Francisco Javier Navarro

List of Publications by Year
in descending order

57 papers	2,573 citations	201674 27 h-index	189892 50 g-index
57 all docs	57 docs citations	57 times ranked	1256 citing authors

#	Article	IF	Citations
1	Ageing Effects on a Softened Bitumen by the Addition of DSA (Dodecenyl Succinic Anhydride). Polymers, 2022, 14, 2437.	4.5	0
2	Emulsion Stabilization by Cationic Lignin Surfactants Derived from Bioethanol Production and Kraft Pulping Processes. Polymers, 2022, 14, 2879.	4.5	1
3	Oil-in-Oil emulsions of stearic acid dispersed in silicone oil with enhanced energy storage capability for heat transfer fluids. Solar Energy Materials and Solar Cells, 2022, 245, 111893.	6.2	5
4	Formulation and processing of novel non-aqueous polyethylene glycol-in-silicone oil (o/o) phase change emulsions. Solar Energy Materials and Solar Cells, 2021, 221, 110898.	6.2	17
5	Role of crystallinity on the thermal and viscous behaviour of polyethylene glycol-in-silicone oil (o/o) phase change emulsions. Journal of Industrial and Engineering Chemistry, 2021, 103, 348-357.	5.8	4
6	Synergistic ethylcellulose/polyphosphoric acid modification of bitumen for paving applications. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	3.1	8
7	Short- and Long-Term Epoxy Modification of Bitumen: Modification Kinetics, Rheological Properties, and Microstructure. Polymers, 2020, 12, 508.	4.5	13
8	Hybrid Rubberised Bitumen from Reactive and Non-Reactive Ethylene Copolymers. Polymers, 2019, 11, 1974.	4.5	8
9	Effect of shear processing on the linear viscoelastic behaviour and microstructure of bitumen/montmorillonite/MDI ternary composites. Journal of Industrial and Engineering Chemistry, 2017, 48, 212-223.	5.8	12
10	Dodecylbenzenesulfonic Acid as a Bitumen Modifier: A Novel Approach To Enhance Rheological Properties of Bitumen. Energy & Fuels, 2017, 31, 5003-5010.	5.1	19
11	Thermomechanical and microstructural evaluation of hybrid rubberised bitumen containing a thermoplastic polymer. Construction and Building Materials, 2017, 157, 873-884.	7.2	20
12	Physico-chemistry control of the linear viscoelastic behaviour of bitumen/montmorillonite/MDI ternary composites: Effect of the modification sequence. Fuel Processing Technology, 2016, 143, 195-203.	7.2	28
13	Thermo-mechanical behaviour and structure of novel bitumen/nanoclay/MDI composites. Composites Part B: Engineering, 2015, 76, 192-200.	12.0	18
14	Effect of transesterification degree and post-treatment on the in-service performance of NCO-functionalized vegetable oil bituminous products. Chemical Engineering Science, 2014, 111, 126-134.	3.8	10
15	Processing of bitumens modified by a bio-oil-derived polyurethane. Fuel, 2014, 118, 83-90.	6.4	63
16	Bitumen modifiers for reduced temperature asphalts: A comparative analysis between three polymeric and non-polymeric additives. Construction and Building Materials, 2014, 51, 82-88.	7.2	23
17	Structureâ€”property relationships in the development of bituminous foams from MDI based prepolymers. Rheologica Acta, 2014, 53, 123-131.	2.4	10
18	Valorization of phosphogypsum waste as asphaltic bitumen modifier. Journal of Hazardous Materials, 2014, 279, 11-16.	12.4	95

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19	Thermo-mechanical properties and microstructural considerations ofÂMDI isocyanate-based bituminous foams. Materials Chemistry and Physics, 2014, 146, 261-268.	4.0	13
20	End-performance evaluation of thiourea-modified bituminous binders through viscous flow and linear viscoelasticy testing. Rheologica Acta, 2013, 52, 145-154.	2.4	10
21	Isocyanate-functionalized castor oil as a novel bitumen modifier. Chemical Engineering Science, 2013, 97, 320-327.	3.8	41
22	Effects of MDIâ€“PPG molecular weight on the thermorheological behaviour of MDIâ€“isocyanate based bituminous foams. Journal of Industrial and Engineering Chemistry, 2013, 19, 704-711.	5.8	16
23	Formulation of new synthetic binders: Thermomechanical properties of resin/recycled polymer blends. Polymer Engineering and Science, 2012, 52, 242-249.	3.1	2
24	Enhancing the viscoelastic properties of bituminous binders via thiourea-modification. Fuel, 2012, 97, 862-868.	6.4	9
25	Bituminous polyurethane foams for building applications: Influence of bitumen hardness. Construction and Building Materials, 2012, 30, 706-713.	7.2	60
26	Influence of Processing Temperature on the Modification Route and Rheological Properties of Thiourea Dioxide-Modified Bitumen. Energy & Fuels, 2011, 25, 4055-4062.	5.1	10
27	Novel stable MDI isocyanate-based bituminous foams. Fuel, 2011, 90, 681-688.	6.4	32
28	Bitumen chemical modification by thiourea dioxide. Fuel, 2011, 90, 2294-2300.	6.4	30
29	Novel recycled polyethylene/ground tire rubber/bitumen blends for use in roofing applications: Thermo-mechanical properties. Polymer Testing, 2010, 29, 588-595.	4.8	95
30	Thermomechanical properties of bitumen modified with crumb tire rubber and polymeric additives. Fuel Processing Technology, 2010, 91, 1033-1039.	7.2	57
31	Bitumen Chemical Foaming for Asphalt Paving Applications. Industrial & Engineering Chemistry Research, 2010, 49, 8538-8543.	3.7	26
32	Effect of processing temperature on the bitumen/MDI-PEG reactivity. Fuel Processing Technology, 2009, 90, 525-530.	7.2	35
33	Bitumen modification with reactive and non-reactive (virgin and recycled) polymers: A comparative analysis. Journal of Industrial and Engineering Chemistry, 2009, 15, 458-464.	5.8	91
34	Evaluation of thermal and mechanical properties of recycled polyethylene modified bitumen. Polymer Testing, 2008, 27, 1005-1012.	4.8	110
35	Use of a MDI-functionalized reactive polymer for the manufacture of modified bitumen with enhanced properties for roofing applications. European Polymer Journal, 2008, 44, 1451-1461.	5.4	53
36	Role of Water in the Development of New Isocyanate-Based Bituminous Products. Industrial & Engineering Chemistry Research, 2008, 47, 6933-6940.	3.7	28

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37	The Effect of Water on the Modification of Bitumen with MDI-PEG Prepolymer. AIP Conference Proceedings, 2008, , .	0.4	0
38	New routes for roads: using recycled greenhouse films to modify bitumens. International Journal of Environmental Technology and Management, 2007, 7, 218.	0.2	2
39	Influence of processing conditions on the rheological behavior of crumb tire rubber-modified bitumen. Journal of Applied Polymer Science, 2007, 104, 1683-1691.	2.6	61
40	Pressureâ€“temperatureâ€“viscosity relationship for heavy petroleum fractions. Fuel, 2007, 86, 227-233.	6.4	35
41	Bitumen modification with a low-molecular-weight reactive isocyanate-terminated polymer. Fuel, 2007, 86, 2291-2299.	6.4	75
42	Formulation of new synthetic binders: Thermo-mechanical properties of recycled polymer/oil blends. Polymer Testing, 2007, 26, 323-332.	4.8	24
43	Processing, rheology, and storage stability of recycled EVA/LDPE modified bitumen. Polymer Engineering and Science, 2007, 47, 181-191.	3.1	53
44	Rheology and microstructure of MDIâ€“PEG reactive prepolymer-modified bitumen. Mechanics of Time-Dependent Materials, 2007, 10, 347-359.	4.4	25
45	Effect of waste polymer addition on the rheology of modified bitumen. Fuel, 2006, 85, 936-943.	6.4	171
46	Process rheokinetics and microstructure of recycled EVA/LDPE-modified bitumen. Rheologica Acta, 2006, 45, 513-524.	2.4	12
47	Effect of composition and processing on the linear viscoelasticity of synthetic binders. European Polymer Journal, 2005, 41, 1429-1438.	5.4	29
48	Viscous flow properties and phase behaviour of oilâ€“resin blends. Fluid Phase Equilibria, 2005, 237, 117-122.	2.5	7
49	Influence of Crumb Rubber Concentration on the Rheological Behavior of a Crumb Rubber Modified Bitumen. Energy & Fuels, 2005, 19, 1984-1990.	5.1	105
50	The rheology of recycled EVA/LDPE modified bitumen. Rheologica Acta, 2004, 43, 482-490.	2.4	46
51	Thermo-rheological behaviour and storage stability of ground tire rubber-modified bitumens. Fuel, 2004, 83, 2041-2049.	6.4	278
52	Viscous properties and microstructure of recycled eva modified bitumen. Fuel, 2004, 83, 31-38.	6.4	186
53	Rheology and stability of bitumen/EVA blends. European Polymer Journal, 2004, 40, 2365-2372.	5.4	145
54	Linear Viscoelasticity of Recycled EVA-Modified Bitumens. Energy & Fuels, 2004, 18, 357-364.	5.1	81

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55	Rheological characteristics of ground tire rubber-modified bitumens. Chemical Engineering Journal, 2002, 89, 53-61.	12.7	114
56	Rheology and microstructure of asphalt binders. Rheologica Acta, 2001, 40, 135-141.	2.4	32
57	Effect of processing variables on the linear viscoelastic properties of SBS-oil blends. Polymer Engineering and Science, 2001, 41, 2216-2225.	3.1	20