Guoyang Lu

List of Publications by Year in descending order

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Version: 2024-02-01

47 papers	1,247 citations	331259 21 h-index	377514 34 g-index
47 all docs	47 docs citations	47 times ranked	747 citing authors

#	Article	IF	Citations
1	The State-of-the-Art Review on Applications of Intrusive Sensing, Image Processing Techniques, and Machine Learning Methods in Pavement Monitoring and Analysis. Engineering, 2021, 7, 845-856.	3.2	120
2	Development of a sustainable pervious pavement material using recycled ceramic aggregate and bio-based polyurethane binder. Journal of Cleaner Production, 2019, 220, 1052-1060.	4.6	91
3	Experimental study on the polyurethane-bound pervious mixtures in the application of permeable pavements. Construction and Building Materials, 2019, 202, 838-850.	3.2	86
4	Suitability of PoroElastic Road Surface (PERS) for urban roads in cold regions: Mechanical and functional performance assessment. Journal of Cleaner Production, 2017, 165, 1340-1350.	4.6	82
5	Effect of Aging on Chemical and Rheological Properties of Bitumen. Polymers, 2018, 10, 1345.	2.0	68
6	New innovations in pavement materials and engineering: A review on pavement engineering research 2021. Journal of Traffic and Transportation Engineering (English Edition), 2021, 8, 815-999.	2.0	59
7	Fatigue performance of long-term aged crumb rubber modified bitumen containing warm-mix additives. Construction and Building Materials, 2020, 239, 117824.	3.2	50
8	Evaluation of morphological characteristics of fine aggregate in asphalt pavement. Construction and Building Materials, 2017, 139, 1-8.	3.2	42
9	Laboratory and Numerical Investigation of Microwave Heating Properties of Asphalt Mixture. Materials, 2019, 12, 146.	1.3	37
10	Numerical analysis for the influence of saturation on the base course of permeable pavement with a novel polyurethane binder. Construction and Building Materials, 2020, 240, 117930.	3.2	34
11	Parameter optimisation of a 2D finite element model to investigate the microstructural fracture behaviour of asphalt mixtures. Theoretical and Applied Fracture Mechanics, 2019, 103, 102319.	2.1	33
12	Improving the polishing resistance of cement mortar by using recycled ceramic. Resources, Conservation and Recycling, 2020, 158, 104796.	5.3	33
13	The State of the Art: Application of Green Technology in Sustainable Pavement. Advances in Materials Science and Engineering, 2018, 2018, 1-19.	1.0	32
14	Investigation of the microstructural fracture behaviour of asphalt mixtures using the finite element method. Construction and Building Materials, 2019, 227, 117078.	3.2	31
15	Green tunnel pavement: Polyurethane ultra-thin friction course and its performance characterization. Journal of Cleaner Production, 2021, 289, 125131.	4.6	31
16	Characterization of Bitumen Modified with Pyrolytic Carbon Black from Scrap Tires. Sustainability, 2019, 11, 1631.	1.6	29
17	Numerical Simulation of Crack Propagation in Flexible Asphalt Pavements Based on Cohesive Zone Model Developed from Asphalt Mixtures. Materials, 2019, 12, 1278.	1.3	29
18	Accelerated Healing in Asphalt Concrete via Laboratory Microwave Heating. Journal of Testing and Evaluation, 2020, 48, 739-757.	0.4	28

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19	The environmental impact evaluation on the application of permeable pavement based on life cycle analysis. International Journal of Transportation Science and Technology, 2019, 8, 351-357.	2.0	24
20	Sustainable Green Pavement Using Bio-Based Polyurethane Binder in Tunnel. Materials, 2019, 12, 1990.	1.3	23
21	The hydro-mechanical interaction in novel polyurethane-bound pervious pavement by considering the saturation states in unbound granular base course. International Journal of Pavement Engineering, 2022, 23, 3677-3690.	2.2	23
22	Investigation of the Hydraulic Properties of Pervious Pavement Mixtures: Characterization of Darcy and Non-Darcy Flow Based on Pore Microstructures. Journal of Transportation Engineering Part B: Pavements, 2020, 146, 04020012.	0.8	21
23	Using recycled waste glass fiber reinforced polymer (GFRP) as filler to improve the performance of asphalt mastics. Journal of Cleaner Production, 2022, 336, 130357.	4.6	21
24	Experimental investigation on the development of pore clogging in novel porous pavement based on polyurethane. Construction and Building Materials, 2020, 258, 120378.	3.2	20
25	Chemical and physical effects of polyurethane-precursor-based reactive modifier on the low-temperature performance of bitumen. Construction and Building Materials, 2022, 328, 127055.	3.2	20
26	Dynamic Response of Fully Permeable Pavements: Development of Pore Pressures under Different Modes of Loading. Journal of Materials in Civil Engineering, 2020, 32, .	1.3	19
27	Evaluation of polyurethane dense graded concrete prepared using the vacuum assisted resin transfer molding technology. Construction and Building Materials, 2021, 269, 121340.	3.2	19
28	Influence of temperature on polishing behaviour of asphalt road surfaces. Wear, 2018, 402-403, 49-56.	1.5	17
29	Effect of binder film distribution on the fatigue characteristics of asphalt Binder/Filler composite based on image analysis method. Construction and Building Materials, 2020, 260, 119876.	3.2	15
30	Gene-editable materials for future transportation infrastructure: a review for polyurethane-based pavement. Journal of Infrastructure Preservation and Resilience, 2021, 2, .	1.5	15
31	In-situ and numerical investigation on the dynamic response of unbounded granular material in permeable pavement. Transportation Geotechnics, 2020, 25, 100396.	2.0	14
32	Rheological Behavior of Warm Mix Asphalt Modified with Foaming Process and Surfactant Additive. Crystals, 2021, 11, 410.	1.0	10
33	Use of Polyurethane Precursorâ€“Based Modifier as an Eco-Friendly Approach to Improve Performance of Asphalt. Journal of Transportation Engineering Part B: Pavements, 2021, 147, .	0.8	9
34	Volatile organic compounds (VOCs) inhibition and energy consumption reduction mechanisms of using isocyanate additive in bitumen chemical modification. Journal of Cleaner Production, 2022, 368, 133070.	4.6	9
35	Comparison of Mechanical Responses of Asphalt Mixtures under Uniform and Non-Uniform Loads Using Microscale Finite Element Simulation. Materials, 2019, 12, 3058.	1.3	7
36	Effect of filler on performance of porous asphalt pavement using multiscale finite element method. International Journal of Pavement Engineering, 2022, 23, 3244-3254.	2.2	7

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37	Influence of microstructure evolution of bitumen on its micromechanical property by finite element simulation. Construction and Building Materials, 2021, 293, 123522.	3.2	7
38	Influence of Different Fillers on Mechanical Properties of Porous Asphalt Mixtures Using Microstructural Finite-Element Analysis. Journal of Transportation Engineering Part B: Pavements, 2021, 147, 04021004.	0.8	6
39	Analyzing the effects of clogging of PA internal structure with artificial soiling experiments. International Journal of Transportation Science and Technology, 2019, 8, 383-393.	2.0	5
40	Study on the Water Stability of Polyurethane Concrete from Perspective of Polyurethane-Aggregate Interface. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	5
41	Sustainable High-Ductility Concrete with Rapid Self-Healing Characteristic by Adding Magnesium Oxide and Superabsorbent Polymer. Advances in Materials Science and Engineering, 2020, 2020, 1-12.	1.0	4
42	Comparison of the Polishing Resistances of Concrete Pavement Surface Textures Prepared with Different Technologies Using the Aachen Polishing Machine. Journal of Materials in Civil Engineering, 2021, 33, .	1.3	3
43	Reclamation of waste oils in asphalt modification towards enhanced low-temperature performance of pavement in cold region. International Journal of Pavement Engineering, 2023, 24, .	2.2	3
44	Effects of aging on rheological, chemical, and micromechanical properties of waterborne epoxy resin modified bitumen emulsion. International Journal of Pavement Engineering, 2023, 24, .	2.2	3
45	Performance Evaluation of Pervious Pavement Using Accelerated Pavement Testing System. , 2019, , .		2
46	Estimation of Hydraulic Properties in Permeable Pavement Subjected to Clogging Simulation. Advances in Civil Engineering, 2022, 2022, 1-13.	0.4	1
47	Investigations on microstructure characteristics of porous pavement based on X-ray CT scanning. Japanese Geotechnical Society Special Publication, 2019, 7, 609-614.	0.2	0