

Eyad Masad

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80
papers

2,701
citations

27
h-index

50
g-index

84
ext. papers

3,068
ext. citations

3
avg, IF

5.29
L-index

#	Paper	IF	Citations
80	Internal Structure Characterization of Asphalt Concrete Using Image Analysis. <i>Journal of Computing in Civil Engineering</i> , 1999 , 13, 88-95	5	260
79	Moisture susceptibility of asphalt mixtures, Part 1: mechanisms. <i>International Journal of Pavement Engineering</i> , 2008 , 9, 81-98	2.6	236
78	Micromechanical Modeling of the Viscoelastic Behavior of Asphalt Mixtures Using the Discrete-Element Method. <i>International Journal of Geomechanics</i> , 2007 , 7, 131-139	3.1	121
77	Modeling and Experimental Measurements of Strain Distribution in Asphalt Mixes. <i>Journal of Transportation Engineering</i> , 2001 , 127, 477-485		120
76	Correlation of Fine Aggregate Imaging Shape Indices with Asphalt Mixture Performance. <i>Transportation Research Record</i> , 2001 , 1757, 148-156	1.7	120
75	Surface Free Energy to Identify Moisture Sensitivity of Materials for Asphalt Mixes. <i>Transportation Research Record</i> , 2007 , 2001, 37-45	1.7	117
74	A unified method for the analysis of controlled-strain and controlled-stress fatigue testing. <i>International Journal of Pavement Engineering</i> , 2008 , 9, 233-246	2.6	90
73	Chemical analysis of surface and bulk of asphalt binders aged with accelerated weathering tester and standard aging methods. <i>Fuel</i> , 2017 , 202, 366-379	7.1	72
72	Application of Imaging Techniques to Geometry Analysis of Aggregate Particles. <i>Journal of Computing in Civil Engineering</i> , 2004 , 18, 75-82	5	72
71	Computational and experimental evaluation of hydraulic conductivity anisotropy in hot-mix asphalt. <i>International Journal of Pavement Engineering</i> , 2007 , 8, 29-43	2.6	70
70	Microstructural Finite-Element Analysis of Influence of Localized Strain Distribution on Asphalt Mix Properties. <i>Journal of Engineering Mechanics - ASCE</i> , 2002 , 128, 1105-1114	2.4	70
69	Limits on Adhesive Bond Energy for Improved Resistance of Hot-Mix Asphalt to Moisture Damage		70
68	Three dimensional simulation of fluid flow in X-ray CT images of porous media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2004 , 28, 1327-1360	4	66
67	Moisture susceptibility of asphalt mixtures, Part 2: characterisation and modelling. <i>International Journal of Pavement Engineering</i> , 2008 , 9, 99-114	2.6	64
66	Experimental Measurement and Numerical Simulation of Water Vapor Diffusion through Asphalt Pavement Materials. <i>Journal of Materials in Civil Engineering</i> , 2010 , 22, 588-598	3	54
65	Micromechanical modeling of the influence of material properties on moisture-induced damage in asphalt mixtures. <i>Construction and Building Materials</i> , 2010 , 24, 1184-1192	6.7	53
64	Nonlinearly viscoelastic analysis of asphalt mixes subjected to shear loading. <i>Mechanics of Time-Dependent Materials</i> , 2007 , 11, 91-110	1.2	53

63	Probabilistic Analysis of Fracture in Asphalt Mixtures Caused by Moisture Damage. <i>Transportation Research Record</i> , 2008 , 2057, 28-36	1.7	50
62	Effect of recycling agents in recycled asphalt binders observed with microstructural and rheological tests. <i>Construction and Building Materials</i> , 2018 , 158, 61-74	6.7	47
61	Microstructural properties of warm mix asphalt before and after laboratory-simulated long-term ageing. <i>Road Materials and Pavement Design</i> , 2015 , 16, 2-20	2.6	46
60	Experimental-based model for predicting the skid resistance of asphalt pavements. <i>International Journal of Pavement Engineering</i> , 2013 , 14, 24-35	2.6	44
59	Effects of coarse aggregate angularity and asphalt binder on laboratory-measured permanent deformation properties of HMA. <i>International Journal of Pavement Engineering</i> , 2009 , 10, 19-28	2.6	43
58	Studying the effect of microstructural properties on the mechanical degradation of asphalt mixtures. <i>Construction and Building Materials</i> , 2015 , 93, 70-83	6.7	38
57	The heterogeneity and mechanical response of hot mix asphalt laboratory specimens. <i>International Journal of Pavement Engineering</i> , 2010 , 11, 107-121	2.6	37
56	Development of a Model for Asphalt Pavement Skid Resistance Based on Aggregate Characteristics and Gradation. <i>Journal of Transportation Engineering</i> , 2011 , 137, 863-873		35
55	Measurements of the moisture diffusion coefficient of asphalt mixtures and its relationship to mixture composition. <i>International Journal of Pavement Engineering</i> , 2009 , 10, 389-399	2.6	32
54	Evolution of the microstructure of unmodified and polymer modified asphalt binders with aging in an accelerated weathering tester. <i>Journal of Microscopy</i> , 2016 , 263, 341-56	1.9	29
53	Probabilistic analysis of fatigue life for asphalt mixtures using the viscoelastic continuum damage approach. <i>Construction and Building Materials</i> , 2016 , 126, 227-244	6.7	26
52	Relationship between bond energy and total work of fracture for asphalt binder-aggregate systems. <i>Road Materials and Pavement Design</i> , 2012 , 13, 281-303	2.6	23
51	Quantification of Damage in the Dynamic Complex Modulus and Flow Number Tests Using X-Ray Computed Tomography. <i>Journal of Materials in Civil Engineering</i> , 2011 , 23, 1687-1696	3	21
50	Influence of aggregate morphology on the mechanical performance of asphalt mixtures. <i>Road Materials and Pavement Design</i> , 2018 , 19, 972-991	2.6	20
49	3D Concrete Printing Sustainability: A Comparative Life Cycle Assessment of Four Construction Method Scenarios. <i>Buildings</i> , 2020 , 10, 245	3.2	20
48	New Methodology for Shape Classification of Aggregates		19
47	Effects of Environmental Factors on the Chemical Composition of Asphalt Binders. <i>Energy & Fuels</i> , 2019 , 33, 2614-2624	4.1	19
46	Comparative evaluation of fatigue resistance of warm fine aggregate asphalt mixtures. <i>Construction and Building Materials</i> , 2016 , 109, 8-16	6.7	18

45	Analysis of Aggregate Shape Characteristics and its Relationship to Hot Mix Asphalt Performance. <i>Road Materials and Pavement Design</i> , 2007 , 8, 317-350	2.6	18
44	Sensitivity of HMA Performance to Aggregate Shape Measured Using Conventional and Image Analysis Methods. <i>Road Materials and Pavement Design</i> , 2004 , 5, 477-498	2.6	18
43	Fundamental evaluation of moisture damage in warm-mix asphalts. <i>Road Materials and Pavement Design</i> , 2017 , 18, 258-283	2.6	17
42	Finite element modelling of field compaction of hot mix asphalt. Part I: Theory. <i>International Journal of Pavement Engineering</i> , 2016 , 17, 13-23	2.6	16
41	Finite element modelling of field compaction of hot mix asphalt. Part II: Applications. <i>International Journal of Pavement Engineering</i> , 2016 , 17, 24-38	2.6	16
40	Aging evaluation of asphalt samples with Low Field Nuclear Magnetic Resonance. <i>Materials Characterization</i> , 2017 , 128, 165-175	3.9	16
39	Application of ground-penetrating radar in measuring the density of asphalt pavements and its relationship to mechanical properties. <i>International Journal of Pavement Engineering</i> , 2016 , 17, 503-516	2.6	16
38	Microstructural, chemical and thermal analyses of Warm Mix Asphalt 2014 , 157-168		16
37	Modelling moisture-mechanical damage in asphalt mixtures using random microstructures and a continuum damage formulation. <i>Road Materials and Pavement Design</i> , 2017 , 18, 1-21	2.6	15
36	Polyampholyte polymer as a stabiliser for subgrade soil. <i>International Journal of Pavement Engineering</i> , 2018 , 19, 467-478	2.6	15
35	Evaluation of ageing in asphalt cores using low-field nuclear magnetic resonance. <i>International Journal of Pavement Engineering</i> , 2016 , 17, 847-860	2.6	15
34	Stochastic micromechanical model of the deterioration of asphalt mixtures subject to moisture diffusion processes. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2011 , 35, 1079-1097	4	15
33	Numerical analysis of moisture vapor diffusion in asphalt mixtures using digital images. <i>Materials and Structures/Materiaux Et Constructions</i> , 2010 , 43, 897-911	3.4	15
32	Effect of treatment temperature on the microstructure of asphalt binders: insights on the development of dispersed domains. <i>Journal of Microscopy</i> , 2016 , 262, 12-27	1.9	14
31	The influence of moisture on the evolution of the microstructure of asphalt binders with aging. <i>Road Materials and Pavement Design</i> , 2020 , 21, 331-346	2.6	14
30	Effect of warm mix additives on the interfacial bonding characteristics of asphalt binders. <i>International Journal of Pavement Engineering</i> , 2018 , 19, 1111-1124	2.6	13
29	Nano-Mechanical Characterization of Mastic, Aggregate, and Interfacial Zone in Asphalt Composites. <i>Journal of Testing and Evaluation</i> , 2013 , 41, 20120178	1	13
28	Incorporating the heterogeneity of asphalt mixtures in flexible pavements subjected to moisture diffusion. <i>International Journal of Pavement Engineering</i> , 2015 , 16, 432-444	2.6	12

27	Modelling sand-asphalt mixtures within a thermodynamic framework: theory and application to torsion experiments. <i>International Journal of Pavement Engineering</i> , 2009 , 10, 115-131	2.6	12
26	Finite Element Studies of Skid Resistance under Hot Weather Condition. <i>Transportation Research Record</i> , 2018 , 2672, 382-394	1.7	12
25	Influence of different sources of microstructural heterogeneity on the degradation of asphalt mixtures. <i>International Journal of Pavement Engineering</i> , 2018 , 19, 9-23	2.6	10
24	Linear and nonlinear viscoelastic and viscoplastic analysis of asphalt binders with warm mix asphalt additives. <i>International Journal of Pavement Engineering</i> , 2018 , 19, 857-864	2.6	9
23	Evaluation of Asphalt Mix Stability Using Compaction Properties and Aggregate Structure Analysis. <i>International Journal of Pavement Engineering</i> , 2003 , 4, 87-103	2.6	9
22	Evolution of the Microstructure of Warm Mix Asphalt Binders with Aging in an Accelerated Weathering Tester. <i>Journal of Materials in Civil Engineering</i> , 2017 , 29, 04017162	3	7
21	Influence of Chemical Constituents of Asphalt Binders on Their Rheological Properties. <i>Transportation Research Record</i> , 2019 , 2673, 458-466	1.7	7
20	Simulation of Mass, Linear Momentum, and Energy Transport in Concrete with Varying Moisture Content during Cooling to Cryogenic Temperatures. <i>Transport in Porous Media</i> , 2016 , 112, 139-166	3.1	7
19	Modelling constant displacement rate experiments of asphalt concrete using a thermodynamic framework. <i>International Journal of Pavement Engineering</i> , 2005 , 6, 241-256	2.6	7
18	Properties and Microstructure Distribution of High-Performance Thermal Insulation Concrete. <i>Materials</i> , 2020 , 13,	3.5	7
17	Performance and blending evaluation of asphalt mixtures containing reclaimed asphalt pavement. <i>Road Materials and Pavement Design</i> , 2020 , 1-17	2.6	6
16	Effects of ageing and recycling agents on the multiscale properties of binders with high RAP contents. <i>International Journal of Pavement Engineering</i> , 2020 , 1-23	2.6	6
15	Influence of polymer structure and amount on microstructure and properties of polyethylene-modified asphalt binders. <i>Materials and Structures/Materiaux Et Constructions</i> , 2021 , 54, 1	3.4	6
14	Performance Evaluation of Full-Scale Sections of Asphalt Pavements in the State of Qatar. <i>Journal of Performance of Constructed Facilities</i> , 2015 , 29, 04014123	2	5
13	Nanomechanical mapping of rejuvenated asphalt binders. <i>Road Materials and Pavement Design</i> , 2020 , 1-20	2.6	5
12	Anisotropic Viscoplastic Continuum Damage Model for Asphalt Mixes 2003 , 111		5
11	Development of predictive models for skid resistance of asphalt pavements and seal coat. <i>International Journal of Pavement Engineering</i> , 1-13	2.6	5
10	A Probabilistic Model for Predicting the Resistance of Aggregates in Asphalt Mixes to Fracture. <i>Road Materials and Pavement Design</i> , 2010 , 11, 335-360	2.6	4

9	Nanoscale viscoelastic characterization of asphalt binders using the AFM-nDMA test. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020 , 53, 1	3-4	4
8	Multiscale Characterization of Aging and Rejuvenation in Asphalt Binder Blends with High RAP Contents. <i>Journal of Materials in Civil Engineering</i> , 2021 , 33, 04021287	3	4
7	A framework for the analysis of damage and recovery characteristics of asphalt mixtures. <i>Road Materials and Pavement Design</i> , 2020 , 1-14	2.6	2
6	Microstructure of Warm Mix Asphalt Binder Exposed to UV Light and Heat 2016 ,		2
5	A statistical approach for predicting skid resistance of asphalt pavements. <i>International Journal of Pavement Research and Technology</i> , 2021 , 14, 647-654	2	2
4	A two-constituent nonlinear viscoelastic model for asphalt mixtures. <i>Road Materials and Pavement Design</i> , 2021 , 22, 910-924	2.6	2
3	Thermal, microscopic, and rheological characterization of rejuvenated asphalt binders. <i>Materials and Structures/Materiaux Et Constructions</i> , 2022 , 55, 1	3-4	1
2	Analysis of reclaimed asphalt blended binders using linear and nonlinear viscoelasticity frameworks. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020 , 53, 1	3-4	0
1	Effect of bio-rejuvenator on recycled porous asphalt mixes. <i>Road Materials and Pavement Design</i> , 1-27	2.6	0