

# Francisco Javier Navarro

## List of Publications by Year in descending order

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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	Thermo-rheological behaviour and storage stability of ground tire rubber-modified bitumens. Fuel, 2004, 83, 2041-2049.	6.4	278
2	Viscous properties and microstructure of recycled eva modified bitumen. Fuel, 2004, 83, 31-38.	6.4	186
3	Effect of waste polymer addition on the rheology of modified bitumen. Fuel, 2006, 85, 936-943.	6.4	171
4	Rheology and stability of bitumen/EVA blends. European Polymer Journal, 2004, 40, 2365-2372.	5.4	145
5	Rheological characteristics of ground tire rubber-modified bitumens. Chemical Engineering Journal, 2002, 89, 53-61.	12.7	114
6	Evaluation of thermal and mechanical properties of recycled polyethylene modified bitumen. Polymer Testing, 2008, 27, 1005-1012.	4.8	110
7	Influence of Crumb Rubber Concentration on the Rheological Behavior of a Crumb Rubber Modified Bitumen. Energy & Fuels, 2005, 19, 1984-1990.	5.1	105
8	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
9	Valorization of phosphogypsum waste as asphaltic bitumen modifier. Journal of Hazardous Materials, 2014, 279, 11-16.	12.4	95
10	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
11	Linear Viscoelasticity of Recycled EVA-Modified Bitumens. Energy & Fuels, 2004, 18, 357-364.	5.1	81
12	Bitumen modification with a low-molecular-weight reactive isocyanate-terminated polymer. Fuel, 2007, 86, 2291-2299.	6.4	75
13	Processing of bitumens modified by a bio-oil-derived polyurethane. Fuel, 2014, 118, 83-90.	6.4	63
14	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
15	Bituminous polyurethane foams for building applications: Influence of bitumen hardness. Construction and Building Materials, 2012, 30, 706-713.	7.2	60
16	Thermomechanical properties of bitumen modified with crumb tire rubber and polymeric additives. Fuel Processing Technology, 2010, 91, 1033-1039.	7.2	57
17	Processing, rheology, and storage stability of recycled EVA/LDPE modified bitumen. Polymer Engineering and Science, 2007, 47, 181-191.	3.1	53
18	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

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19	The rheology of recycled EVA/LDPE modified bitumen. <i>Rheologica Acta</i> , 2004, 43, 482-490.	2.4	46
20	Isocyanate-functionalized castor oil as a novel bitumen modifier. <i>Chemical Engineering Science</i> , 2013, 97, 320-327.	3.8	41
21	Pressure-temperature-viscosity relationship for heavy petroleum fractions. <i>Fuel</i> , 2007, 86, 227-233.	6.4	35
22	Effect of processing temperature on the bitumen/MDI-PEG reactivity. <i>Fuel Processing Technology</i> , 2009, 90, 525-530.	7.2	35
23	Rheology and microstructure of asphalt binders. <i>Rheologica Acta</i> , 2001, 40, 135-141.	2.4	32
24	Novel stable MDI isocyanate-based bituminous foams. <i>Fuel</i> , 2011, 90, 681-688.	6.4	32
25	Bitumen chemical modification by thiourea dioxide. <i>Fuel</i> , 2011, 90, 2294-2300.	6.4	30
26	Effect of composition and processing on the linear viscoelasticity of synthetic binders. <i>European Polymer Journal</i> , 2005, 41, 1429-1438.	5.4	29
27	Role of Water in the Development of New Isocyanate-Based Bituminous Products. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 6933-6940.	3.7	28
28	Physico-chemistry control of the linear viscoelastic behaviour of bitumen/montmorillonite/MDI ternary composites: Effect of the modification sequence. <i>Fuel Processing Technology</i> , 2016, 143, 195-203.	7.2	28
29	Bitumen Chemical Foaming for Asphalt Paving Applications. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 8538-8543.	3.7	26
30	Rheology and microstructure of MDI-PEG reactive prepolymer-modified bitumen. <i>Mechanics of Time-Dependent Materials</i> , 2007, 10, 347-359.	4.4	25
31	Formulation of new synthetic binders: Thermo-mechanical properties of recycled polymer/oil blends. <i>Polymer Testing</i> , 2007, 26, 323-332.	4.8	24
32	Bitumen modifiers for reduced temperature asphalts: A comparative analysis between three polymeric and non-polymeric additives. <i>Construction and Building Materials</i> , 2014, 51, 82-88.	7.2	23
33	Effect of processing variables on the linear viscoelastic properties of SBS-oil blends. <i>Polymer Engineering and Science</i> , 2001, 41, 2216-2225.	3.1	20
34	Thermomechanical and microstructural evaluation of hybrid rubberised bitumen containing a thermoplastic polymer. <i>Construction and Building Materials</i> , 2017, 157, 873-884.	7.2	20
35	Dodecylbenzenesulfonic Acid as a Bitumen Modifier: A Novel Approach To Enhance Rheological Properties of Bitumen. <i>Energy &amp; Fuels</i> , 2017, 31, 5003-5010.	5.1	19
36	Thermo-mechanical behaviour and structure of novel bitumen/nanoclay/MDI composites. <i>Composites Part B: Engineering</i> , 2015, 76, 192-200.	12.0	18

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37	Formulation and processing of novel non-aqueous polyethylene glycol-in-silicone oil (o/o) phase change emulsions. <i>Solar Energy Materials and Solar Cells</i> , 2021, 221, 110898.	6.2	17
38	Effects of MDI's PPG molecular weight on the thermorheological behaviour of MDI's isocyanate based bituminous foams. <i>Journal of Industrial and Engineering Chemistry</i> , 2013, 19, 704-711.	5.8	16
39	Thermo-mechanical properties and microstructural considerations of MDI isocyanate-based bituminous foams. <i>Materials Chemistry and Physics</i> , 2014, 146, 261-268.	4.0	13
40	Short- and Long-Term Epoxy Modification of Bitumen: Modification Kinetics, Rheological Properties, and Microstructure. <i>Polymers</i> , 2020, 12, 508.	4.5	13
41	Process rheokinetics and microstructure of recycled EVA/LDPE-modified bitumen. <i>Rheologica Acta</i> , 2006, 45, 513-524.	2.4	12
42	Effect of shear processing on the linear viscoelastic behaviour and microstructure of bitumen/montmorillonite/MDI ternary composites. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 48, 212-223.	5.8	12
43	Influence of Processing Temperature on the Modification Route and Rheological Properties of Thiourea Dioxide-Modified Bitumen. <i>Energy &amp; Fuels</i> , 2011, 25, 4055-4062.	5.1	10
44	End-performance evaluation of thiourea-modified bituminous binders through viscous flow and linear viscoelasticity testing. <i>Rheologica Acta</i> , 2013, 52, 145-154.	2.4	10
45	Effect of transesterification degree and post-treatment on the in-service performance of NCO-functionalized vegetable oil bituminous products. <i>Chemical Engineering Science</i> , 2014, 111, 126-134.	3.8	10
46	Structure-property relationships in the development of bituminous foams from MDI based prepolymer. <i>Rheologica Acta</i> , 2014, 53, 123-131.	2.4	10
47	Enhancing the viscoelastic properties of bituminous binders via thiourea-modification. <i>Fuel</i> , 2012, 97, 862-868.	6.4	9
48	Hybrid Rubberised Bitumen from Reactive and Non-Reactive Ethylene Copolymers. <i>Polymers</i> , 2019, 11, 1974.	4.5	8
49	Synergistic ethylcellulose/polyphosphoric acid modification of bitumen for paving applications. <i>Materials and Structures/Materiaux Et Constructions</i> , 2020, 53, 1.	3.1	8
50	Viscous flow properties and phase behaviour of oil-resin blends. <i>Fluid Phase Equilibria</i> , 2005, 237, 117-122.	2.5	7
51	Oil-in-Oil emulsions of stearic acid dispersed in silicone oil with enhanced energy storage capability for heat transfer fluids. <i>Solar Energy Materials and Solar Cells</i> , 2022, 245, 111893.	6.2	5
52	Role of crystallinity on the thermal and viscous behaviour of polyethylene glycol-in-silicone oil (o/o) phase change emulsions. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 103, 348-357.	5.8	4
53	New routes for roads: using recycled greenhouse films to modify bitumens. <i>International Journal of Environmental Technology and Management</i> , 2007, 7, 218.	0.2	2
54	Formulation of new synthetic binders: Thermomechanical properties of resin/recycled polymer blends. <i>Polymer Engineering and Science</i> , 2012, 52, 242-249.	3.1	2

#	ARTICLE	IF	CITATIONS
55	Emulsion Stabilization by Cationic Lignin Surfactants Derived from Bioethanol Production and Kraft Pulping Processes. <i>Polymers</i> , 2022, 14, 2879.	4.5	1
56	The Effect of Water on the Modification of Bitumen with MDI-PEG Prepolymer. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	0
57	Ageing Effects on a Softened Bitumen by the Addition of DSA (Dodecanyl Succinic Anhydride). <i>Polymers</i> , 2022, 14, 2437.	4.5	0