

铁道机车车辆

RAILWAY LOCOMOTIVE & CAR



双月刊



中国铁道科学研究院集团有限公司 主办
中国铁道学会牵引动力委员会

邮发代号：80-265

1
2023
第43卷

目次

综合技术研究

多流制电力机车牵引传动系统及关键技术综述研究 许加柱, 刘裕兴, 项锦文, 崔贵平, 梁崇淦, 刘 鹏(1)

新型主动径向转向架单节列车动力学及轮对磨耗研究 许敦坤, 徐 琳(12)

一种单空簧轴箱内置式转向架动力学性能研究 ... 于子良, 张成成, 任坤华, 戚 壮(22)

基于迭代学习的高速列车速度跟踪控制研究 高 枫, 郭佑星, 孙鹏飞, 夏 菲(32)

主磨耗板摩擦系数对斜楔动态特性及货车车辆动力学性能的影响 高贤波, 王开云, 凌 亮, 隋顺琦(40)

专题研究

牵引控制单元自动测试系统研制 王 霖(48)

速度 400 km/h 高速动车组网络系统实时以太网技术应用研究 李海龙, 张 尧(54)

基于三角模糊多属性决策的高速动车组运用决策方法研究 李 莉, 贾志凯, 王 辉, 李 燕, 王忠凯, 喻冰春(59)

高速动车组牵引变流器 EMI 建模仿真研究 金开礼, 李相强, 张健穹, 王庆峰, 熊 奇(63)

新能源冷藏集装箱锂电池标准适应性研究 赵 宇, 陈 波, 陈嘉楠, 苗晓雨(70)

轴箱钢弹簧磨损量与剩余寿命研究 贾洪龙, 王 靖, 梁 微(77)

基于迭代学习的压力传感器温度补偿方法 张 翔, 曹宏发, 温熙圆, 孟红芳, 董海鹏(83)

基于智能模糊控制在机车黏着优化策略中的研究 曾桂珍, 曾润忠, 曲 强, 张广远(88)

可变编组动车组列车控制和管理系统网络组网研究 潘勇卓, 黄志平, 扈海军, 杨万坤(95)

一种出口型内燃动车组制动系统技术平台搭建 ... 张国庆, 张立国, 张军磊, 丁虹民(100)

铁道车辆曲线通过性能在线监测及评估方法研究 田光荣, 王洪昆, 边志宏, 于卫东, 李方烜(106)

基于瞬态特性的动车组制动系统故障诊断方法研究	
..... 蔡 田, 张远东, 章 阳, 孔德帅(111)	
动车组更换闸片引起制动距离超标的问题分析及措施	
..... 王振宏, 王东星, 杨守祥, 冯晓彬, 李智浩(117)	
货车转向架相对摩擦系数分析及设计建议	刘振明(122)
基于碳化硅 MOSFET 的中频辅助变流器在高速列车上的应用	
..... 殷振环, 董 侃, 陈嘉楠(128)	

铁路供电技术

受电弓—接触网受流试验方法标准研究	王志良, 田 亮, 韩通新(133)
-------------------------	--------------------

运用与检修

HXD _{3B} 型电力机车 C6 修技术平台的搭建	史向前, 胡金雨, 蔡 磊(139)
国家能源集团重载铁路货车状态修模式下检修规程的研究制定及应用	
..... 张静轩, 王文刚, 李立东, 周国东(144)	
CR400BF 型动车组异常振动的研究及故障排查建议	
..... 商继东, 高润鸿, 胡文龙, 高 博, 庞奉宝, 赵晓明, 齐庆山(148)	
CRH380BG 型动车组空调系统检修常见故障分析与处理	宫 政(155)

城市轨道交通

基于正线状态监测技术的广州地铁 4 号线旋轮模式创新	韩永春, 罗 斌(159)
北京新机场线辅助逆变器错时启动和减载控制研究	
..... 王 爽, 李晓明, 赵洪涛, 李 彬, 王宇超(164)	
城市轨道交通车辆互联互通救援限速研究	陈 旭(169)

广告目次	(82)
------------	------

CONTENTS

Comprehensive Technical Research

Traction Drive Technology of Multisystem Electric Locomotives and Key Corresponding Development Tendency Research	<i>XU Jiazhu , LIU Yuxing , XIANG Jinwen , CUI Guiping , LIANG Chonggan , LIU Peng</i> (1)
Research on Dynamic Performance and Wheel Wear of Single Train with New Active Radial Bogie	 <i>XU Dunkun , XU Lin</i> (12)
Dynamic Performance of New Concept Bogie with Single Air Spring and Built-in Axle Box	 <i>YU Ziliang , ZHANG Chengcheng , REN Kunhua , QI Zhuang</i> (22)
Research on High-speed Train Speed Tracking Control Based on Iterative Learning	 <i>GAO Feng , GUO YouXing , SUN PengFei , XIA Fei</i> (32)
Effect of Friction Coefficient of Main Wear-Plate on Dynamic Characteristics of Wedge and Dynamic Performance of Freight Train	 <i>GAO Xianbo , WANG Kaiyun , LING Liang , SUI Shunqi</i> (40)

Subject Research

Research the Automatic Test System of Traction Control Unit	<i>WANG Lin</i> (48)
TRDP Application and Research for 400 km/h High-speed EMU TCMS.....	<i>LI Hailong , ZHANG Yao</i> (54)
Research on Application Decision-making Method of High-speed EMU Based on Triangular Fuzzy Multi-attribute	 <i>LI Li , JIA Zhikai , WANG Hui , LI Yan , WANG Zhongkai , YU Bingchun</i> (59)
Research on EMI Modeling and Simulation of Traction Converter for High-speed EMU	 <i>JIN Kaili , LI Xiangqiang , ZHANG Jianqiong , WANG Qingfeng , XIONG Qi</i> (63)
Adaptability Analysis of Standards for Lithium-ion Batteries of New Energy Reefer Container	 <i>ZHAO Yu , CHEN Bo , CHEN Jianan , MIAO Xiaoyu</i> (70)
Study on Damage and Residual Life of Axle Box Steel Spring	 <i>JIA Honglong , WANG Jing , LIANG Wei</i> (77)
Temperature Compensation Method of Pressure Sensor Based on Iterative Learning	 <i>ZHANG Xiang , CAO Hongfa , WEN Xiyuan , MENG Hongfang , DONG Haipeng</i> (83)
Research on the Optimization Strategy of Locomotive Adhesion Based on Intelligent Fuzzy Control	 <i>ZENG Guizhen , ZENG Runzhong , QU Qiang , ZHANG Guangyuan</i> (88)
Research on Networking of Variable Marshalling EMU Train Control and Management System	 <i>PAN Yongzhuo , HUANG Zhiping , HU Haijun , YANG Wankun</i> (95)
Construction of Technical Platform for Braking System of an Export DMU	 <i>ZHANG Guoqing , ZHANG Liguo , ZHANG Junlei , DING Hongmin</i> (100)

Study on Online Monitoring and Evaluation Method of Curving Negotiation Performance of Rolling Stock	
..... TIAN Guangrong , WANG Hongkun , BIAN Zhihong , YU Weidong , LI Fangxuan	(106)
Fault Diagnosis of EMU Braking System Based on Transient Characteristic	
..... CAI Tian , ZHANG Yuandong , ZHANG Yang , KONG Deshuai	(111)
Analysis and Solutions of Braking Distance Exceeding Standard Caused by Brake Pads Replacement of EMU ...	
..... WANG Zhenhong , WANG Dongxing , YANG Shouxiang , FENG Xiaobin , LI Zhihao	(117)
Analysis on Relative Friction Coefficient of Freight Car Bogies and Design Recommendation	
..... LIU Zhenming	(122)
Application of Intermediate Frequency Auxiliary Converter Based on Silicon Carbide MOSFET in High-speed Train	
..... YIN Zhenhuan , DONG Kan , CHEN Jianan	(128)

Power Supply Technology of Railway

Research of Current Collection Test Method Standard between Pantograph and Catenary	
..... WANG Zhiliang , TIAN Liang , HAN Tongxin	(133)

Operation, Inspection & Repair

Establishment of Technology Platform for HXD _{3B} Electric Locomotive C6 Overhaul	
..... SHI Xiangqian , HU Jinyu , CAI Lei	(139)
Research Formulation and Application of Maintenance Regulation for Railway Freight Car of China Energy under the State-overhaul Mode	
..... ZHANG Jingxuan , WANG Wengang , LI Lidong , ZHOU Guodong	(144)
Abnormal Vibration Research and Troubleshooting Suggestion of CR400BF EMU	
..... SHANG Jidong , GAO Runhong , HU Wenlong , GAO Bo , PANG Fengbao , ZHAO Xiaoming , QI Qingshan	(148)
Analysis and Solutions of Common Failures during Overhaul in HVAC System on CRH380BG EMU	
..... GONG Zheng	(155)

Urban Rail Transit

Wheel Turning Innovation Mode of Guangzhou Metro Line 4 Based on Condition Monitoring Technology of Main Line	
..... HAN Yongchun , LUO Bin	(159)
The Asynchronous Start-up and Load Shedding Control of Auxiliary Inverters of Beijing New Airport Line	
..... WANG Shuang , LI Xiaoming , ZHAO Hongtao , LI Bin , WANG Yuchao	(164)
Research of Speed Limit about Rescue of Urban Rail Transit Interconnection/Intercommunication	
..... CHEN Xu	(169)