试验研究	刘兰华(160)
我国高速铁路声屏障应用效果分析	李晏良(164)

CONTENTS

Special Contribution

- Research Status and Development Trend of Alternative Materials of Existing Wooden Sleepers
..... ZENG Zhibin(1)

Bridge and Structural Engineering

- Study on Erection Plan of Main Bridge's Steel Truss Girder of Jinan Yellow River Highway and
Railway Shared Bridge on Shijiazhuang-Jinan Passenger Dedicated Railway ZHAO Xinyu(10)
- Study on Optimization of Weighing Test Method for Continuous Girder Bridge Constructed by
Horizontal Rotation Approach SU Jufeng, et al(14)
- Influence of Changing Construction Steps on Alignment and Stress of Continuous Girder Bridge
..... JIA Wenhao, et al(19)
- Precise Finite Element Analysis on Defect Treatment for Hammer Head Block of
Continuous Girder HE Zhichao(22)
- Inspection and Evaluation of Bearing Capacity of High Speed Railway Bridge Girders Under
Passing of a New Type of Rescue Crane HUI Ruhai(26)
- Assessment of Bearing Capacity for Damaged Prestressed Concrete Bridge in Service
..... JIANG Tianhua, et al(31)
- Hydration Heat Test and Numerical Analysis for Long Span Concrete-filled Steel
Tube Arch Bridge GAO Weiwei(35)
- Seismic Fragility Analysis for Continuous Girder of Approach Bridge for Large Wharf Project
..... LIU Xinyue, et al(39)
- Influence of Rubber Quality on Plate-type Elastomer Pad Bearings ZHANG Yong, et al(43)
- Study on Sharing Load Effect of Railway Bridge Pile Foundation Platform REN Liang(46)
- Analysis on Influence of Vertical Shear Bracing and Lateral Bracing on Stability of
High Spiral Steel Pipe Scaffolding ZHOU Yongming(50)
- Analysis on Top Deck Crack Cause for Certain Cast-in-place Prestressed Concrete Continuous
Box Girder Bridge LIU Boqi(53)
- Application of Silane Impregnation Technology to Corrosion-prevention of Pretensioned
Concrete Hollow Slab Girder ZHANG Jun(57)

Tunnel and Underground Works

- Dynamic Response and Damage Analysis of Spatial Intersecting Shield Tunnels Under
Vibration Load of Train HUANG Xi, et al(60)
- Feasibility Research of Full Section Excavation of Tunnel in Class IV Surrounding Rock with
Large Footage YAN Dumin, et al(65)
- Study on Reasonable Construction Process in Entrance Section of Red Layer Soft Rock
Tunnel with CRD(Cross Diaphragm) Method CHEN Guozhong, et al(69)
- Yangzhou Shouxihu Shield Tunnel Lining Structure Stress Simulation and Measured Result
Contrast Analysis YAN Shengrong(73)
- Two-Level Comprehensive Evaluation Method on Type Selection of Water-proof and
Drainage for Metro Tunnel with Drill-blast Method LEI Gang(77)

Construction Technology of Shallow-buried Karst Tunnel Driving Under River	<i>SONG Pengchao, et al</i> (83)
Analysis of Failure Feature of Expansive Loess Tunnel Support Structure Under Rainfall Condition	<i>YU Wensheng, et al</i> (86)
Monitoring of Grouting Process in Jointed Rock Mass Based on Parallel Electrical Method	<i>ZHOU Wanfu, et al</i> (89)
Application of Comprehensive Detection Technology in Case of Rescue in Tunnel	<i>CHU Xiaogang, et al</i> (93)
Ventilation Technology in Construction of Super-long Tunnel on Additional Second Railway	<i>LIU Junquan</i> (96)
Anchoring Mechanism of Removal Anchor Cable Support Used in Metro Deep Foundation Pit	<i>LI Xiwei, et al</i> (100)

Subgrade • Foundation

Experimental Study on Dynamic Performance of Subgrade Soil for Heavy Haul Railway	<i>ZHAO Yingying, et al</i> (104)
Monitoring Technology of Subgrade Frost Heaving for Datong–Xi’an Passenger Dedicated Railway	<i>LIU Haijiang</i> (108)
Exploring on Subgrade Swelling of Chengdu–Chongqing High Speed Railway	<i>YANG Jixin, et al</i> (112)
Discussion on Design Method of Supporting Structure of Anchor Cable Combined with Micro-Pile Used in Foundation Pit	<i>CHEN Libo</i> (116)

Track and Its Maintenance

Research on Design Method of Featuring Reinforcement According to Different Cross-section for Special Shaped Cross-section Track Slab	<i>YU Daye</i> (121)
Alignment Optimization for 12# Movable Point Turnout of Railway for Mixed Passenger and Freight	<i>MA Li</i> (125)
Study on Optimal Design of Concrete Sleeper on Small Radius Curve Section	<i>CHEN Man, et al</i> (128)
Key Control Technologies in Application of Ballast Glue to Ballast-Ballastless Track Transition Zone	<i>ZHU Yongjian</i> (133)
Analysis on Selection of Anti-corrosion Technologies for Rail Fastening System in Hainan Province	<i>HUANG Xiaohua, et al</i> (137)
Preliminary Application of 3D Printing Technology in Field of Track Components	<i>YANG Liang</i> (141)
Optimization Study of Post-weld Heat Treatment Process to Refine U71Mn Rail Welded Joints Grain Size	<i>XU Xin, et al</i> (145)
Application of Simulation Method Based on Power Bond Graph to Large Railway Maintenance Machine System	<i>YANG Linyong</i> (149)

Engineering Material and Other

Repairing Technology of Concrete Crack in Plateau Area	<i>NIU Dongxing, et al</i> (153)
Influence of Raw Materials and Grading of Ceramics on Sound Absorption Performance of Cement-based Ceramic Acoustic Panels for Track	<i>LI Li, et al</i> (157)
Experimental Study on Noise Source Characteristics of High Speed Railway	<i>LIU Lanhua</i> (160)
Analysis on Application Effects of Noise Barrier of High Speed Railway	<i>LI Yanliang</i> (164)

《铁道建筑》编委会

顾问 周 镜 冯叔瑜 康高亮 徐 涌 张大伟 赵有明
主任 叶阳升
副主任 韩自力 刘晓光
委员 王 平 王 红 王勋文 牛 斌 冯仲伟 刘艳青 江 成
孙 宁 杜宝军 肖俊恒 宋绪国 张千里 张志毅 张松琦
张佰战 张格明 邵根大 周清跃 胡所亭 柯在田 柴雪松
高 岩 高 亮 高宗余 高春雷 谢永江 蔡德钧 黎国清
(以姓氏笔画为序)

中文核心期刊

RCCSE中国核心学术期刊

CNKI中国期刊全文数据库收录期刊

铁道建筑 (TIEDAO JIANZHU)

月刊, 1961年创刊

万方数据数字化期刊群收录期刊

中文科技期刊数据库收录期刊

中国学术期刊综合评价数据库来源期刊

RAILWAY ENGINEERING

Monthly, Started in 1961

主 管 中国铁路总公司
主 办 中国铁道科学研究院
承 办 中国铁道科学研究院铁道建筑研究所
出 版 《中国铁路》杂志社有限责任公司
编 辑 《铁道建筑》编辑部
主 编 叶阳升
地 址 北京市海淀区大柳树路2号 (100081)
联系方式 (010)51849235 51893552 51874870
(021)49235 74870 93552(路电)
(010)51893587 (021)93587(广告)
tdjzjb@126.com tdjz@rails.cn
印 刷 北京昌平百善印刷厂
国内总发行 北京报刊发行局
订阅: 全国各地邮局 邮发代号: 2-405
国外总发行 中国国际图书贸易集团有限公司
国外发行代号: M5006
广告经营许可证 京海工商广字第8299号

Administrated by:

China Railway Corporation

Sponsored by:

China Academy of Railway Sciences

Edited and Published by:

Editorial Department of *Railway Engineering*,

China Railway Editorial Office Co., Ltd.

Editor in Chief: YE Yangsheng

Address: 2 Daliushu Road, Haidian District,

Beijing, China, 100081

Tel: (8610)51849235

Fax: (8610)51893552

E-mail: tdjzjb@126.com tdjz@rails.cn

http://www.tdjk.org

Distributed Abroad by:

China International Book Trading Group Co., Ltd.

Foreign Service Distribution Code: M5006



微信号:tdjz1961

万方数据

ISSN 1003-1995

CN 11-2027/U

每期定价: 20.00 元