

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

第62卷 第10期
2022

RAILWAY ENGINEERING

Vol.62 No.10

客货共线铁路60 kg/m钢轨9号与12号道岔统型与结构优化 张晓阳 王树国

桥梁结构健康监测技术标准现状分析与思考 潘永杰 蔡德钩 冯仲伟 等

铁路路基压实质量连续检测指标的相关性及影响因素 左君 高翔 马殷军 等

封面供图 罗春晓



ISSN 1003-1995



9 771003 199114

中国铁道科学研究院集团有限公司 主办

铁道建筑

TIEDAO JIANZHU

2022年10月 第62卷 第10期(总第584期)

目 次

特稿

- 客货共线铁路60 kg/m钢轨9号与12号道岔统型与结构优化 张晓阳 王树国(1)
桥梁结构健康监测技术标准现状分析与思考 潘永杰 蔡德钩 冯仲伟 等(8)
铁路路基压实质量连续检测指标的相关性及影响因素 左君 高翔 马殷军 等(17)

线路与养护维修

- CRTS II型无砟轨道预加固植筋方案适应的升温幅度 刘伟斌 钟阳龙 邵春强 等(22)
客货共线32 m简支梁桥上无缝线路纵向力研究 徐浩 刘浩 田春香 等(27)
基于机器视觉的钢轨光带检测方法 张博 刘秀波(31)
高速铁路道岔区几何不平顺动态管理限值研究 杨爱红 杨飞 孙加林 等(35)
贵广高速铁路动车组车体异常晃动原因分析及治理 龚继军 魏来 蒋俊 等(40)
轨枕空吊对有砟道床动力稳定性能的影响 杜帅 李俊峰 刘淦中 等(45)
聚氨酯减振浮置板轨道结构减振参数研究 王梦林 陈宪麦(51)
轨道动态几何状态与轮轨力检测数据里程校准方法及应用 赵正阳 王冰 李洋 等(55)
基于多维空间相似理论的线路方案地形相似度判断算法设计与实现 白如博 韩峰(60)
CRTS I型双块式无砟轨道道床混凝土施工装备研究 张锐 何喆 李康 等(65)

桥梁与结构工程

- 变截面UHPC-波形钢腹板组合箱梁扭转效应试验研究 郭绍昌 李立峰 冯威 等(68)
波形钢腹板结构参数变化对其稳定性的影响 茹超 张运波 欧阳稳 等(74)
强震作用下铁路连续梁桥桥墩损伤分析 白越 彭福兵 张琪 等(78)

- 不均匀正应力下节段预制桥梁胶接缝的抗剪性能 张志浩 张永平 胡方健 等(84)
Q500qE 高强钢压杆稳定试验研究 鞠晓臣 赵欣欣 刘晓光(90)
饱和黄土区桩基托换模型试验和数值模拟 吕文达(94)
海域大直径嵌岩钻孔灌注桩全套管施工技术 张军辉(98)

隧道与地下工程

- 强地震诱发大梁隧道震害的调查研究 李宁 丁彦杰(101)
小净距隧道中岩墙对拉锚杆加固效果分析 王浩 杨新安(106)
浆液参数时变性对软土地区深埋盾构隧道开挖的影响 田小聪 张孟喜 卢康明 等(112)
基于改进理想点法的岩溶隧道突水风险预测 黄小通 黄芮 田大鹏 等(117)
重庆深埋特大断面隧道变形特征及施工工法比选 朱鹏霖 申玉生 连正 等(122)

路基与地基基础

- 陇海铁路路堤沉降变形与深部位移监测及防治 范家玮 张玉芳 李知军 等(126)
增压式真空预压法在疏浚砂尾水区地基处理中的应用 卢家琦 江辉煌 马驰 等(131)
路用水泥稻壳灰稳定碎石混合料性能试验研究 朱俊樸(136)

工程材料及其他

- 青藏铁路站台雨棚钢结构防腐涂层抗老化性能研究与服役寿命预测 梁宏璞 保正才 杨海波 等(141)
无人机摄影测量在超高陡危岩体整治工程中的应用 杨俊斌 张治平 刘骏(147)
面向铁路工程三维信息重建的无人机航线规划改进方法 王凯(151)
基于矢量瓦片的铁路 GIS 空间分层表达技术 王雪影 王英杰 刘文斌 等(156)
中国与西非桥梁设计洪水计算方法的比较分析 周马生 齐梅兰 高洪岩 等(161)
基于无靶标图像的轨道交通隧道内积水检测技术 李明洪 刘宏(166)

RAILWAY ENGINEERING

October 2022 Vol.62 No.10 (Series No.584)

CONTENTS

Special Contribution

- Unification and Structural Optimization of No.9 and No.12 Turnouts with
60 kg/m Rail on Mixed Passenger and Freight Railway *ZHANG Xiaoyang, et al(1)*
Status Analysis and Consideration of Technical Standards for
Bridge Structure Health Monitoring *PAN Yongjie, et al(8)*
Correlation and Influencing Factors of Continuous Test Indexes of
Subgrade Compaction Quality *ZUO Jun, et al(17)*

Track and Its Maintenance

- Adaptive Temperature Rise Range for Pre-reinforcement Planting Bar Scheme of
CRTS II Ballastless Track *LIU Weibin, et al(22)*
Study on Longitudinal Force of Continuous Welded Rail on 32 m Simply Supported
Beam Bridge of Mixed Passenger and Freight Railway *XU Hao, et al(27)*
Detection Method of Running Band of Rail Based on Machine Vision *ZHANG Bo, et al(31)*
Study on Dynamic Management Limit of Geometric Irregularities in Turnout Area of
High Speed Railway *YANG Aihong, et al(35)*
Cause Analysis and Treatment of Abnormal Shaking of EMU on
Guizhou-Guangzhou High Speed Railway *GONG Jijun, et al(40)*
Influence of Unsupported Sleepers on Dynamic Stability Performance of Ballast Bed *DU Shuai, et al(45)*
Study on Damping Parameters of Floating Plate Track with Polyurethane Damping *WANG Menglin, et al(51)*
Mileage Calibration Method and Application of Dynamic Rail Inspection and
Wheel-Rail Force Inspection Data of Rail Transit *ZHAO Zhengyang, et al(55)*
Design and Implementation of Terrain Similarity Judgment Algorithm About
Route Scheme Based on Multi-dimensional Spatial Similarity Theory *BAI Rubo, et al(60)*
Research on Concrete Construction Equipment of CRTS I Double Block
Ballastless Track Bed *ZHANG Rui, et al(65)*

Bridge and Structural Engineering

- Experimental Study on Torsional Behavior of Variable Section UHPC-Composite
Box Girder with Corrugated Steel Web *GUO Shaochang, et al(68)*
Influence of Structural Parameter of Corrugated Steel Web on Its Stability *RU Chao, et al(74)*
Damage Analysis of Railway Continuous Girder Bridge Pier Under Strong Earthquake *BAI Yue, et al(78)*
Shear Behavior of Epoxy Resin Joint in Precast Concrete Segmental Bridge Under
Non-uniform Normal Stress *ZHANG Zhihao, et al(84)*

Experimental Study on Compression Rob Stability of Q500qE High Strength Steel	JU Xiaochen, et al(90)
Model Test and Numerical Simulation of Underpinning Pile Foundation in Saturated Loess Area	LYU Wenda(94)
Construction Technology of Large Diameter Bored Pile Embedded in Fresh Rock Drilling with Full Casing in Sea Area	ZHANG Junhui(98)

Tunnel and Underground Works

Investigation on Daliang Tunnel Damage Induced by Strong Earthquake	LI Ning ,et al(101)
Analysis on Reinforcement Effect of Middle Rock Wall Between Neighborhood Tunnels Using Counter-pulled Bolts	WANG Hao ,et al(106)
Influence of Time-varying Grout Parameters on Deep-buried Shield Tunnel Excavation in Soft Soil Area	TIAN Xiaocong ,et al(112)
Risk Prediction of Water Inrush in Karst Tunnels Based on Improved Ideal Point Method	HUANG Xiaotong ,et al(117)
Deformation Characteristics and Construction Method Comparison of Deep-buried Super-large Section Tunnel in Chongqing City	ZHU Penglin ,et al(122)

Subgrade · Foundation

Monitoring and Prevention of Settlement Deformation and Deep Displacement of Lanzhou–Lianyungang Railway Embankment	FAN Jiawei ,et al(126)
Application of Pressurized Vacuum Preloading Method in Foundation Treatment of Dredging Sand Tailrace Area	LU Jiaqi ,et al(131)
Experimental Study on Properties of Road Cement-Rice Husk Ash Stabilized Macadam Mixture	ZHU Junpu(136)

Engineering Material and Others

Study on Anti Aging Performance and Service Life Prediction of Anti-corrosion Coating for Platform Canopy Steel Structure of Qinghai–Tibet Railway	LIANG Hongpu ,et al(141)
Application of UAV-based Photogrammetry in the Treatment Engineering of Super-high and Steep Dangerous Rock Mass	YANG Junbin ,et al(147)
An Improved Method of UAV Route Planning for Railway Engineering 3D Information Reconstruction	WANG Kai(151)
Techniques of Spatial Hierarchical Representation of Railway GIS Based on Vector Tiles	WANG Xueying ,et al(156)
Comparison and Analysis of Bridge Design Flood Calculation Methods Between China and West Africa	ZHOU Masheng ,et al(161)
Detection Technology of Water Accumulation Zones in Rail Transit Tunnels Based on No Target Image	LI Minghong ,et al(166)