Xue Luo

List of Publications by Year in Descending Order

67 papers	1,015 citations	20 h-index	28 g-index
69 ext. papers	1,208 ext. citations	4.3 avg, IF	5.1 L-index

#	Paper	IF	Citations
67	Cyclic settlement of ballast layer due to train passages at high speed and its reduction by asphalt trackbed. *Construction and Building Materials*, **2022**, 318, 125956	6.7	0
66	Modeling percentages of cohesive and adhesive debonding in bitumen-aggregate interfaces using molecular dynamics approaches. *Applied Surface Science*, **2022**, 571, 151318	6.7	3
65	Relationships between Physical, Mechanical and Acoustic Properties of Asphalt Mixtures Using Ultrasonic Testing. *Buildings*, **2022**, 12, 306	3.2	
64	Automatic Inverse Analysis of Asphalt Pavement Field Aging Based on System Identification. *IEEE Transactions on Intelligent Transportation Systems*, **2022**, 1-10	6.1	
63	Stochastic fatigue damage in viscoelastic materials using probabilistic pseudo J-integral Paris' law. *Engineering Fracture Mechanics*, **2021**, 245, 107566	4.2	4
62	Estimation of resilient modulus of cement-treated construction and demolition waste with performance-related properties. *Construction and Building Materials*, **2021**, 283, 122107	6.7	2
61	Impact of Graphene Oxide on Zero Shear Viscosity, Fatigue Life and Low-Temperature Properties of Asphalt Binder. *Materials*, **2021**, 14,	3.5	6
60	An Improved Mechanistic-Empirical Creep Model for Unsaturated Soft and Stabilized Soils. *Materials*, **2021**, 14,	3.5	1
59	A kinetics-based model of fatigue crack growth rate in bituminous material. *International Journal of Fatigue*, **2021**, 148, 106185	5	9
58	Determination of flexible pavement deterioration conditions using Long-Term Pavement Performance database and artificial intelligence-based finite element model updating. *Structural Control and Health Monitoring*, **2021**, 28, e2671	4.5	7
57	Quantification of Railway Ballast Degradation by Abrasion Testing and Computer-Aided Morphology Analysis. *Journal of Materials in Civil Engineering*, **2021**, 33, 04020411	3	4
56	Evaluation of flexible pavement deterioration conditions using deflection profiles under moving loads. *Transportation Geotechnics*, **2021**, 26, 100434	4	8
55	Healing kinetics of asphalt binder based on a new testing approach. *Construction and Building Materials*, **2021**, 305, 124646	6.7	1
54	An assessment method of hydration degree of Rice husk ash blended cement considering temperature effect. *Construction and Building Materials*, **2021**, 304, 124534	6.7	1
53	High-Temperature Rheological Characteristics of Asphalt Binder Incorporated with Graphene Oxide and Predicting Its Rutting Potential Using Response Surface Method. *Journal of Materials in Civil Engineering*, **2021**, 33, 04021331	3	2
52	Micromechanics modeling of viscoelastic asphalt-filler composite system with and without fatigue cracks. *Materials and Design*, **2021**, 209, 109983	8.1	3
51	Investigation and Control of Cracks in Wet Joint of Concrete Box Girders. *Journal of Performance of Constructed Facilities*, **2021**, 35, 04021076	2	1

50	Coupled mechanical and kinetic modeling of recovery in asphalt mixtures. *Construction and Building Materials*, **2020**, 254, 118889	6.7	4
49	A new dynamic modulus predictive model for asphalt mixtures based on the law of mixtures. *Construction and Building Materials*, **2020**, 255, 119348	6.7	3
48	Characterization of Recovery in Asphalt Binders. *Materials*, **2020**, 13,	3.5	5
47	Evaluation of rutting potential of flexible pavement structures using energy-based pseudo variables. *Construction and Building Materials*, **2020**, 247, 118391	6.7	8
46	Energy-based mechanistic approach for crack growth characterization of asphalt binder. *Mechanics of Materials*, **2020**, 148, 103462	3.3	13
45	Kinetics of healing of asphalt mixtures. *Journal of Cleaner Production*, **2020**, 252, 119790	10.3	21
44	Energy-Based Kinetics Approach for Coupled Viscoplasticity and Viscofracture of Asphalt Mixtures. *Journal of Engineering Mechanics - ASCE*, **2020**, 146, 04020100	2.4	13
43	Determination of complex modulus gradients of flexible pavements using falling weight deflectometer and artificial intelligence. *Materials and Structures/Materiaux Et Constructions*, **2020**, 53, 1	3.4	11
42	Evaluation of complex Poisson's ratio of aged asphalt field cores using direct tension test and finite element simulation. *Construction and Building Materials*, **2020**, 261, 120329	6.7	7
41	Physical properties of graphene-oxide modified asphalt and performance analysis of its mixtures using response surface methodology. *International Journal of Pavement Engineering*, **2020**, 1-15	2.6	8
40	Development of a modulus of subgrade reaction model to improve slab-base interface bond sensitivity. *International Journal of Pavement Engineering*, **2020**, 21, 1794-1805	2.6	2
39	Mechanistic-empirical models for top-down cracking initiation of asphalt pavements. *International Journal of Pavement Engineering*, **2020**, 21, 464-473	2.6	15
38	Prediction of dynamic shear modulus of fine aggregate matrix using discrete element method and modified Hirsch model. *Mechanics of Materials*, **2019**, 138, 103148	3.3	14
37	A new long-term aging model for asphalt pavements using morphology-kinetics based approach. *Construction and Building Materials*, **2019**, 229, 117032	6.7	17
36	Development of a mechanistic-empirical model to predict equilibrium suction for subgrade soil. *Journal of Hydrology*, **2019**, 575, 221-233	6	6
35	A new short-term aging model for asphalt binders based on rheological activation energy. *Materials and Structures/Materiaux Et Constructions*, **2019**, 52, 1	3.4	9
34	Mechanical evaluation of aggregate gradation to characterize load carrying capacity and rutting resistance of asphalt mixtures. *Construction and Building Materials*, **2019**, 205, 499-510	6.7	34
33	Pavement Analysis and Design by Multiphysics. *Advances in Civil Engineering*, **2019**, 2019, 1-2	1.3	0

32	A calibrated mechanics-based model for top-down cracking of asphalt pavements. *Construction and Building Materials*, **2019**, 208, 102-112	6.7	26
31	3D simulation of deflection basin of pavements under high-speed moving loads. *Construction and Building Materials*, **2019**, 226, 868-878	6.7	20
30	Enhanced model for thermally induced transverse cracking of asphalt pavements. *Construction and Building Materials*, **2019**, 206, 130-139	6.7	16
29	Analysis of Strength Development and Soil-Water Characteristics of Rice Husk Ash-Lime Stabilized Soft Soil. *Materials*, **2019**, 12,	3.5	8
28	Kinetics-based aging prediction of asphalt mixtures using field deflection data. *International Journal of Pavement Engineering*, **2019**, 20, 287-297	2.6	17
27	Prediction of Soil-Water Characteristic Curve for Unbound Material Using Fredlund□Xing Equation-Based ANN Approach. *Journal of Materials in Civil Engineering*, **2018**, 30, 06018002	3	13
26	Use of an Artificial Neural Network Approach for the Prediction of Resilient Modulus for Unbound Granular Material. *Transportation Research Record*, **2018**, 2672, 23-33	1.7	23
25	Prediction of geogrid-reinforced flexible pavement performance using artificial neural network approach. *Road Materials and Pavement Design*, **2018**, 19, 1147-1163	2.6	17
24	Kinetics-based aging evaluation of in-service recycled asphalt pavement. *Journal of Cleaner Production*, **2018**, 200, 934-944	10.3	17
23	Energy-based crack initiation model for load-related top-down cracking in asphalt pavement. *Construction and Building Materials*, **2018**, 159, 587-597	6.7	22
22	Review of mechanistic-empirical modeling of top-down cracking in asphalt pavements. *Construction and Building Materials*, **2018**, 191, 1053-1070	6.7	18
21	Modeling Stress-Dependent Anisotropic Elastoplastic Unbound Granular Base in Flexible Pavements. *Transportation Research Record*, **2018**, 2672, 46-56	1.7	12
20	Numerical Modeling and Artificial Neural Network for Predicting J-Integral of Top-Down Cracking in Asphalt Pavement. *Transportation Research Record*, **2017**, 2631, 83-95	1.7	40
19	An inverse approach to determine complex modulus gradient of field-aged asphalt mixtures. *Materials and Structures/Materiaux Et Constructions*, **2017**, 50, 1	3.4	14
18	Mechanistic-empirical models for better consideration of subgrade and unbound layers influence on pavement performance. *Transportation Geotechnics*, **2017**, 13, 52-68	4	25
17	Time-temperature-aging-depth shift functions for dynamic modulus master curves of asphalt mixtures. *Construction and Building Materials*, **2017**, 157, 943-951	6.7	53
16	Numerical modeling of geogrid-reinforced flexible pavement and corresponding validation using large-scale tank test. *Construction and Building Materials*, **2016**, 122, 214-230	6.7	40
15	Implementation of pseudo J-integral based Paris□law for fatigue cracking in asphalt mixtures and pavements. *Materials and Structures/Materiaux Et Constructions*, **2016**, 49, 3713-3732	3.4	31

14	Characterization of Healing of Asphalt Mixtures Using Creep and Step-Loading Recovery Test. *Journal of Testing and Evaluation*, **2016**, 44, 20150135	1	8
13	Estimation of Resilient Modulus of Unbound Aggregates Using Performance-Related Base Course Properties. *Journal of Materials in Civil Engineering*, **2015**, 27, 04014188	3	69
12	Energy-Based Crack Initiation Criterion for Viscoelastoplastic Materials with Distributed Cracks. *Journal of Engineering Mechanics - ASCE*, **2015**, 141, 04014114	2.4	22
11	Mechanistic modeling of healing in asphalt mixtures using internal stress. *International Journal of Solids and Structures*, **2015**, 60-61, 35-47	3.1	19
10	Prediction of Field Aging Gradient in Asphalt Pavements. *Transportation Research Record*, **2015**, 2507, 19-28	1.7	39
9	Energy-based mechanistic approach for damage characterization of pre-flawed visco-elasto-plastic materials. *Mechanics of Materials*, **2014**, 70, 18-32	3.3	32
8	Characterization of recovery properties of asphalt mixtures. *Construction and Building Materials*, **2013**, 48, 610-621	6.7	21
7	Energy-Based Mechanistic Approach to Characterize Crack Growth of Asphalt Mixtures. *Journal of Materials in Civil Engineering*, **2013**, 25, 1198-1208	3	33
6	Characterization of Fatigue Damage in Asphalt Mixtures Using Pseudostrain Energy. *Journal of Materials in Civil Engineering*, **2013**, 25, 208-218	3	49
5	Characterization of Asphalt Mixtures Using Controlled-Strain Repeated Direct Tension Test. *Journal of Materials in Civil Engineering*, **2013**, 25, 194-207	3	24
4	Modified Paris's Law to Predict Entire Crack Growth in Asphalt Mixtures. *Transportation Research Record*, **2013**, 2373, 54-62	1.7	37
3	Fracture properties and potential of asphalt mixtures containing graphene oxide at low and intermediate temperatures. *International Journal of Pavement Engineering*,1-17	2.6	1
2	Backcalculation of damage density of in-service asphalt pavements using artificial intelligence-based finite element model updating. *Fatigue and Fracture of Engineering Materials and Structures*,	3	4
1	Development of equivalent stationary dynamic loads for moving vehicular loads using artificial intelligence-based finite element model updating. *Engineering With Computers*,1	4.5	2