



CONTENTS

• Structural Performance and Failure Modeling of Pavement Materials •

Analysis of Three-dimensional Stress State and Failure Criteria for Asphalt Pavement Structure ..... YANG Jian-jun, HUANG Wang, GUAN Hong-xin, LYU Song-tao, ZHENG Jian-long(1)

Long-term Evolution Behavior of Rutting Deformation on Asphalt Pavement Based on RIOHTrack Full-scale Loop Life-cycle Test ..... ZHOU Xing-ye, WANG Xu-dong, SHAN Ling-yan, XIE Guo-rui(12)

Rutting Characterization of Steel-bridge Asphalt Pavement Based on Layer-thickness Profiling Using Ground-penetrating Radar ..... WANG Si-qi, LENG Zhen, SUI Xin, ZHANG Wei-guang, ZHU Jun-qing, FAN Jian-wei(22)

Fatigue Life Prediction Model for Asphalt Pavement Structure Under Truck Platooning ..... CHEN Feng, LI Yue, LIU Xing-kun, MA Tao, WANG Ning, PEI Yao-wen, HE Yi-fan, LIU Ke-xin(34)

Frictional-resistance Effect at the Interface Between Asphalt Layers and Its Influence Mechanism on Interlayer Shear Strength ..... AI Chang-fa, LI Lin-yu, HUANG Heng-wei, ZHAN You(47)

Dynamic Performance and Damage Evolution Behavior of High-viscosity High-elasticity Asphalt Concrete Under Repeated Freeze-thaw Effect ..... XIAO Xin, WANG Jia-yu, LI Jin, XIAO Fei-peng(64)

Progress of Multi-scale Research on Chloride Salt Erosion Damage of Asphalt and Asphalt Mixture ..... GUO Nai-sheng, CHU Zhao-yang, FANG Chen-ze, YOU Zhan-ping, CUI Shi-chao(77)

• Low Environmental Impact Pavement Materials and Construction •

Properties of Waterborne Epoxy Resins-based Binders for High-percentage Cold-rejuvenated Mixtures ..... CHEN Yu-heng, YI Jun-yan, PEI Zhong-shi, FENG De-cheng(107)

Mechanical Performance and Drying Shrinkage Characteristics of Solid Waste Based Geopolymer-stabilized Macadam ..... ZHANG Yang, TIAN Shao-qiang, MA Tao, LIU Hao, WANG Ao-peng, HUANG Xiao-ming(120)

Performance and Microscopic Characteristics of Geopolymer Stabilized Steel Slag Roadbase with Full Solid-waste Reusing ..... TIAN Zhong-nan, ZHANG Zheng-qi, HE Yong-hai, LEI Wei, PU Chang-yu, MENG Hui-lin, YANG Xiao-xiao(131)

Preparation and Evaluation of Catalytic Crumb Rubber Modified Asphalts Based on Olefin Metathesis ..... LYU Lei, ZHAO Chen, LI Rui, PEI Jian-zhong, KUANG Dong-liang(143)

Interaction Characteristics of Activated Coal Gangue Synergistic Crumb Rubber Powder Modified Asphalt ..... JIN Jiao, LIU Shuai, QIAN Guo-ping, LIU Peng-fei, LIU Ya-ru, ZENG Qing(155)

Fluorescence Characteristics of Polycyclic Aromatic Hydrocarbons in Asphalt and Their Fluorescence Changes at Different Concentrations ..... XIAO Yue, WU Rui, CHANG Xi-wen, LIU Xue-yan, LENG Zhen(171)

Preparation and Efficacy Evaluation of Long-lasting Self-emission-reduction-modified Asphalt Materials ..... WANG Chao-hui, WANG Meng-hao, CHEN Qian, ZUO Zhi-wu, LI Xiao-gang(183)

Toughening of Fiber Reinforced Cement Treated Crushed Pebble Based on Cracking Strain Energy Equilibrium Principle ..... ZHANG Yu-qing, GU Zhang-yi, LI Hui, LUO Xue(197)

Influence Patterns of Urban Roads on Micro-scale Temperature Fields and Human Thermal Comfort ..... JIANG Wei, PENG Hong-xin, YUAN Dong-dong, XIAO Jing-jing(209)

Modeling and Analysis of Sound Absorption of Multilayered Porous Asphalt Pavement ..... LI Ming-liang, LI Jun, YUAN Min-min, WU Hao, HAN Ding-ding(222)

Capacity Optimization of PV Battery Charging System Using APSO Algorithm ..... DONG Qiao, LI Jia-wang, GU Xing-yu, YU Ya-hui, ZHANG Xin(236)

• New Generation Pavement Maintenance Technology and Materials •

Evaluation of Toughening and Buffering Effects of Road Maintenance Energy-absorbing Seal ..... CHEN Qian, WANG Chao-hui, LI Yan-wei, FENG Lei, LIU Wei(249)

Evaluation and Control of Long-term Skid Resistance of Anti-skid Thin Layers Prepared from Recycled Aggregates of Waste High-voltage Electric Porcelain ..... GUAN Bo-wen, WANG Ai-peng, XUE Xing-jie, ZHAO Hua, XIONG Rui, GAI Wei-peng, DING Dong-hai(263)

Modification Mechanism and Road Performance of Polyurethane-modified Bitumen for Reclaimed Pavement ..... HONG Bin, WANG Jian-ling, LI Tian-shuai, ZHANG Bin, TAN Shen, LIU Wen-jun, LIU Jun-fu, WANG Da-wei(275)

An Adaptive Pavement Defect-detection Model Considering Low-light Scenarios ..... ZHONG Shan, JIANG Sheng-chuan, DU Yu-chuan, LIU Cheng-long, WU Di-fei(289)

Pavement Pothole Extraction Based on YOLOX-Transformer Two-step Model ..... WANG Ai-di, PENG Yi-chuan, LANG Hong, XING Ying-ying, CHEN Zhen, LU Jian(304)

Analysis of Asphalt Pavement Skid Resistance Considering Effects of Worn-out Surface Texture and Wet Surface Through FEM-VDM Modeling ..... FAN Yin-hong, ZHU Xing-yi, YANG Hai-lu, WANG Lin-bing(318)

In-situ Density Prediction Model for Asphalt Pavement Based on Machine Learning Algorithm ..... CHEN Yi-fang, LI Feng, ZHOU Si-qi, YAN Er-hu, GONG Yan, ZHOU Zhen-yu(333)

• The Others •

Total Contents of Volume 36 of China Journal of Highway and Transport in 2023 ..... (344-9)