Pedro Partal

List of Publications by Year
in descending order

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119 papers	4,659 citations	71061 41 h-index	114418 63 g-index
119 all docs	119 docs citations	119 times ranked	2889 citing authors

#	Article	IF	Citations
1	Thermo-rheological behaviour and storage stability of ground tire rubber-modified bitumens. Fuel, 2004, 83, 2041-2049.	3.4	278
2	Viscous properties and microstructure of recycled eva modified bitumen. Fuel, 2004, 83, 31-38.	3.4	186
3	Effect of waste polymer addition on the rheology of modified bitumen. Fuel, 2006, 85, 936-943.	3.4	171
4	Rheology and stability of bitumen/EVA blends. European Polymer Journal, 2004, 40, 2365-2372.	2.6	145
5	Protein-based bioplastics: effect of thermo-mechanical processing. Rheologica Acta, 2007, 46, 711-720.	1.1	130
6	Rheological characteristics of ground tire rubber-modified bitumens. Chemical Engineering Journal, 2002, 89, 53-61.	6.6	114
7	Evaluation of thermal and mechanical properties of recycled polyethylene modified bitumen. Polymer Testing, 2008, 27, 1005-1012.	2.3	110
8	Development of highly-transparent protein/starch-based bioplastics. Bioresource Technology, 2010, 101, 2007-2013.	4.8	107
9	Influence of Crumb Rubber Concentration on the Rheological Behavior of a Crumb Rubber Modified Bitumen. Energy & Fuels, 2005, 19, 1984-1990.	2.5	105
10	Rheological characterisation of synthetic binders and unmodified bitumens. Fuel, 1999, 78, 1-10.	3.4	102
11	Rheology and processing of gluten based bioplastics. Biochemical Engineering Journal, 2005, 26, 131-138.	1.8	95
12	Novel recycled polyethylene/ground tire rubber/bitumen blends for use in roofing applications: Thermo-mechanical properties. Polymer Testing, 2010, 29, 588-595.	2.3	95
13	Rheological characterization of polysaccharideâ€“surfactant matrices for cosmetic O/W emulsions. Journal of Colloid and Interface Science, 2005, 290, 546-556.	5.0	93
14	Bitumen modification with reactive and non-reactive (virgin and recycled) polymers: A comparative analysis. Journal of Industrial and Engineering Chemistry, 2009, 15, 458-464.	2.9	91
15	Rheology and microstructure of heat-induced egg yolk gels. Rheologica Acta, 2004, 43, 184-195.	1.1	87
16	Egg white-based bioplastics developed by thermomechanical processing. Journal of Food Engineering, 2007, 82, 608-617.	2.7	82
17	Linear Viscoelasticity of Recycled EVA-Modified Bitumens. Energy & Fuels, 2004, 18, 357-364.	2.5	81
18	Bioplastics based on wheat gluten processed by extrusion. Journal of Cleaner Production, 2019, 239, 117994.	4.6	78

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19	Bitumen modification with a low-molecular-weight reactive isocyanate-terminated polymer. Fuel, 2007, 86, 2291-2299.	3.4	75
20	Processing of bitumens modified by a bio-oil-derived polyurethane. Fuel, 2014, 118, 83-90.	3.4	63
21	Effect of processing on the rheological properties of poly-urethane/urea bituminous products. Fuel Processing Technology, 2010, 91, 1139-1145.	3.7	62
22	Influence of processing conditions on the rheological behavior of crumb tire rubber-modified bitumen. Journal of Applied Polymer Science, 2007, 104, 1683-1691.	1.3	61
23	Thermal, rheological and microstructural characterisation ofÂcommercial biodegradable polyesters. Polymer Testing, 2013, 32, 716-723.	2.3	60
24	Thermo-mechanical and hydrophilic properties of polysaccharide/gluten-based bioplastics. Carbohydrate Polymers, 2014, 112, 24-31.	5.1	60
25	Wheat glutenâ€based materials plasticised with glycerol and water by thermoplastic mixing and thermomoulding. Journal of the Science of Food and Agriculture, 2011, 91, 625-633.	1.7	59
26	Effect of processing on the viscoelastic, tensile and optical properties of albumen/starch-based bioplastics. Carbohydrate Polymers, 2011, 84, 308-315.	5.1	56
27	Processing, rheology, and storage stability of recycled EVA/LDPE modified bitumen. Polymer Engineering and Science, 2007, 47, 181-191.	1.5	53
28	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.	2.6	53
29	Manufacturing Terminal and Field Bitumen-Tyre Rubber Blends: The Importance of Processing Conditions. Procedia, Social and Behavioral Sciences, 2012, 53, 485-494.	0.5	53
30	Linear viscoelastic properties of sucrose ester-stabilized oil-in-water emulsions. Journal of Rheology, 1998, 42, 1375-1388.	1.3	51
31	Rheological behaviour and physical properties of controlled-release gluten-based bioplastics. Bioresource Technology, 2009, 100, 1828-1832.	4.8	51
32	Assessment of modified lignin cationic emulsifier for bitumen emulsions used in road paving. Materials and Design, 2017, 131, 242-251.	3.3	50
33	LINEAR AND NONLINEAR VISCOELASTIC BEHAVIOR OF OIL-IN-WATER EMULSIONS STABILIZED WITH POLYSACCHARIDES. Journal of Texture Studies, 2002, 33, 215-236.	1.1	49
34	Linear and non-linear viscoelasticity of puddings for nutritional management of dysphagia. Food Hydrocolloids, 2011, 25, 586-593.	5.6	49
35	Influence of polymer melting point and Melt Flow Index on the performance of ethylene-vinyl-acetate modified bitumen for reduced-temperature application. Materials and Design, 2016, 96, 180-188.	3.3	49
36	Rheology and Microstructural Transitions in the Lamellar Phase of a Cationic Surfactant. Langmuir, 2001, 17, 1331-1337.	1.6	48

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37	Influence of pH and protei thermal treatment on the rheology of pea protein-stabilized oil-in-water emulsions. JAOCS, Journal of the American Oil Chemists' Society, 2000, 77, 975-984.	0.8	47
38	The rheology of recycled EVA/LDPE modified bitumen. Rheologica Acta, 2004, 43, 482-490.	1.1	46
39	Effect of aldehydes on thermomechanical properties of gluten-based bioplastics. Food and Bioproducts Processing, 2014, 92, 20-29.	1.8	46
40	Influence of concentration and temperature on the flow behavior of oil-in-water emulsions stabilized by sucrose palmitate. JAOCS, Journal of the American Oil Chemists' Society, 1997, 74, 1203-1212.	0.8	45
41	Influence of Bitumen Colloidal Nature on the Design of Isocyanate-Based Bituminous Products with Enhanced Rheological Properties. Industrial & Engineering Chemistry Research, 2009, 48, 8464-8470.	1.8	45
42	Isocyanate-functionalized castor oil as a novel bitumen modifier. Chemical Engineering Science, 2013, 97, 320-327.	1.9	41
43	Improvement of mechanical and water absorption properties of plant protein based bioplastics. Food Hydrocolloids, 2017, 73, 21-29.	5.6	40
44	Transient flow of o/w sucrose palmitate emulsions. Journal of Food Engineering, 1999, 41, 33-41.	2.7	39
45	Experimental study of grease flow in pipelines: wall slip and air entrainment effects. Chemical Engineering and Processing: Process Intensification, 2005, 44, 805-817.	1.8	39
46	The development of polyurethane modified bitumen emulsions for cold mix applications. Materials and Structures/Materiaux Et Constructions, 2015, 48, 3407-3414.	1.3	39
47	Development of protein-based bioplastics with antimicrobial activity by thermo-mechanical processing. Journal of Food Engineering, 2013, 117, 247-254.	2.7	38
48	Effect of pH and nanoclay content on the morphology and physicochemical properties of soy protein/montmorillonite nanocomposite obtained by extrusion. Composites Part B: Engineering, 2018, 140, 197-203.	5.9	37
49	Gluten-based bioplastics with modified controlled-release and hydrophilic properties. Industrial Crops and Products, 2013, 43, 704-710.	2.5	36
50	Influence of the prepolymer molecular weight and free isocyanate content on the rheology of polyurethane modified bitumens. European Polymer Journal, 2014, 57, 151-159.	2.6	36
51	Formulation and processing of recycled-low-density-polyethylene-modified bitumen emulsions for reduced-temperature asphalt technologies. Chemical Engineering Science, 2016, 156, 197-205.	1.9	36
52	Effect of processing temperature on the bitumen/MDI-PEG reactivity. Fuel Processing Technology, 2009, 90, 525-530.	3.7	35
53	Novel bitumen/isocyanate-based reactive polymer formulations for the paving industry. Rheologica Acta, 2010, 49, 563-572.	1.1	33
54	Rheology and microstructure of asphalt binders. Rheologica Acta, 2001, 40, 135-141.	1.1	32

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55	Bitumen chemical modification by thiourea dioxide. Fuel, 2011, 90, 2294-2300.	3.4	30
56	Use of plastic wastes from greenhouse in asphalt mixes manufactured by dry process. Road Materials and Pavement Design, 2019, 20, S265-S281.	2.0	30
57	Effect of composition and processing on the linear viscoelasticity of synthetic binders. European Polymer Journal, 2005, 41, 1429-1438.	2.6	29
58	Role of Water in the Development of New Isocyanate-Based Bituminous Products. Industrial & Engineering Chemistry Research, 2008, 47, 6933-6940.	1.8	28
59	Chemically modified bitumens with enhanced rheology and adhesion properties to siliceous aggregates. Construction and Building Materials, 2015, 93, 766-774.	3.2	28
60	Characterization of sepiolite-gel-based formulations for controlled release of pesticides. Applied Clay Science, 2009, 46, 289-295.	2.6	27
61	Bitumen Chemical Foaming for Asphalt Paving Applications. Industrial & Engineering Chemistry Research, 2010, 49, 8538-8543.	1.8	26
62	Rheology and microstructure of MDIâ€“PEG reactive prepolymer-modified bitumen. Mechanics of Time-Dependent Materials, 2007, 10, 347-359.	2.3	25
63	Formulation of new synthetic binders: Thermo-mechanical properties of recycled polymer/oil blends. Polymer Testing, 2007, 26, 323-332.	2.3	24
64	FLOW BEHAVIOUR AND STABILITY OF OIL-IN-WATER EMULSIONS STABILIZED BY A SUCROSE PALMITATE. Journal of Texture Studies, 1994, 25, 331-348.	1.1	23
65	Linear and non-linear viscoelastic behavior of SBS and LDPE modified bituminous mastics. Construction and Building Materials, 2016, 123, 464-472.	3.2	23
66	Influence of Temperature and Composition on the Linear Viscoelastic Properties of Synthetic Binders. Energy & Fuels, 2000, 14, 131-137.	2.5	22
67	Influence of pressure and temperature on the flow behaviour of heavy fuel oils. Rheologica Acta, 2006, 45, 357-365.	1.1	22
68	Rheological behaviour of polymer-modified bituminous mastics: A comparative analysis between physical and chemical modification. Construction and Building Materials, 2012, 27, 234-240.	3.2	21
69	Effect of processing variables on the linear viscoelastic properties of SBS-oil blends. Polymer Engineering and Science, 2001, 41, 2216-2225.	1.5	20
70	Effect of pH and added electrolyte on the thermal-induced transitions of egg yolk. Rheologica Acta, 2004, 43, 539-549.	1.1	20
71	Development of antimicrobial active packaging materials based on gluten proteins. Journal of the Science of Food and Agriculture, 2016, 96, 3432-3438.	1.7	20
72	Thermomechanical and microstructural evaluation of hybrid rubberised bitumen containing a thermoplastic polymer. Construction and Building Materials, 2017, 157, 873-884.	3.2	20

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73	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.	3.0	17
74	Droplet-size distribution and stability of lipid injectable emulsions. American Journal of Health-System Pharmacy, 2009, 66, 162-166.	0.5	16
75	Synergistic effect of combined nanoparticles to elaborate exfoliated egg-white protein-based nanobiocomposites. Composites Part B: Engineering, 2016, 88, 36-43.	5.9	16
76	Effect of the lupin protein/surfactant ratio on linear viscoelastic properties of oil-in-water emulsions. Journal of Surfactants and Detergents, 1999, 2, 545-551.	1.0	15
77	Influence of surfactant addition on the rheological properties of aqueous Welan matrices. Rheologica Acta, 2001, 40, 128-134.	1.1	15
78	Steady-state flow behaviour of synthetic binders. Fuel, 2001, 80, 357-365.	3.4	15
79	Sustainable asphalt mixes manufactured with reclaimed asphalt and modified-lignin-stabilized bitumen emulsions. Construction and Building Materials, 2018, 173, 662-671.	3.2	15
80	Thermo-rheological behaviour and storage stability of ground tire rubber-modified bitumens. Fuel, 2004, 83, 2041-2041.	3.4	14
81	Modelling of pyrolysis and combustion of glutenâ€“glycerol-based bioplastics. Bioresource Technology, 2011, 102, 6246-6253.	4.8	13
82	Short- and Long-Term Epoxy Modification of Bitumen: Modification Kinetics, Rheological Properties, and Microstructure. Polymers, 2020, 12, 508.	2.0	13
83	Process rheokinetics and microstructure of recycled EVA/LDPE-modified bitumen. Rheologica Acta, 2006, 45, 513-524.	1.1	12
84	Binder Design for Asphalt Mixes with Reduced Temperature: EVA Modified Bitumen and its Emulsions. Transportation Research Procedia, 2016, 14, 3512-3518.	0.8	12
85	Education of chemical engineering in Spain: A global picture. Education for Chemical Engineers, 2018, 24, 27-31.	2.8	11
86	Linear viscoelasticity of O/W sucrose-palmitate emulsions. , 1996, , 246-251.		10
87	Linear and non-linear viscoelasticity of low-in-cholesterol mayonnaise / Viscoelasticidad lineal y no lineal de mayonesas con bajo contenido en colesterol. Food Science and Technology International, 2000, 6, 165-172.	1.1	10
88	Influence of thermal treatment on the flow of starch-based food emulsions. European Food Research and Technology, 2003, 217, 17-22.	1.6	10
89	Influence of Processing Temperature on the Modification Route and Rheological Properties of Thiourea Dioxide-Modified Bitumen. Energy & Fuels, 2011, 25, 4055-4062.	2.5	10
90	End-performance evaluation of thiourea-modified bituminous binders through viscous flow and linear viscoelasticy testing. Rheologica Acta, 2013, 52, 145-154.	1.1	10

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91	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.	1.9	10
92	Selection of ethylene-vinyl-acetate properties for modified bitumen with enhanced end-performance. Rheologica Acta, 2018, 57, 71-82.	1.1	10
93	Rheological characterization of egg yolk processed by spray-drying and lipid-cholesterol extraction with carbon dioxide. JAOCS, Journal of the American Oil Chemists' Society, 2002, 79, 183-190.	0.8	9
94	Enhancing the viscoelastic properties of bituminous binders via thiourea-modification. Fuel, 2012, 97, 862-868.	3.4	9
95	Modification of bitumen using polyurethanes. , 2011, , 43-71.		8
96	Hybrid Rubberised Bitumen from Reactive and Non-Reactive Ethylene Copolymers. Polymers, 2019, 11, 1974.	2.0	8
97	Synergistic ethylcellulose/polyphosphoric acid modification of bitumen for paving applications. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	8
98	Viscous flow properties and phase behaviour of oilâ€“resin blends. Fluid Phase Equilibria, 2005, 237, 117-122.	1.4	7
99	Emulsiones alimentarias aceite-en-agua estabilizadas con proteÃnas de atÃºn. Grasas Y Aceites, 2010, 61, 352-360.	0.3	7
100	Effect of Salt on the Rheological Properties of Low-in-Fat O/W Emulsions Stabilised with Polysaccharides. Food Science and Technology International, 2002, 8, 213-221.	1.1	6
101	Rheology of spray-dried egg-yolk products. Grasas Y Aceites, 2000, 51, .	0.3	6
102	Droplet-size distribution and stability of commercial injectable lipid emulsions containing fish oil. American Journal of Health-System Pharmacy, 2012, 69, 1332-1335.	0.5	5
103	Stability assessment of non-aqueous polymer dispersions through viscous flow and linear viscoelastic rheological tests. Polymer Testing, 2016, 50, 164-171.	2.3	5
104	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.	3.0	5
105	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.	2.9	4
106	Linear viscoelastic behaviour of oil-in-water food emulsions stabilised by tuna-protein isolates. Food Science and Technology International, 2013, 19, 3-10.	1.1	3
107	Rheology of Polymer Processing in Spain (1995â€“2020). Polymers, 2021, 13, 2314.	2.0	3
108	Comportamiento reolÃ³gico no estacionario de emulsiones aceite en agua estabilizadas con un palmitato de sacarosa.. Grasas Y Aceites, 1997, 48, 425-436.	0.3	3

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109	New routes for roads: using recycled greenhouse films to modify bitumens. International Journal of Environmental Technology and Management, 2007, 7, 218.	0.1	2
110	Formulation of new synthetic binders: Thermomechanical properties of resin/recycled polymer blends. Polymer Engineering and Science, 2012, 52, 242-249.	1.5	2
111	Reprint of: Education of chemical engineering in Spain: A global picture. Education for Chemical Engineers, 2019, 26, 2-7.	2.8	2
112	Bioethanol Production and Alkali Pulp Processes as Sources of Anionic Lignin Surfactants. Polymers, 2021, 13, 2703.	2.0	1
113	Gelation of egg yolk: DSC, rheology and electron microscopy. Special Publication - Royal Society of Chemistry, 2009, , 179-186.	0.0	1
114	Emulsion Stabilization by Cationic Lignin Surfactants Derived from Bioethanol Production and Kraft Pulping Processes. Polymers, 2022, 14, 2879.	2.0	1
115	The Effect of Water on the Modification of Bitumen with MDI-PEG Prepolymer. AIP Conference Proceedings, 2008, , .	0.3	0
116	Influence of pH and ionic strength on the thermalinduced transitions of egg yolk dispersions. Grasas Y Aceites, 2007, 58, .	0.3	0
117	Influence of the Addition of a Polysaccharide to Protein-based Biodegradable Polymeric Materials Processed by a Thermomechanical Procedure. Special Publication - Royal Society of Chemistry, 2012, , 295-302.	0.0	0
118	Influence of Processing on the Rheology of Egg Yolk Products. , 1998, , 191-192.		0
119	Ageing Effects on a Softened Bitumen by the Addition of DSA (Dodecenyl Succinic Anhydride). Polymers, 2022, 14, 2437.	2.0	0