

Imad L Al-Qadi

List of Publications by Year in descending order

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259
papers

7,302
citations

53660

45
h-index

95083

68
g-index

271
all docs

271
docs citations

271
times ranked

3014
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of the fracture-based flexibility index for asphalt concrete cracking potential using modified semi-circle bending test parameters. Construction and Building Materials, 2016, 115, 390-401.	3.2	208
2	Measuring layer thicknesses with GPR – Theory to practice. Construction and Building Materials, 2005, 19, 763-772.	3.2	207
3	Hybrid life cycle assessment for asphalt mixtures with high RAP content. Resources, Conservation and Recycling, 2014, 83, 77-86.	5.3	192
4	Effect of Mineral Filler Characteristics on Asphalt Mastic and Mixture Rutting Potential. Transportation Research Record, 2011, 2208, 33-39.	1.0	153
5	Viscoelastic Modeling and Field Validation of Flexible Pavements. Journal of Engineering Mechanics - ASCE, 2006, 132, 172-178.	1.6	138
6	Partial replacement of asphalt binder with bio-binder: characterisation and modification. International Journal of Pavement Engineering, 2012, 13, 515-522.	2.2	135
7	Model to Predict Pavement Temperature Profile: Development and Validation. Journal of Transportation Engineering, 2006, 132, 162-167.	0.9	129
8	Dynamic Analysis and in Situ Validation of Perpetual Pavement Response to Vehicular Loading. Transportation Research Record, 2008, 2087, 29-39.	1.0	125
9	Simulation of tyre-pavement interaction for predicting contact stresses at static and various rolling conditions. International Journal of Pavement Engineering, 2012, 13, 310-321.	2.2	110
10	Automatic detection of multiple pavement layers from GPR data. NDT and E International, 2008, 41, 69-81.	1.7	109
11	Dynamic Analysis of Thin Asphalt Pavements by Using Cross-Anisotropic Stress-Dependent Properties for Granular Layer. Transportation Research Record, 2010, 2154, 156-163.	1.0	106
12	Fracture Characterization of Asphalt Mixtures with High Recycled Content Using Illinois Semicircular Bending Test Method and Flexibility Index. Transportation Research Record, 2016, 2575, 130-137.	1.0	101
13	GPR signal de-noising by discrete wavelet transform. NDT and E International, 2009, 42, 696-703.	1.7	94
14	Combined Effect of Moving Wheel Loading and Three-Dimensional Contact Stresses on Perpetual Pavement Responses. Transportation Research Record, 2009, 2095, 53-61.	1.0	94
15	Flexible pavement responses to different loading amplitudes considering layer interface condition and lateral shear forces. International Journal of Pavement Engineering, 2006, 7, 73-86.	2.2	88
16	Development and validation for in situ asphalt mixture density prediction models. NDT and E International, 2011, 44, 369-375.	1.7	87
17	In-Place Hot-Mix Asphalt Density Estimation Using Ground-Penetrating Radar. Transportation Research Record, 2010, 2152, 19-27.	1.0	84
18	Environmental and economic analyses of recycled asphalt concrete mixtures based on material production and potential performance. Resources, Conservation and Recycling, 2015, 104, 141-151.	5.3	82

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19	Importance of Nonlinear Anisotropic Modeling of Granular Base for Predicting Maximum Viscoelastic Pavement Responses under Moving Vehicular Loading. Journal of Engineering Mechanics - ASCE, 2013, 139, 29-38.	1.6	78
20	Asphalt Portland Cement Concrete Composite: Laboratory Evaluation. Journal of Transportation Engineering, 1994, 120, 94-108.	0.9	72
21	Validity of Asphalt Binder Film Thickness Concept in Hot-Mix Asphalt. Transportation Research Record, 2008, 2057, 37-45.	1.0	72
22	An innovative method for measuring pavement dielectric constant using the extended CMP method with two air-coupled GPR systems. NDT and E International, 2014, 66, 90-98.	1.7	72
23	Vehicle energy consumption and an environmental impact calculation model for the transportation infrastructure systems. Journal of Cleaner Production, 2018, 174, 424-436.	4.6	71
24	Scattering analysis of ground-penetrating radar data to quantify railroad ballast contamination. NDT and E International, 2008, 41, 441-447.	1.7	68
25	Geogrid in Flexible Pavements. Transportation Research Record, 2008, 2045, 102-109.	1.0	67
26	Effect of Surface Friction on Tire-Pavement Contact Stresses during Vehicle Maneuvering. Journal of Engineering Mechanics - ASCE, 2014, 140, .	1.6	67
27	Effect of Transient Dynamic Loading on Flexible Pavements. Transportation Research Record, 2007, 1990, 129-140.	1.0	63
28	Characterisation of interface bonding between hot-mix asphalt overlay and concrete pavements: modelling and in-situ response to accelerated loading. International Journal of Pavement Engineering, 2012, 13, 181-196.	2.2	60
29	Mechanical Property Characterization of Warm-Mix Asphalt Prepared with Chemical Additives. Journal of Materials in Civil Engineering, 2014, 26, 304-311.	1.3	58
30	Evaluation of Surface-Related Pavement Damage due to Tire Braking. Road Materials and Pavement Design, 2010, 11, 101-121.	2.0	57
31	Interface Bonding between Hot-Mix Asphalt and Various Portland Cement Concrete Surfaces. Transportation Research Record, 2008, 2057, 46-53.	1.0	55
32	Impact Quantification of Wide-Base Tire Loading on Secondary Road Flexible Pavements. Journal of Transportation Engineering, 2011, 137, 630-639.	0.9	54
33	Algorithm development for the application of ground-penetrating radar on asphalt pavement compaction monitoring. International Journal of Pavement Engineering, 2016, 17, 189-200.	2.2	53
34	Application of regularized deconvolution technique for predicting pavement thin layer thicknesses from ground penetrating radar data. NDT and E International, 2015, 73, 1-7.	1.7	52
35	Calibration of FDTD Simulation of GPR Signal for Asphalt Pavement Compaction Monitoring. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1538-1548.	2.7	52
36	Measurement of Vertical Compressive Stress Pulse in Flexible Pavements: Representation for Dynamic Loading Tests. Transportation Research Record, 2002, 1816, 125-136.	1.0	51

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37	Difference between In Situ Flexible Pavement Measured and Calculated Stresses and Strains. Journal of Transportation Engineering, 2006, 132, 574-579.	0.9	51
38	Creep Behavior of Hot-Mix Asphalt due to Heavy Vehicular Tire Loading. Journal of Engineering Mechanics - ASCE, 2009, 135, 1265-1273.	1.6	51
39	Near-Surface Pavement Failure under Multiaxial Stress State in Thick Asphalt Pavement. Transportation Research Record, 2010, 2154, 91-99.	1.0	51
40	Prediction of pavement fatigue cracking at an accelerated testing section using asphalt mixture performance tests. International Journal of Pavement Engineering, 2018, 19, 264-278.	2.2	50
41	All for one: Centralized optimization of truck platoons to improve roadway infrastructure sustainability. Transportation Research Part C: Emerging Technologies, 2020, 114, 84-98.	3.9	50
42	Quantitative Effect of Elastomeric Modification on Binder Performance at Intermediate and High Temperatures. Journal of Materials in Civil Engineering, 2003, 15, 32-40.	1.3	49
43	Geogrid mechanism in low-volume flexible pavements: accelerated testing of full-scale heavily instrumented pavement sections. International Journal of Pavement Engineering, 2011, 12, 121-135.	2.2	49
44	Continuous real-time monitoring of flexible pavement layer density and thickness using ground penetrating radar. NDT and E International, 2018, 100, 48-54.	1.7	49
45	Railroad Ballast Evaluation Using Ground-Penetrating Radar. Transportation Research Record, 2010, 2159, 110-117.	1.0	47
46	Development of an analytic approach utilizing the extended common midpoint method to estimate asphalt pavement thickness with 3-D ground-penetrating radar. NDT and E International, 2016, 78, 29-36.	1.7	47
47	Accuracy of Current Complex Modulus Selection Procedure from Vehicular Load Pulse. Transportation Research Record, 2008, 2087, 81-90.	1.0	46
48	Effective Approach to Improve Pavement Drainage Layers. Journal of Transportation Engineering, 2004, 130, 658-664.	0.9	45
49	Mitigation of moisture damage in asphalt concrete: Testing techniques and additives/modifiers effectiveness. Construction and Building Materials, 2015, 84, 437-443.	3.2	45
50	In situ measurements of hot-mix asphalt dielectric properties. NDT and E International, 2001, 34, 427-434.	1.7	44
51	Data Analysis Techniques for GPR Used for Assessing Railroad Ballast in High Radio-Frequency Environment. Journal of Transportation Engineering, 2010, 136, 392-399.	0.9	44
52	Effects of Interface Conditions on Reflective Cracking Development in Hot-Mix Asphalt Overlays. Road Materials and Pavement Design, 2010, 11, 307-334.	2.0	43
53	Approach to Determining In Situ Dielectric Constant of Pavements: Development and Implementation at Interstate 81 in Virginia. Transportation Research Record, 2002, 1806, 81-87.	1.0	42
54	Successful Application of Ground-Penetrating Radar for Quality Assurance-Quality Control of New Pavements. Transportation Research Record, 2003, 1861, 86-97.	1.0	41

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55	Innovative Approach for Asphalt Pavement Compaction Monitoring with Ground-Penetrating Radar. Transportation Research Record, 2013, 2347, 79-87.	1.0	40
56	Pavement drainage pipe condition assessment by GPR image reconstruction using FDTD modeling. Construction and Building Materials, 2017, 154, 1283-1293.	3.2	39
57	Field Application of Ground-Penetrating Radar for Measurement of Asphalt Mixture Density: Case Study of Illinois Route 72 Overlay. Transportation Research Record, 2012, 2304, 133-141.	1.0	38
58	Influence of Filler Fractional Voids on Mastic and Mixture Performance. Transportation Research Record, 2012, 2294, 74-80.	1.0	37
59	Analysis of Near-Surface Cracking under Critical Loading Conditions Using Uncracked and Cracked Pavement Models. Journal of Transportation Engineering, 2013, 139, 992-1000.	0.9	37
60	Pattern recognition algorithms for density estimation of asphalt pavement during compaction: a simulation study. Journal of Applied Geophysics, 2014, 107, 8-15.	0.9	37
61	Effect of moisture on asphaltic concrete at microwave frequencies. IEEE Transactions on Geoscience and Remote Sensing, 1991, 29, 710-717.	2.7	36
62	Performance Characterization of Hot In-Place Recycled Asphalt Mixtures. Journal of Transportation Engineering, 2014, 140, .	0.9	36
63	Life-Cycle Greenhouse Gases and Energy Consumption for Material and Construction Phases of Pavement with Traffic Delay. Transportation Research Record, 2014, 2428, 27-34.	1.0	36
64	Damage zone development in heterogeneous asphalt concrete. Engineering Fracture Mechanics, 2017, 182, 356-371.	2.0	36
65	Prediction of thin asphalt concrete overlay thickness and density using nonlinear optimization of GPR data. NDT and E International, 2018, 100, 20-30.	1.7	36
66	Optimizing rejuvenator content in asphalt concrete to enhance its durability. Construction and Building Materials, 2018, 179, 642-648.	3.2	36
67	Development of regularization methods on simulated ground-penetrating radar signals to predict thin asphalt overlay thickness. Signal Processing, 2017, 132, 261-271.	2.1	35
68	Algorithm development for real-time thin asphalt concrete overlay compaction monitoring using ground-penetrating radar. NDT and E International, 2019, 104, 114-123.	1.7	35
69	Pavement Response to Dual Tires and New Wide-Base Tires at Same Tire Pressure. Transportation Research Record, 2002, 1806, 38-47.	1.0	34
70	Optimization of antenna configuration in multiple-frequency ground penetrating radar system for railroad substructure assessment. NDT and E International, 2010, 43, 20-28.	1.7	34
71	Geogrid-Reinforced Low-Volume Flexible Pavements: Pavement Response and Geogrid Optimal Location. Journal of Transportation Engineering, 2012, 138, 1083-1090.	0.9	34
72	Hyperelastic Modeling of Wide-Base Tire and Prediction of Its Contact Stresses. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	34

#	ARTICLE	IF	CITATIONS
73	Real-Time Density and Thickness Estimation of Thin Asphalt Pavement Overlay During Compaction Using Ground Penetrating Radar Data. <i>Surveys in Geophysics</i> , 2020, 41, 431-445.	2.1	34
74	Wander 2D: a flexible pavement design framework for autonomous and connected trucks. <i>International Journal of Pavement Engineering</i> , 2022, 23, 121-136.	2.2	34
75	Optimization of Ground-Penetrating Radar Data to Predict Layer Thicknesses in Flexible Pavements. <i>Journal of Transportation Engineering</i> , 2003, 129, 93-99.	0.9	33
76	Investigation of viscoelastic fracture fields in asphalt mixtures using digital image correlation. <i>International Journal of Fracture</i> , 2017, 205, 37-56.	1.1	33
77	Fracture properties of asphalt concrete under various displacement conditions and temperatures. <i>Construction and Building Materials</i> , 2019, 222, 332-341.	3.2	33
78	Model uncertainty analysis using data analytics for life-cycle assessment (LCA) applications. <i>International Journal of Life Cycle Assessment</i> , 2019, 24, 945-959.	2.2	33
79	Tecnico accelerated ageing (TEAGE) – a new laboratory approach for bituminous mixture ageing simulation. <i>International Journal of Pavement Engineering</i> , 2020, 21, 753-765.	2.2	33
80	Factors Impacting Monitoring Asphalt Pavement Density by Ground Penetrating Radar. <i>NDT and E International</i> , 2020, 115, 102296.	1.7	33
81	Optimization of Tack Coat Application Rate for Geocomposite Membrane on Bridge Decks. <i>Transportation Research Record</i> , 2000, 1740, 143-150.	1.0	30
82	Development of a Pressurized Blister Test for Interface Characterization of Aggregate Highly Polymerized Bituminous Materials. <i>Journal of Materials in Civil Engineering</i> , 2011, 23, 656-663.	1.3	30
83	Asphalt Pavements with High Reclaimed Asphalt Pavement Content. <i>Transportation Research Record</i> , 2014, 2456, 161-169.	1.0	30
84	Tire-pavement interaction modelling: hyperelastic tire and elastic pavement. <i>Road Materials and Pavement Design</i> , 2017, 18, 1067-1083.	2.0	30
85	Runway Instrumentation and Response Measurements. <i>Transportation Research Record</i> , 2010, 2153, 162-169.	1.0	28
86	Effect of Wide-Base Tires on Nationwide Flexible Pavement Systems: Numerical Modeling. <i>Transportation Research Record</i> , 2016, 2590, 104-112.	1.0	28
87	Fracture-Based Friction Model for Pavement Interface Characterization. <i>Transportation Research Record</i> , 2008, 2057, 54-63.	1.0	27
88	Interface Bonding between Hot-Mix Asphalt and various Portland Cement Concrete Surfaces. <i>Transportation Research Record</i> , 2009, 2127, 20-28.	1.0	27
89	One for all: Decentralized optimization of lateral position of autonomous trucks in a platoon to improve roadway infrastructure sustainability. <i>Transportation Research Part C: Emerging Technologies</i> , 2020, 120, 102783.	3.9	27
90	Construction and Instrumentation of Geosynthetically Stabilized Secondary Road Test Sections. <i>Transportation Research Record</i> , 1996, 1534, 50-57.	1.0	26

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91	New Generation of Wide-Base Tires. Transportation Research Record, 2007, 2008, 100-109.	1.0	26
92	Achieving Desired Volumetrics and Performance for Mixtures with High Percentage of Reclaimed Asphalt Pavement. Transportation Research Record, 2012, 2294, 34-42.	1.0	26
93	Ground-Penetrating Radar Data to Develop Wavelet Technique for Quantifying Railroad Ballast Fouling Conditions. Transportation Research Record, 2012, 2289, 95-102.	1.0	25
94	Impact of Wide-Base Tires on Pavements: Results from Instrumentation Measurements and Modeling Analysis. Transportation Research Record, 2012, 2304, 169-176.	1.0	25
95	Three-Dimensional Finite Element Modeling of Instrumented Airport Runway Pavement Responses. Transportation Research Record, 2013, 2367, 76-83.	1.0	25
96	Introducing realistic tire-pavement contact stresses into Pavement Analysis using Nonlinear Damage Approach (PANDA). International Journal of Pavement Engineering, 2017, 18, 1027-1038.	2.2	25
97	Super-Resolution of 3-D GPR Signals to Estimate Thin Asphalt Overlay Thickness Using the XCOMP Method. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 893-901.	2.7	25
98	Development of a time-frequency approach to quantify railroad ballast fouling condition using ultra-wide band ground-penetrating radar data. International Journal of Pavement Engineering, 2010, 11, 269-279.	2.2	24
99	Impact of Tire Loading and Tire Pressure on Measured 3D Contact Stresses. , 2013, , .		24
100	Performance Characterization of Asphalt Mixtures at High Asphalt Binder Replacement with Recycled Asphalt Shingles. Transportation Research Record, 2013, 2371, 105-112.	1.0	24
101	Analytical Approach for Predicting Three-Dimensional Tire-Pavement Contact Load. Transportation Research Record, 2014, 2456, 75-84.	1.0	24
102	Managing Multiple Mandates: A System of Systems Model to Analyze Strategies for Producing Cellulosic Ethanol and Reducing Riverine Nitrate Loads in the Upper Mississippi River Basin. Environmental Science & Technology, 2015, 49, 11932-11940.	4.6	24
103	Mechanics based model for predicting structure-induced rolling resistance (SRR) of the tire-pavement system. Mechanics of Time-Dependent Materials, 2016, 20, 579-600.	2.3	24
104	Quantifying sustainable strategies for the construction of highway pavements in Illinois. Transportation Research, Part D: Transport and Environment, 2017, 51, 1-13.	3.2	24
105	Fatigue Shift Factors to Predict HMA Performance. International Journal of Pavement Engineering, 2003, 4, 69-76.	2.2	23
106	Time-Frequency Approach for Ground Penetrating Radar Data Analysis to Assess Railroad Ballast Condition. Research in Nondestructive Evaluation, 2008, 19, 219-237.	0.5	23
107	A strain-controlled hot-mix asphalt fatigue model considering low and high cycles. International Journal of Pavement Engineering, 2010, 11, 565-574.	2.2	23
108	Regional upstream life-cycle impacts of petroleum products in the United States. Journal of Cleaner Production, 2016, 139, 1138-1149.	4.6	23

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109	Quantitative Assessment of the Effect of Wide-Base Tires on Pavement Response by Finite Element Analysis. Transportation Research Record, 2016, 2590, 37-43.	1.0	22
110	Using binder and mixture space diagrams to evaluate the effect of re-refined engine oil bottoms on binders and mixtures after ageing. Road Materials and Pavement Design, 2017, 18, 154-182.	2.0	22
111	A Simplified Overlay Design Model against Reflective Cracking Utilizing Service Life Prediction. Road Materials and Pavement Design, 2004, 5, 169-191.	2.0	21
112	Finite Element Method Modeling of Reflective Cracking Initiation and Propagation. Transportation Research Record, 2006, 1949, 32-42.	1.0	21
113	Effects of Curing Time and Reheating on Performance of Warm Stone-Matrix Asphalt. Journal of Materials in Civil Engineering, 2012, 24, 1422-1428.	1.3	21
114	Scenarios Developed for Improved Sustainability of Illinois Tollway. Transportation Research Record, 2015, 2523, 11-18.	1.0	21
115	System of Systems Model for Analysis of Biofuel Development. Journal of Infrastructure Systems, 2015, 21, .	1.0	21
116	Real-Time Monitoring of Asphalt Concrete Pavement Density during Construction using Ground Penetrating Radar: Theory to Practice. Transportation Research Record, 2019, 2673, 329-338.	1.0	21
117	In-Situ Validation of Three-Dimensional Pavement Finite Element Models. , 2016, , 145-159.		20
118	Impact of high recycled mixed on HMA overlay crack development rate. Road Materials and Pavement Design, 2017, 18, 311-327.	2.0	20
119	Developing Machine-Learning Models to Predict Airfield Pavement Responses. Transportation Research Record, 2018, 2672, 23-34.	1.0	20
120	Effects of Pavement Condition on LCCA User Costs. Transportation Research Record, 2019, 2673, 339-350.	1.0	20
121	Finite Element Method Modeling of Reflective Cracking Initiation and Propagation: Investigation of the Effect of Steel Reinforcement Interlayer on Retarding Reflective Cracking in Hot-Mix Asphalt Overlay. , 0, .		20
122	Early-age performance characterization of hot-mix asphalt overlay with varying amounts of asphalt binder replacement. Construction and Building Materials, 2017, 153, 294-306.	3.2	19
123	New Stochastic Approach of Vehicle Energy Dissipation on Nondeformable Rough Pavements. Journal of Engineering Mechanics - ASCE, 2017, 143, .	1.6	19
124	Predicting Pavement Roughness Using Deep Learning Algorithms. Transportation Research Record, 2021, 2675, 1062-1072.	1.0	19
125	Comparing Resilient Modulus and Dynamic Modulus of Hot-Mix Asphalt as Material Properties for Flexible Pavement Design. , 0, .		19
126	Effect of Moisture Content on Calculated Dielectric Properties of Asphalt Concrete Pavements from Ground-Penetrating Radar Measurements. Remote Sensing, 2022, 14, 34.	1.8	19

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127	Modeling of Strain Energy Absorbers for Rehabilitated Cracked Flexible Pavements. Journal of Transportation Engineering, 2005, 131, 653-661.	0.9	18
128	Full-depth flexible pavement responses to different truck tyre geometry configurations. International Journal of Pavement Engineering, 2014, 15, 512-520.	2.2	18
129	Effects of Pavement Surface Roughness and Congestion on Expected Freeway Traffic Energy Consumption. Transportation Research Record, 2015, 2503, 10-19.	1.0	18
130	Development of Adjustment Factors for MEPDG Pavement Responses Utilizing Finite-Element Analysis. Journal of Transportation Engineering Part A: Systems, 2017, 143, .	0.8	18
131	Viscoelastic and Poisson's ratio characterization of asphalt materials: critical review and numerical simulations. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	18
132	Data Collection and Management of the Instrumented Smart Road Flexible Pavement Sections. Transportation Research Record, 2001, 1769, 142-151.	1.0	17
133	Validated Mechanistic Model for Geogrid Base Reinforced Flexible Pavements. Journal of Transportation Engineering, 2009, 135, 915-926.	0.9	17
134	Field and Laboratory Evaluation of Fracture Resistance of Illinois Hot-Mix Asphalt Overlay Mixtures. Transportation Research Record, 2009, 2127, 146-154.	1.0	17
135	Baseline rolling resistance for tires' on-road fuel efficiency using finite element modeling. International Journal of Pavement Engineering, 2017, 18, 424-432.	2.2	17
136	Effectiveness of Steel Reinforcing Nettings in Combating Fatigue Cracking in New Flexible Pavement Systems. Journal of Transportation Engineering, 2005, 131, 37-45.	0.9	16
137	Testing of Fine Asphalt Mixtures to Quantify Effectiveness of Asphalt Binder Replacement Using Recycled Shingles. Transportation Research Record, 2014, 2445, 103-112.	1.0	16
138	Impact of Pavement Roughness and Deflection on Fuel Consumption Using Energy Dissipation. Journal of Engineering Mechanics - ASCE, 2019, 145, .	1.6	16
139	Influence of mix design parameters on asphalt concrete aging rate using I-FIT specimens. Construction and Building Materials, 2019, 200, 181-187.	3.2	16
140	Cracking prediction of asphalt concrete using fracture and strength tests. International Journal of Pavement Engineering, 2022, 23, 3333-3345.	2.2	16
141	Construction and Instrumentation of Geosynthetically Stabilized Secondary Road Test Sections. , 0, .		16
142	Modification of Bending Beam Rheometer Specimen for Low-Temperature Evaluation of Bituminous Crack Sealants. Transportation Research Record, 2005, 1933, 96-106.	1.0	15
143	Interface Layer Tack Coat Optimization. Transportation Research Record, 2013, 2372, 53-60.	1.0	15
144	Field Validation of Laboratory-Predicted Low-Temperature Performance of Hot-Poured Crack Sealants. Transportation Research Record, 2014, 2431, 57-66.	1.0	15

#	ARTICLE	IF	CITATIONS
145	Field Aging and Development of Aging Model for Hot-Poured Crack Sealants. Transportation Research Record, 2015, 2481, 90-99.	1.0	15
146	4.75 mm SMA Performance and Cost-Effectiveness for Asphalt Thin Overlays. International Journal of Pavement Engineering, 2016, 17, 799-809.	2.2	15
147	Efficient surrogate method for predicting pavement response to various tire configurations. Neural Computing and Applications, 2017, 28, 1355-1367.	3.2	15
148	Development of a Life-Cycle Assessment Tool to Quantify the Environmental Impacts of Airport Pavement Construction. Transportation Research Record, 2017, 2603, 89-97.	1.0	15
149	Stochastic Analysis of Energy Dissipation of a Half-Car Model on Nondeformable Rough Pavement. Journal of Transportation Engineering Part B: Pavements, 2017, 143, .	0.8	15
150	Impact of Wide-Base Tires on Pavements: A National Study. Transportation Research Record, 2018, 2672, 186-196.	1.0	15
151	Micromechanical finite element modeling of moisture damage in bituminous composite materials. Construction and Building Materials, 2015, 80, 9-17.	3.2	14
152	Semicoupled Modeling of Interaction between Deformable Tires and Pavements. Journal of Transportation Engineering Part A: Systems, 2017, 143, .	0.8	14
153	Life-cycle economic and environmental assessment of warm stone mastic asphalt. Transportmetrica A: Transport Science, 2018, 14, 562-575.	1.3	14
154	Development of a Simulated Three-Dimensional Truck Model to Predict Excess Fuel Consumption Resulting from Pavement Roughness. Transportation Research Record, 2021, 2675, 1444-1456.	1.0	14
155	Development of a Numerical Model to Predict the Dielectric Properties of Heterogeneous Asphalt Concrete. Sensors, 2021, 21, 2643.	2.1	14
156	Quantification of Pavement Damage Caused by Dual and Wide-Base Tires. Transportation Research Record, 2005, 1940, 125-135.	1.0	13
157	Threshold Identification and Field Validation of Performance-Based Guidelines to Select Hot-Poured Crack Sealants. Transportation Research Record, 2010, 2150, 87-95.	1.0	13
158	Railway Ballast Fouling Detection Using GPR Data: Introducing a Combined Time-Frequency and Discrete Wavelet Techniques. Near Surface Geophysics, 2016, 14, 145-153.	0.6	13
159	Impact of Specimen Configuration and Characteristics on Illinois Flexibility Index. Transportation Research Record, 2018, 2672, 383-393.	1.0	13
160	Environmental and economic impact of using new-generation wide-base tires. International Journal of Life Cycle Assessment, 2019, 24, 753-766.	2.2	13
161	Stochastic Analysis of Rolling Resistance Energy Dissipation for a Tractor-Trailer Model. Transportation Research Record, 2019, 2673, 593-603.	1.0	13
162	Quantification of Pavement Damage Caused by Dual and Wide-Base Tires. , 0, .		13

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163	Viscoelastic Modeling of Straight Run and Modified Binders Using the Matching Function Approach. International Journal of Pavement Engineering, 2002, 3, 53-61.	2.2	12
164	Accuracy of Ground-Penetrating Radar for Estimating Rigid and Flexible Pavement Layer Thicknesses. Transportation Research Record, 2005, 1940, 69-78.	1.0	12
165	Importance of Heterogeneity in Asphalt Pavement Modeling. Journal of Engineering Mechanics - ASCE, 2018, 144, 04018060.	1.6	12
166	Total Recycled Asphalt Mixes: Characteristics and Field Performance. Transportation Research Record, 2019, 2673, 149-162.	1.0	12
167	Finite Element Modeling of Reflective Cracking under Moving Vehicular Loading: Investigation of the Mechanism of Reflective Cracking in Hot-Mix Asphalt Overlays Reinforced with Interlayer Systems. , 2008, , .		11
168	Short-Term Performance of Plant-Mixed Warm Stone Mastic Asphalt: Laboratory Testing and Field Evaluation. Transportation Research Record, 2012, 2306, 86-94.	1.0	11
169	Effect of Chemical Composition of Bio- and Petroleum-Based Modifiers on Asphalt Binder Rheology. Applied Sciences (Switzerland), 2020, 10, 3249.	1.3	11
170	Measuring Rebar Cover Depth in Rigid Pavements with Ground-Penetrating Radar. , 0, .		11
171	Sand Mix Interlayer to Control Reflective Cracking in Hot-Mix Asphalt Overlay. Transportation Research Record, 2011, 2227, 53-60.	1.0	10
172	Optimal pavement design and rehabilitation planning using a mechanistic-empirical approach. EURO Journal on Transportation and Logistics, 2015, 4, 57-73.	1.3	10
173	Computational micromechanical analysis of the representative volume element of bituminous composite materials. Mechanics of Time-Dependent Materials, 2016, 20, 441-453.	2.3	10
174	Contact Phenomenon of Free-Rolling Wide-Base Tires: Effect of Speed and Temperature. Journal of Transportation Engineering, 2016, 142, .	0.9	10
175	Development of a Modified Adhesion Test for Hot-Poured Asphalt Crack Sealants. Transportation Research Record, 2017, 2612, 85-95.	1.0	10
176	Homogeneous versus Heterogeneous Response of a Flexible Pavement Structure: Strain and Domain Analyses. Journal of Engineering Mechanics - ASCE, 2019, 145, .	1.6	10
177	Signal Stability and the Height-Correction Method for Ground-Penetrating Radar In Situ Asphalt Concrete Density Prediction. Transportation Research Record, 2021, 2675, 835-847.	1.0	10
178	Performance of Geocomposite Membrane as Pavement Moisture Barrier. Transportation Research Record, 2001, 1772, 168-173.	1.0	9
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