

# Henglong Zhang

## List of Publications by Year in descending order

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90  
papers

3,654  
citations

117625

34  
h-index

144013

57  
g-index

90  
all docs

90  
docs citations

90  
times ranked

1199  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of aging behaviors of asphalt binders through different rheological indices. <i>Fuel</i> , 2018, 221, 78-88.	6.4	299
2	Effect of organo-montmorillonite on aging properties of asphalt. <i>Construction and Building Materials</i> , 2009, 23, 2636-2640.	7.2	213
3	Physical, rheological and chemical characterization of aging behaviors of thermochromic asphalt binder. <i>Fuel</i> , 2018, 211, 850-858.	6.4	157
4	Investigation of aging performance of SBS modified asphalt with various aging methods. <i>Construction and Building Materials</i> , 2017, 145, 445-451.	7.2	144
5	Effect of montmorillonite organic modification on ultraviolet aging properties of SBS modified bitumen. <i>Construction and Building Materials</i> , 2012, 27, 553-559.	7.2	118
6	Effect of ultraviolet aging on rheology, chemistry and morphology of ultraviolet absorber modified bitumen. <i>Materials and Structures/Materiaux Et Constructions</i> , 2013, 46, 1123-1132.	3.1	118
7	Effect of aging on morphology of organo-montmorillonite modified bitumen by atomic force microscopy. <i>Journal of Microscopy</i> , 2011, 242, 37-45.	1.8	113
8	Investigation of microstructures and ultraviolet aging properties of organo-montmorillonite/SBS modified bitumen. <i>Materials Chemistry and Physics</i> , 2011, 129, 769-776.	4.0	111
9	Influence of surface modification on physical and ultraviolet aging resistance of bitumen containing inorganic nanoparticles. <i>Construction and Building Materials</i> , 2015, 98, 735-740.	7.2	102
10	Improvement of thermal and optical responses of short-term aged thermochromic asphalt binder by warm-mix asphalt technology. <i>Journal of Cleaner Production</i> , 2021, 279, 123675.	9.3	72
11	Effect of aging on the morphology of bitumen by atomic force microscopy. <i>Journal of Microscopy</i> , 2012, 246, 11-19.	1.8	71
12	Rheological examination of aging in bitumen with inorganic nanoparticles and organic expanded vermiculite. <i>Construction and Building Materials</i> , 2015, 101, 884-891.	7.2	71
13	Mini-Review on the Application of Nanomaterials in Improving Anti-Aging Properties of Asphalt. <i>Energy &amp; Fuels</i> , 2021, 35, 11017-11036.	5.1	69
14	Effect of expanded vermiculite on aging properties of bitumen. <i>Construction and Building Materials</i> , 2012, 26, 244-248.	7.2	60
15	New innovations in pavement materials and engineering: A review on pavement engineering research 2021. <i>Journal of Traffic and Transportation Engineering (English Edition)</i> , 2021, 8, 815-999.	4.2	59
16	Aging rheological characteristics of SBR modified asphalt with multi-dimensional nanomaterials. <i>Construction and Building Materials</i> , 2017, 151, 388-393.	7.2	58
17	Effect of mineral filler on properties of warm asphalt mastic containing Sasobit. <i>Construction and Building Materials</i> , 2013, 48, 622-627.	7.2	57
18	Effect of organic layered silicates on flame retardancy and aging properties of bitumen. <i>Construction and Building Materials</i> , 2013, 40, 1151-1155.	7.2	56

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19	Effect of nano-zinc oxide on ultraviolet aging properties of bitumen with 60/80 penetration grade. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 3249-3257.	3.1	56
20	Influence of SBS Modifier on Aging Behaviors of SBS-Modified Asphalt. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	2.9	54
21	Investigation of ultraviolet radiation aging gradient in asphalt binder. <i>Construction and Building Materials</i> , 2020, 246, 118501.	7.2	54
22	Rheological and anti-aging performance of SBS modified asphalt binders with different multi-dimensional nanomaterials. <i>Construction and Building Materials</i> , 2018, 188, 409-416.	7.2	52
23	Evaluation of aging behaviors of asphalt with different thermochromic powders. <i>Construction and Building Materials</i> , 2017, 155, 1198-1205.	7.2	50
24	Effect of organic layered silicate on microstructures and aging properties of styrene-butadiene-styrene copolymer modified bitumen. <i>Construction and Building Materials</i> , 2014, 68, 31-38.	7.2	48
25	Influence of Base Asphalt and SBS Modifier on the Weathering Aging Behaviors of SBS Modified Asphalt. <i>Journal of Materials in Civil Engineering</i> , 2018, 30, .	2.9	48
26	Microstructures and thermal aging mechanism of expanded vermiculite modified bitumen. <i>Construction and Building Materials</i> , 2013, 47, 919-926.	7.2	47
27	Effect of polyphosphoric acid on physical properties, chemical composition and morphology of bitumen. <i>Construction and Building Materials</i> , 2013, 47, 92-98.	7.2	47
28	Long-term performance and microstructure of asphalt emulsion cold recycled mixture with different gradations. <i>Journal of Cleaner Production</i> , 2019, 215, 944-951.	9.3	47
29	Synergetic effect of multi-dimensional nanomaterials for anti-aging properties of SBS modified bitumen. <i>Construction and Building Materials</i> , 2017, 144, 423-431.	7.2	45
30	Performance evaluation of polyurethane/epoxy resin modified asphalt as adhesive layer material for steel-UHPC composite bridge deck pavements. <i>Construction and Building Materials</i> , 2021, 291, 123364.	7.2	45
31	Rheological performance investigation and sustainability evaluation of asphalt binder with thermochromic powders under solar radiation. <i>Solar Energy Materials and Solar Cells</i> , 2019, 191, 175-182.	6.2	40
32	Effect of multi-dimensional nanomaterials on the aging behavior of asphalt by atomic force microscope. <i>Construction and Building Materials</i> , 2020, 260, 120389.	7.2	40
33	Improvement of short-term aging resistance of styrene-butadiene rubber modified asphalt by Sasobit and epoxidized soybean oil. <i>Construction and Building Materials</i> , 2021, 271, 121870.	7.2	38
34	Effect of expanded vermiculite on microstructures and aging properties of styrene-butadiene-styrene copolymer modified bitumen. <i>Construction and Building Materials</i> , 2013, 40, 224-230.	7.2	36
35	Physical, Rheological, and Aging Properties of Bitumen Containing Organic Expanded Vermiculite and Nano-Zinc Oxide. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	2.9	34
36	Effect of nano-zinc oxide and organic expanded vermiculite on rheological properties of different bitumens before and after aging. <i>Construction and Building Materials</i> , 2017, 146, 30-37.	7.2	34

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37	Effect of gradations on the final and long-term performance of asphalt emulsion cold recycled mixture. <i>Journal of Cleaner Production</i> , 2019, 217, 95-104.	9.3	34
38	Rheological and aging behaviors of base and SBS modified asphalt with thermochromic microcapsule. <i>Construction and Building Materials</i> , 2019, 200, 1-9.	7.2	34
39	Influence of different anti-stripping agents on the rheological properties of asphalt binder at high temperature. <i>Construction and Building Materials</i> , 2018, 164, 317-325.	7.2	33
40	Investigation of anti-aging mechanism of multi-dimensional nanomaterials modified asphalt by FTIR, NMR and GPC. <i>Construction and Building Materials</i> , 2021, 305, 124809.	7.2	33
41	Effect of Layered Double Hydroxides (LDHs) on Aging Properties of Bitumen. <i>Journal of Testing and Evaluation</i> , 2012, 40, 734-739.	0.7	32
42	Effect of montmorillonite organic modification on microstructures and ultraviolet aging properties of bitumen. <i>Journal of Microscopy</i> , 2011, 244, 85-92.	1.8	31
43	Effect of Different Inorganic Nanoparticles on Physical and Ultraviolet Aging Properties of Bitumen. <i>Journal of Materials in Civil Engineering</i> , 2015, 27, .	2.9	30
44	Investigation of the aging behaviors of multi-dimensional nanomaterials modified different bitumens by Fourier transform infrared spectroscopy. <i>Construction and Building Materials</i> , 2018, 167, 536-542.	7.2	29
45	Effect of catalytic-reactive rejuvenator on structure and properties of aged SBS modified asphalt binders. <i>Construction and Building Materials</i> , 2020, 246, 118531.	7.2	29
46	Effect of multi-scale nanocomposites on performance of asphalt binder and mixture. <i>Construction and Building Materials</i> , 2020, 243, 118307.	7.2	29
47	Short-term aging resistance investigations of polymers and polyphosphoric acid modified asphalt binders under RTFOT aging process. <i>Construction and Building Materials</i> , 2018, 191, 787-794.	7.2	28
48	A Novel Rejuvenating Method for Structural and Performance Recovery of Aged SBS-Modified Bitumen. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 1565-1577.	6.7	28
49	Effect of liquid ASAs on the rheological properties of crumb rubber modified asphalt. <i>Construction and Building Materials</i> , 2019, 194, 238-246.	7.2	26
50	Effect of crumb rubber percentages and bitumen sources on high-temperature rheological properties of less smell crumb rubber modified bitumen. <i>Construction and Building Materials</i> , 2021, 277, 122248.	7.2	24
51	Influence of multi-dimensional nanomaterials composite form on thermal and ultraviolet oxidation aging resistances of SBS modified asphalt. <i>Construction and Building Materials</i> , 2021, 273, 122054.	7.2	23
52	Effect of different rejuvenators on the properties of aged SBS modified asphalt. <i>Petroleum Science and Technology</i> , 2017, 35, 72-78.	1.5	22
53	Determination of time-temperature superposition relationship of SBS modified asphalt based on special rheological phenomenon caused by SBS-formed structure in asphalt matrix. <i>Construction and Building Materials</i> , 2020, 260, 119835.	7.2	22
54	A novel method for determining the time-temperature superposition relationship of SBS modified bitumen: Effects of bitumen source, modifier type and aging. <i>Construction and Building Materials</i> , 2021, 280, 122549.	7.2	22

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55	Effect of Rectorite and Its Organic Modification on Properties of Bitumen. Journal of Materials in Civil Engineering, 2015, 27, .	2.9	21
56	Properties of Bitumen Containing Various Amounts of Organic Montmorillonite. Journal of Materials in Civil Engineering, 2015, 27, .	2.9	21
57	Effect of organo-montmorillonite on the morphology and aging properties of various bitumens. Journal Wuhan University of Technology, Materials Science Edition, 2010, 25, 650-655.	1.0	20
58	Effect of Nanozinc Oxide and Organic Expanded Vermiculite Compound on Antiaging Properties of SBR Modified Bitumen. Journal of Materials in Civil Engineering, 2017, 29, .	2.9	19
59	Low Temperature Performance Characteristics of Reclaimed Asphalt Pavement (RAP) Mortars with Virgin and Aged Soft Binders. Applied Sciences (Switzerland), 2017, 7, 304.	2.5	19
60	Influence of layered silicate types on physical, rheological and aging properties of SBS modified asphalt with multi-dimensional nanomaterials. Construction and Building Materials, 2019, 228, 116735.	7.2	19
61	The behaviour of rejuvenated SBS-modified asphalt incorporating catalytic-reactive compounded rejuvenator. Road Materials and Pavement Design, 2022, 23, 433-444.	4.0	19
62	Long-term photo oxidation aging investigation of temperature-regulating bitumen based on thermochromic principle. Fuel, 2021, 286, 119403.	6.4	19
63	Research on the anti-aging mechanism of SBS-modified asphalt compounded with multidimensional nanomaterials based on atomic force microscopy. Construction and Building Materials, 2022, 317, 125808.	7.2	19
64	Influence of zinc oxide/expanded vermiculite composite on the rheological and anti-aging properties of bitumen. Fuel, 2022, 315, 123165.	6.4	19
65	Rheological characteristics of alternative modified binders. Construction and Building Materials, 2017, 144, 442-450.	7.2	16
66	Physical and rheological evaluation of aging behaviors of SBS modified asphalt with thermochromic powders. Construction and Building Materials, 2018, 193, 135-141.	7.2	16
67	Effects of core-shell acrylate particles on impact properties of chlorinated polyethylene/polyvinyl chloride blends. Polymer Engineering and Science, 2010, 50, 295-301.	3.1	15
68	Effect of liquid anti-stripping agents on moisture sensitivity of crumb rubber modified asphalt binders and mixtures. Construction and Building Materials, 2019, 225, 112-119.	7.2	14
69	Synthesis, characterization and utilization of zinc oxide/expanded vermiculite composite for bitumen modification. Fuel, 2021, 306, 121731.	6.4	14
70	A novel warm-mix additive for SBR modified asphalt binder: Effects of Sasobit/epoxidized soybean oil compound on binder rheological and long-term aging performance. Journal of Cleaner Production, 2021, 326, 129405.	9.3	13
71	Evaluation on long-term performance of emulsified asphalt cold recycled mixture incorporating fly ash by mechanistic and microscopic characterization. Construction and Building Materials, 2022, 319, 126120.	7.2	10
72	Chemical characteristics analyze of SBS-modified bitumen containing composite nanomaterials after aging by FTIR and GPC. Construction and Building Materials, 2022, 324, 126522.	7.2	10

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73	An improved method for separating styrene-butadiene-styrene triblock copolymer (SBS) and bitumen matrix from SBS modified bitumen. <i>Fuel</i> , 2021, 286, 119314.	6.4	9
74	Molecular dynamics insight into the adsorption and distribution of bitumen subfractions on Na-montmorillonite surface. <i>Fuel</i> , 2022, 310, 122380.	6.4	8
75	Investigation on microstructure and aging resistance of bitumen modified by zinc oxide/expanded vermiculite composite synthesized with different methods. <i>Fuel</i> , 2022, 324, 124590.	6.4	8
76	Influence of multi-dimensional nanomaterials on the aging behavior of bitumen and SBS modified bitumen. <i>Petroleum Science and Technology</i> , 2017, 35, 1931-1937.	1.5	7
77	Effect of thermochromic materials on physical and aging properties of SBS modified asphalt. <i>Petroleum Science and Technology</i> , 2018, 36, 2119-2124.	1.5	7
78	Effect of organophilic montmorillonite on thermal-oxidative aging behavior of SBS modified bitumen crack filling material. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2009, 24, 673-676.	1.0	6
79	Physical and aging properties of different bitumens with multi-scale nanomaterials. <i>Petroleum Science and Technology</i> , 2017, 35, 1389-1395.	1.5	6
80	Effect of Thermochromic Materials on the Properties of SBS-Modified Asphalt Mixture. <i>Journal of Materials in Civil Engineering</i> , 2020, 32, .	2.9	6
81	Comparative investigation of mechanical and cooling performance between thermochromic road materials prepared by wet/dry process: For low-carbon production and sustainable service. <i>Journal of Cleaner Production</i> , 2022, 360, 132158.	9.3	5
82	Synthesis and characteristics of pectiniform polyurethane- $\epsilon$ -modified polycarboxylate at room temperature. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45873.	2.6	3
83	An innovative and smart road construction material: thermochromic asphalt binder. , 2020, , 691-716.		3
84	Application of functionalized nanomaterials in asphalt road construction materials. , 2020, , 865-907.		3
85	Effect of Aging on the Rheological Behaviors of SBS-Modified Asphalt with Thermochromic Materials. <i>Journal of Testing and Evaluation</i> , 2021, 49, 4032-4039.	0.7	3
86	Aging Resistances Evaluation of Multi-dimensional Nanomaterials Modified Asphalt by Characterizing Binders Recovered from Aged Asphalt Mixtures. <i>Journal of Testing and Evaluation</i> , 2022, 50, 105-116.	0.7	2
87	Performance of thermochromic asphalt. , 2021, , 33-59.		1
88	Synergetic Effect of Multi-Dimensional Nanomaterials on Aging Resistance of Asphalt. <i>Journal of Testing and Evaluation</i> , 2021, 49, 2028-2034.	0.7	1
89	Comparative investigation of different blends ageing behaviours for short-term thermal oxidation ageing mechanism of SBS-modified bitumen. <i>Road Materials and Pavement Design</i> , 0, , 1-15.	4.0	1
90	Comparative Evaluation of Aging Effect Difference between Aging Patterns for Asphalt Binder and Mixture. <i>Journal of Testing and Evaluation</i> , 2022, 50, 20210168.	0.7	0