

交通节能与环保

Transport Energy Conservation & Environmental Protection

主管：中华人民共和国交通运输部 主办：人民交通出版社股份有限公司 交通运输部公路科学研究院

2020第4期
第16卷（总第78期）



Vol.16 No.4 2020

安全靠着你我他 和谐交通靠大家

目 录

行业重点推广技术

公交轮胎全生命周期管理系统研究.....(01)
 生活垃圾焚烧炉渣集料在公路工程中资源化利用技术.....(05)

车辆工程

氢燃料电池汽车发展现状浅析.....赵洪雪 李 泉 庞知非 余海涛 高润泽 (11)
 考虑地域差异的汽油车排放清单建立方法研究.....欧光磊 郭明新 郝玉娇 闫 伟 郭 栋 陈 静 (16)
 多需求场景下的汽车充电路径诱导优化.....张伯男 刘 掬 梁 范梦辉 (22)
 基于大数据的纯电动物流车辆运行现状分析.....庞知非 李 泉 赵洪雪 (28)

港航工程

新发展理念下的生态港口概念解析.....孟亚飞 胡兴华 刘 芭 (32)
 唐山港煤码头三期工程皮带机系统节能减排应用.....李贤龙 (36)
 海图深度基准面在航海中的作用分析.....吴明朋 (41)

运输规划与管理

基于 MNL 模型计算的城区公共交通发展策略研究.....孙 波 (45)
 环境影响的交通需求分布和流量分配组合模型及算法研究.....何胜学 (49)
 寒地城市慢行交通系统规划研究.....李亚辉 (55)
 云南省道路运输大数据云服务平台框架研究.....梅国新 (59)
 考虑区域环境约束的城市交通网络收费设计问题研究.....赵 磊 王 亮 王 欢 仇天然 (65)
 多线路公交停靠站类型与位置的选择分析.....李 力 (70)

道路工程

自发光路面技术在深圳绿道项目中的应用研究.....李 坤 郑志华 陈小兵 叶智威 赵 普 王 媛 (73)
 公路维护养护碳减排模型研究.....卢传忠 华 夏 解建光 (77)
 透水铺装技术在建设海绵城市中的应用研究.....张 珺 (80)
 营运铁路桥下道路改扩建关键技术研究.....李亚子 (84)
 不同因素对纤维-沥青粘结强度影响规律研究.....吴清舟 朱玉凤 张 斌 和燕超 高 颖 郭庆林 (87)
 拱形骨架与植被结合技术在高速公路护坡中的应用.....邹卫雄 (91)
 湿热地区沥青路面路用性能分析.....冯中敏 黎惠莹 袁 娇 罗正斌 (94)
 沥青混合料热拌施工节能减排技术分析探究.....胡 江 宋 炜 (98)
 基于相似度指标的沥青红外光谱快速检测技术研究.....刘世同 (101)
 基于山区高速公路安全性评价的路线优化设计分析.....贺亚军 (105)
 高速公路事故路段影响因素分析.....胡 冰 (108)
 智慧公路管理服务系统研究.....马 娟 师维超 (111)
 废旧混凝土材料的建材资源化利用研究进展.....王 凯 张述雄 (114)
 不同含石量的土石复合体边坡稳定性及失稳机制探析.....宋 炜 胡 江 (118)
 基于环境与结构的大跨度斜拉桥桥塔造型设计构思.....李文勃 (122)
 基于环保设计理念的高等级公路桥梁排水设计.....侯 钢 (127)
 E 型多连杆后悬架外倾激光测量技术应用.....毛英慧 (130)
 隧道照明灯具布置方式对照明效果影响研究.....石开荣 (134)
 物联网技术在公路隧道照明控制中的研究和应用.....任佳丽 贺 然 (138)
 高海拔隧道内防冻剂对混凝土强度影响分析.....刘宏波 (142)

轨道交通

氢能源有轨电车车辆基地设置探讨.....吴国荣 (146)
 BIM+GIS 技术在快速路改扩建及交通组织模拟中的应用.....王景鑫 孟德川 叶戴成 韩向阳 周浩宇 蒯海东 (149)
 基于网络化对地铁变形监测的信息管理探索.....钟文文 (153)
 北京大兴国际机场线南延工程 (R1 线) 车辆需求探讨.....黄治中 王 冰 (156)

CONTENTS

Research on the Life Cycle Management System of Bus Tire.....	(01)
Resource Utilization Technology of Domestic Garbage Incinerator slag Aggregate in Highway Engineering.....	(05)
Analysis on Current Development of Fuel Cell Vehicles.....	ZHAO Hongxue LI Xiao PANG Zhifei YU Haitao GAO Runze(11)
Study on Gasoline Vehicle Emission Inventory Consider Regional Difference	OU Guanglei GUO Mingxin HAO Yujiao YAN Wei GUO Dong CHEN Jing(16)
Optimization of Vehicle Charging Path Planning in Multi Demand Scene.....	ZHANG Bonan LIU Junliang FAN Menghui(22)
Analysis of the Status Quo of Pure Electric Logistics Vehicles Based on Big Data.....	PANG Zhifei LI Xiao ZHAO Hongxue(28)
Analysis of the Concept of Ecological Port under the New Development Concept.....	MENG Yafei HU Xinghua LIU Ba(32)
Application of Energy Saving and Emission Reduction of Belt Conveyor System in Tangshan Port Phase III Project.....	LI Xianlong(36)
Analysis on the Effect of the Chart Depth Datum in Navigation.....	WU Mingpeng(41)
Department of Urban Public Transport Development Strategy Based on MNL Model.....	SUN Bo(45)
Traffic Distribution and Assignment Combined Model and Algorithm with the Traffic Environment Impact.....	HE Shengxue(49)
Research on the Planning of Slow Traffic System in Cold City.....	LI Yahui(55)
Research on the Framework of Yunnan Road Transport Big Data Cloud Service Platform	MEI Guoxin HU Mingxing FANG Hao WANG Yaning LIU Hua(59)
Study on Urban Traffic Network Toll Design Problem with Regional Environmental Constraints	ZHAO Lei WANG Liang WANG Huan QIU Tianran(65)
Selection and Analysis of Types and Locations of Multi-line Bus Stops.....	LI Li(70)
Application Study of Self-illuminating Pavement Technology in Shenzhen Greenway Project	LI Kun ZHENG Zhihua CHEN Xiaobing YE Zhiwei ZHAO Pu WANG Yuan(73)
Study on Carbon Emission Reduction Model of Highway Maintenance and Maintenance.....	LU Chuazhong HUA Xia XIE Jianguang(77)
Permeable Pavement Technology in the Construction of Sponge City Application Research.....	ZHANG Jun(80)
Research on Key Technologies of Reconstruction and Expansion of Roads Under Operation Railway Bridges.....	LI Yazhi(84)
Study on the Effect of Different Factors on the Bond Strength Between Fiber and Asphalt	WU Qingzhou ZHU Yufeng ZHANG Bin HE Yanchao GAO Ying GUO Qinglin(87)
Application of Arch Frame and Vegetation Combination Technology in Highway Slope Protection.....	ZOU Weixiong(91)
Road Performance Analysis of Asphalt Pavement in Hot and Humid Areas.....	FENG Zhongmin LI Huiying YUAN Jiao LUO Zhengbin(94)
Analysis and Research on Energy-saving and Emission-reduction Technology of Hot Asphalt Mix.....	HU Jiang SONG Wei(98)
Research on Rapid Detection Technology of Asphalt Infrared Spectrum Based on Similarity Index.....	LIU Shitong(101)
Analysis of Route Optimization Design Based on Mountain Highway Safety Evaluation.....	HE Yajun(105)
Analysis of Influencing Factors in Highway Accidents Roads.....	HU Bing(108)
Research on Smart Highway Management Service System.....	MA Juan SHI Weichao(111)
Research Progress on Resource Utilization of Waste Concrete Materials.....	WANG Kai ZHANG Shuxiong(114)
Analysis on Stability and Instability Mechanism of Soil-rock Composite Slope with Different Rock Content.....	SONG Wei HU Jiang(118)
Design Consideration of the Tower Shape for Long-span Cable-stayed Bridge Based on Environment and Structure.....	LI Wenbo(122)
High-grade Highway Bridge Drainage Design Based on Environmental Protection Design Concept.....	HOU Gang(127)
Application of Camber Laser Measurement Technology on E-type Multi-link Rear Suspension.....	MAO Yinghui(130)
Research on the Influence of the Lighting Arrangement of Tunnel Lighting on the Lighting Effect.....	SHI Kairong(134)
Research and Application of Internet of Things Technology in Tunnel Lighting Control.....	REN Jiali HE Ran(138)
Analysis of Influence of Antifreeze on Concrete Strength in High Altitude Tunnel.....	LIU Hongbo(142)
Discussion on the Setting of Hydrogen Energy Tram Vehicle Base.....	WU Guorong(146)
Application of BIM+GIS Technology in Expressway Reconstruction and Traffic Organization Simulation	WANG Jingxin MENG Dechuan YE Daicheng HAN Xiangyang ZHOU Haoyu KUI Haidong(149)
Probe into Information Management of Metro Deformation Monitoring Based on Network.....	ZHONG Wenwen(153)
Discussion on the South Extension Project of Beijing Daxing International Airport Express (R1) Carriages Requirement	HUANG Zhizhong ZHAI Yufei(156)

中国核心期刊（遴选）数据库收录期刊
中文科技期刊数据库收录期刊
万方数据——数字化期刊群收录期刊
超星期刊域出版平台全文收录期刊
中文知识数据库收录期刊
中国终身教育学术研究数据库收录期刊
日本科学技术振兴机构数据库（日）（JST）收录期刊

Transport Energy Conservation &
Environmental Protection



交通节能与环保

交通节能与环保

（双月刊，1986年创刊）
第16卷第4期（总第78期）
2020年8月出版

TRANSPORT ENERGY CONSERVATION
& ENVIRONMENTAL PROTECTION
(Bimonthly, Started in 1986)
Vol.16 No.4(78)
August.2020

主 管：中华人民共和国交通运输部
主 办：人民交通出版社股份有限公司
交通运输部公路科学研究院
编辑出版：《交通节能与环保》编辑部

Authority in Charge : Ministry of Transport of P.R.China
Sponsor : China Communications Press Co.,Ltd.
Research Insititute of Highway Ministry of Transport
Edited by : Journal of Transport Energy Conservation & Environmental
Protection

地 址：北京市朝阳区安定门外外馆斜街3号
邮 编：100011
电 话：010-85285530
邮 箱：tseep@ccpress.com.cn
网 址：<http://cbjl.cbpt.cnki.net>
主 编：蔡凤田
副 主 编：陈志敏 刘莉 邵江
编辑部主任：陈跃峰
编 辑：李泉 陈力维 刘楚馨
印 刷：北京盛通印刷股份有限公司

ADD : No.3 Waiguanxiejie Andingmenwai Beijing. P.R. China
Postcode : 100011
Tel : 8610-85285530
E-mail : tseep@ccpress.com.cn
Http : //www.cbjl.cbpt.cnki.net
Chief Editor : CAI Fengtian
Associate Editor : CHEN Zhimin LIU Li SHAO Jiang
Director Editor Dept : CHEN Yuefeng
Editor : LI Xiao CHEN Liwei LIU Chuxin
Printer : Beijing Shengtong Printing Co., Ltd.

国内统一刊号：CN10-1261/U

国际标准刊号：ISSN1673-6478

定价：26.00 元人民币