

Hilde Soenen

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

1,435
citations

331670

21
h-index

345221

36
g-index

61
all docs

61
docs citations

61
times ranked

956
citing authors

#	ARTICLE	IF	CITATIONS
1	Relation between bitumen chemistry and performance. <i>Fuel</i> , 2015, 140, 34-43.	6.4	165
2	Laboratory investigation of bitumen based on round robin DSC and AFM tests. <i>Materials and Structures/Materiaux Et Constructions</i> , 2014, 47, 1205-1220.	3.1	143
3	Creep-recovery behavior of bituminous binders and its relation to asphalt mixture rutting. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 4039-4053.	3.1	92
4	Oxidation of bitumen: molecular characterization and influence on rheological properties. <i>Rheologica Acta</i> , 2016, 55, 315-326.	2.4	67
5	Low-temperature rheological and morphological characterization of SBS modified bitumen. <i>Construction and Building Materials</i> , 2018, 179, 348-359.	7.2	58
6	Ordering and structure formation in triblock copolymer solutions. Part I. Rheological observations. <i>Polymer</i> , 1997, 38, 5653-5660.	3.8	54
7	The multiple stress creep-recovery test: a detailed analysis of repeatability and reproducibility. <i>Road Materials and Pavement Design</i> , 2013, 14, 2-11.	4.0	53
8	Influence of thermal history on rheological properties of various bitumen. <i>Rheologica Acta</i> , 2006, 45, 729-739.	2.4	47
9	Investigation of bitumen low temperature properties using a dynamic shear rheometer with 4 mm parallel plates. <i>International Journal of Pavement Research and Technology</i> , 2017, 10, 15-22.	2.6	46
10	Investigation of the bulk and surface microstructure of bitumen by atomic force microscopy. <i>Construction and Building Materials</i> , 2018, 177, 158-169.	7.2	42
11	The Morphology of Bitumen-SBS Blends by UV Microscopy. <i>Road Materials and Pavement Design</i> , 2008, 9, 97-110.	4.0	37
12	Exploring the oxidative mechanisms of bitumen after laboratory short- and long-term ageing. <i>Construction and Building Materials</i> , 2021, 289, 123182.	7.2	37
13	Structural and chemical analysis of bitumen using time-of-flight secondary ion mass spectrometry (TOF-SIMS). <i>Fuel</i> , 2017, 199, 206-218.	6.4	36
14	Identification of ageing state clusters of reclaimed asphalt binders using principal component analysis (PCA) and hierarchical cluster analysis (HCA) based on chemo-rheological parameters. <i>Construction and Building Materials</i> , 2020, 244, 118276.	7.2	33
15	The effect of aromatic interactions on the elasticity of bituminous binders. <i>Rheologica Acta</i> , 2014, 53, 741-754.	2.4	32
16	Experimental investigation of the oxidative ageing mechanisms in bitumen. <i>Construction and Building Materials</i> , 2020, 260, 119702.	7.2	32
17	Fatigue Behaviour of Bituminous Materials: From Binders to Mixes. <i>Road Materials and Pavement Design</i> , 2003, 4, 7-27.	4.0	31
18	Ordering and structure formation in triblock copolymer solutions. Part II. Small angle X-ray scattering and calorimetric observations. <i>Polymer</i> , 1997, 38, 5661-5665.	3.8	25

#	ARTICLE	IF	CITATIONS
19	New evidence on the origin of "bee structures"™ on bitumen and oils, by atomic force microscopy (AFM) and confocal laser scanning microscopy (CLSM). <i>Fuel</i> , 2021, 303, 121265.	6.4	25
20	Microstructures of bitumen observed by environmental scanning electron microscopy (ESEM) and chemical analysis using time-of-flight secondary ion mass spectrometry (TOF-SIMS). <i>Fuel</i> , 2018, 229, 198-208.	6.4	24
21	Analysis of asphaltenes and maltenes before and after long-term aging of bitumen. <i>Fuel</i> , 2021, 304, 121426.	6.4	21
22	The Morphology of Bitumen-SBS Blends by UV Microscopy. An Evaluation of Preparation Methods. <i>Road Materials and Pavement Design</i> , 2008, 9, 97-110.	4.0	21
23	The Influence of Thermal History on Binder Rutting Indicators. <i>Road Materials and Pavement Design</i> , 2005, 6, 217-238.	4.0	17
24	Correlation between Bitumen Polarity and Rheology. <i>Road Materials and Pavement Design</i> , 2005, 6, 385-405.	4.0	17
25	Coupling AFM and CLSM to investigate the effect of ageing on the bee structures of bitumen. <i>Micron</i> , 2021, 151, 103149.	2.2	17
26	Comparison of microscopic techniques to study the diversity of the bitumen microstructure. <i>Micron</i> , 2022, 159, 103294.	2.2	17
27	Field experience of cold mix asphalt during 15 years. <i>Road Materials and Pavement Design</i> , 2016, 17, 223-242.	4.0	15
28	Rheological characterization of wax modified bituminous binders: Effect of specimen preparation and thermal history. <i>Construction and Building Materials</i> , 2015, 95, 269-278.	7.2	14
29	Bitumen/Aggregate Affinity"Rilem Round Robin Test on Rolling Bottle Test. <i>RILEM Bookseries</i> , 2016, , 153-164.	0.4	14
30	An empirical constitutive model for complex glass-forming liquids using bitumen as a model material. <i>Rheologica Acta</i> , 2018, 57, 57-70.	2.4	14
31	Fundamental Approaches to Predict Moisture Damage in Asphalt Mixtures: State-of-the-Art Review. <i>Infrastructures</i> , 2020, 5, 20.	2.8	14
32	Asphalt Production at Reduced Temperatures using Zeolites and the Impact on Asphalt Performance. <i>Road Materials and Pavement Design</i> , 2010, 11, 65-81.	4.0	13
33	Material Characteristics of Long Lasting Asphalt Pavements. <i>Road Materials and Pavement Design</i> , 2011, 12, 567-585.	4.0	13
34	Analysis of 4-mm DSR tests: calibration, sample preparation, and evaluation of repeatability and reproducibility. <i>Road Materials and Pavement Design</i> , 2021, 22, 557-571.	4.0	13
35	Gelation and structure formation in solutions of poly(vinyl chloride). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 241-247.	2.1	12
36	Binder Testing. <i>RILEM State-of-the-Art Reports</i> , 2013, , 15-83.	0.7	11

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37	Crystallinity of Bitumen via WAXD and DSC and Its Effect on the Surface Microstructure. Crystals, 2022, 12, 755.	2.2	11
38	Oxidative aging of bitumen: a structural and chemical investigation. Road Materials and Pavement Design, 2022, 23, 1091-1106.	4.0	10
39	Systematic broadening of the viscoelastic and calorimetric glass transitions in complex glass-forming liquids. Journal of Non-Crystalline Solids, 2018, 483, 10-17.	3.1	9
40	Interlaboratory study on low temperature asphalt binder testing using Dynamic Shear Rheometer with 4â€mm diameter parallel plate geometry. Road Materials and Pavement Design, 2022, 23, 890-906.	4.0	9
41	Parametric analysis and field validations of oxidative ageing in asphalt pavements using multiphysics modelling approaches. International Journal of Pavement Engineering, 2023, 24, .	4.4	8
42	Rheological and chemical properties of field aged binders and their variation within the wearing course. Road Materials and Pavement Design, 2022, 23, 36-54.	4.0	7
43	Peat Fibers and Finely Ground Peat Powder for Application in Asphalt. Infrastructures, 2019, 4, 3.	2.8	6
44	Structural and chemical imaging analysis of bitumen. Road Materials and Pavement Design, 2021, 22, 852-870.	4.0	6
45	Differential Scanning Calorimetry Applied to Bitumen: Results of the RILEM NBM TG1 Round Robin Test. RILEM Bookseries, 2013, , 311-323.	0.4	6
46	Asphalt Production at Reduced Temperatures using Zeolites and the Impact on Asphalt Performanc. Road Materials and Pavement Design, 2010, 11, 65-81.	4.0	5
47	The Influence of Thermal History on Binder Rutting Indicators. Road Materials and Pavement Design, 2005, 6, 217-238.	4.0	5
48	Experimental and Statistical Analysis of Bitumenâ€™s Field Ageing in Asphalt Pavements. Transportation Research Record, 2022, 2676, 495-511.	1.9	5
49	Phase behavior and gelation of solutions of poly(vinylchloride). Polymer Gels and Networks, 1994, 2, 159-172.	0.6	4
50	The Interaction of Polyphosphoric Acid with Bituminous Binders. RILEM Bookseries, 2016, , 103-114.	0.4	3
51	Fatigue Behaviour of Bituminous Materials: From Binders to Mixes. Road Materials and Pavement Design, 2003, 4, 7-27.	4.0	3
52	Correlation between Bitumen Polarity and Rheology. Road Materials and Pavement Design, 2005, 6, 385-405.	4.0	3
53	Recommendation of RILEM TC 237-SIB on affinity between aggregates and bituminous binders. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	2
54	Evaluation of the Properties of Bituminous Binders Recovered from Various Sites in Europe. RILEM Bookseries, 2022, , 841-847.	0.4	2

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55	Peat as an Example of a Natural Fiber in Bitumen. RILEM Bookseries, 2019, , 300-305.	0.4	2
56	Bituminous Binder. RILEM State-of-the-Art Reports, 2018, , 15-74.	0.7	1
57	Visualization and Chemical Analysis of Bitumen Microstructures. RILEM Bookseries, 2019, , 168-173.	0.4	1
58	The Influence of Wax Model Compounds on the Surface Topography of Bitumen. RILEM Bookseries, 2022, , 1831-1837.	0.4	0
59	Experimental Validation of the Dual-Oxidation Routes in Bituminous Binders. RILEM Bookseries, 2022, , 903-909.	0.4	0