Maria da GraÃ§a Rasteiro

List of Publications by Year
in descending order

127 papers	1,987 citations	236925 25 h-index	345221 36 g-index
130 all docs	130 docs citations	130 times ranked	2077 citing authors

#	Article	IF	Citations
1	Computational Fluid Dynamic Modelling of Fully-Suspended Slurry Flows in Horizontal Pipes with Different Solids Concentrations. KONA Powder and Particle Journal, 2023, 40, 219-235.	1.7	0
2	High-performance delignification of invasive tree species wood with ionic liquid and deep eutectic solvent for the production of cellulose-based polyelectrolytes. RSC Advances, 2022, 12, 3979-3989.	3.6	7
3	Effect of cationization pretreatment on the properties of cationic Eucalyptus micro/nanofibrillated cellulose. International Journal of Biological Macromolecules, 2022, 201, 468-479.	7.5	20
4	Composite Films of Nanofibrillated Cellulose with Sepiolite: Effect of Preparation Strategy. Coatings, 2022, 12, 303.	2.6	8
5	Extraction and Characterization of Microplastics from Portuguese Industrial Effluents. Polymers, 2022, 14, 2902.	4.5	5
6	Revisiting the dissolution of cellulose in H3PO4(aq) through cryo-TEM, PTssNMR and DWS. Carbohydrate Polymers, 2021, 252, 117122.	10.2	10
7	Lignin Extraction from Waste Pine Sawdust Using a Biomass Derived Binary Solvent System. Polymers, 2021, 13, 1090.	4.5	15
8	Heavy Metals Removal from Aqueous Solutions by Multiwall Carbon Nanotubes: Effect of MWCNTs Dispersion. Nanomaterials, 2021, 11, 2082.	4.1	19
9	Computational Fluid Dynamics Modelling of Liquidâ€“Solid Slurry Flows in Pipelines: State-of-the-Art and Future Perspectives. Processes, 2021, 9, 1566.	2.8	29
10	Key-Parameters in Chemical Stabilization of Soils with Multiwall Carbon Nanotubes. Applied Sciences (Switzerland), 2021, 11, 8754.	2.5	5
11	Valorisation of invasive plant species in the production of polyelectrolytes. Industrial Crops and Products, 2021, 167, 113476.	5.2	5
12	Production of nanocellulose gels and films from invasive tree species. International Journal of Biological Macromolecules, 2021, 188, 1003-1011.	7.5	16
13	Stabilization of Palygorskite Aqueous Suspensions Using Bio-Based and Synthetic Polyelectrolytes. Polymers, 2021, 13, 129.	4.5	8
14	Evaluation of Anionic Eco-Friendly Flocculants Prepared from Eucalyptus Pulps with Diverse Lignin Contents for Application in Effluent Treatment. Polymers, 2021, 13, 25.	4.5	3
15	Up-scaling of tannin-based coagulants for wastewater treatment: performance in a water treatment plant. Environmental Science and Pollution Research, 2020, 27, 1202-1213.	5.3	25
16	Flocculation of silica nanoparticles by natural, wood-based polyelectrolytes. Separation and Purification Technology, 2020, 231, 115888.	7.9	25
17	Editorial: Advanced Processes for Wastewater Treatment and Water Reuse. Frontiers in Environmental Science, 2020, 8, .	3.3	1
18	Immobilization of Heavy Metals in Contaminated Soilsâ€”Performance Assessment in Conditions Similar to a Real Scenario. Applied Sciences (Switzerland), 2020, 10, 7950.	2.5	15

#	Article	IF	Citations
19	Characterization of Two Cactus Formulation-Based Flocculants and Investigation on Their Flocculating Ability for Cationic and Anionic Dyes Removal. Polymers, 2020, 12, 1964.	4.5	8
20	Microplastics in Ecosystems: From Current Trends to Bio-Based Removal Strategies. Molecules, 2020, 25, 3954.	3.8	30
21	Improving Colloidal Stability of Sepiolite Suspensions: Effect of the Mechanical Disperser and Chemical Dispersant. Minerals (Basel, Switzerland), 2020, 10, 779.	2.0	15
22	Experimental Fluid Dynamics Study of a New Fractal Dual-Flow Tray. Industrial & Engineering Chemistry Research, 2020, 59, 12545-12556.	3.7	1
23	Tuning rheology and aggregation behaviour of TEMPO-oxidised cellulose nanofibrils aqueous suspensions by addition of different acids. Carbohydrate Polymers, 2020, 237, 116109.	10.2	39
24	Data-Driven Modelling of the Complex Interaction between Flocculant Properties and Floc Size and Structure. Processes, 2020, 8, 349.	2.8	5
25	Experimental and Computational Fluid Dynamics Validation of Correlations for Dry Pressure Drop in Trays without Downcomer. Chemical Engineering and Technology, 2020, 43, 553-563.	1.5	1
26	The critical role of the dispersant agents in the preparation and ecotoxicity of nanomaterial suspensions. Environmental Science and Pollution Research, 2020, 27, 19845-19857.	5.3	5
27	Enhancing the autonomy of students in chemical engineering education with LABVIRTUAL platform. Education for Chemical Engineers, 2020, 31, 21-28.	4.8	20
28	Electrical Tomography: A Review of Configurations, and Application to Fibre Flow Suspensions Characterisation. Applied Sciences (Switzerland), 2020, 10, 2355.	2.5	13
29	Toward green technology: a review on some efficient model plant-based coagulants/flocculants for freshwater and wastewater remediation. Clean Technologies and Environmental Policy, 2020, 22, 1025-1040.	4.1	45
30	Evaluation of Anionic and Cationic Pulp-Based Flocculants With Diverse Lignin Contents for Application in Effluent Treatment From the Textile Industry: Flocculation Monitoring. Frontiers in Chemistry, 2020, 8, 5.	3.6	23
31	Oil/water flow in a horizontal pipeâ€"dispersed flow regime. International Journal of Computational Methods and Experimental Measurements, 2020, 8, 123-134.	0.2	0
32	Experimental and Simulated Studies of Oil/Water Fully Dispersed Flow in a Horizontal Pipe. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, .	1.5	6
33	Effects of cobalt oxide nanomaterial on plants and soil invertebrates at different levels of biological organization. Journal of Soils and Sediments, 2019, 19, 3018-3034.	3.0	10
34	Cationization of Eucalyptus wood waste pulps with diverse lignin contents for potential application in colored wastewater treatment. RSC Advances, 2019, 9, 34814-34826.	3.6	13
35	Oil/water stratified flow in a horizontal pipe: Simulated and experimental studies using EIT. Journal of Petroleum Science and Engineering, 2019, 174, 1179-1193.	4.2	19
36	Is the aquatic toxicity of cationic polyelectrolytes predictable from selected physical properties?. Chemosphere, 2018, 202, 145-153.	8.2	23

#	Article	IF	Citations
37	Flocculation Treatment of an Industrial Effluent: Performance Assessment by Laser Diffraction Spectroscopy. Industrial & Engineering Chemistry Research, 2018, 57, 2628-2637.	3.7	6
38	Effects of Poly(vinyl chloride) Morphological Properties on the Rheology/Aging of Plastisols and on the Thermal/Leaching Properties of Films Formulated Using Nonconventional Plasticizers. Industrial & Engineering Chemistry Research, 2018, 57, 1454-1467.	3.7	5
39	Deriviation of Terrestrial Predicted No-Effect Concentration (PNEC) for Cobalt Oxide Nanomaterial. Advances in Science, Technology and Innovation, 2018, , 405-407.	0.4	0
40	Anionic Polyelectrolytes Synthesized in an Aromatic-Free-Oils Process for Application as Flocculants in Dairy-Industry-Effluent Treatment. Industrial & Engineering Chemistry Research, 2018, 57, 16884-16896.	3.7	5
41	Tannin-based Coagulants from Laboratory to Pilot Plant Scales for Coloured Wastewater Treatment. BioResources, 2018, 13, 2727-2747.	1.0	26
42	LABVIRTUALâ€"A platform for the teaching of chemical engineering: The use of interactive videos. Computer Applications in Engineering Education, 2018, 26, 1668-1676.	3.4	15
43	Producing New Flocculants Using Health-Friendly Ingredients In Water Treatment. , 2018, , .		0
44	Oxidative stress and genotoxicity of an organic and an inorganic nanomaterial to Eisenia andrei : SDS/DDAB nano-vesicles and titanium silicon oxide. Ecotoxicology and Environmental Safety, 2017, 140, 198-205.	6.0	11
45	Application of carbon nanotubes to immobilize heavy metals in contaminated soils. Journal of Nanoparticle Research, 2017, 19, 1.	1.9	42
46	Experimental Study and Computational Fluid Dynamics Modeling of Pulp Suspensions Flow in a Pipe. Journal of Fluids Engineering, Transactions of the ASME, 2017, 139, .	1.5	5
47	Environmentally friendly cellulose-based polyelectrolytes in wastewater treatment. Water Science and Technology, 2017, 76, 1490-1499.	2.5	26
48	A more eco-friendly synthesis of flocculants to treat wastewaters using health-friendly solvents. Colloid and Polymer Science, 2017, 295, 2123-2131.	2.1	7
49	Influence of the stabilizers on the toxicity of metallic nanomaterials in aquatic organisms and human cell lines. Science of the Total Environment, 2017, 607-608, 1264-1277.	8.0	18
50	Pre-treatment of industrial olive oil mill effluent using low dosage health-friendly cationic polyelectrolytes. Journal of Environmental Chemical Engineering, 2017, 5, 6053-6060.	6.7	6
51	Modelling of concentrated fibre suspension pipe flow with low-Reynolds-number k-Îµ turbulence models: new damping function. Nordic Pulp and Paper Research Journal, 2017, 32, 132-147.	0.7	3
52	Evaluation of on-line simulation tools to teach Chemical Processes. , 2017, , .		1
53	Modelling of concentrated fibre suspension pipe flow with low-reynolds-number k-ε turbulence models: new damping function. Nordic Pulp and Paper Research Journal, 2017, 32, 133-148.	0.7	0
54	Evaluation of the Performance of Dual Polyelectrolyte Systems on the Re-Flocculation Ability of Calcium Carbonate Aggregates in Turbulent Environment. Polymers, 2016, 8, 174.	4.5	4

#	Article	IF	Citations
55	Characterization of solidâ€“liquid settling suspensions using Electrical Impedance Tomography: A comparison between numerical, experimental and visual information. Chemical Engineering Research and Design, 2016, 111, 223-242.	5.6	20
56	Ecotoxicity of titanium silicon oxide (TiSiO4) nanomaterial for terrestrial plants and soil invertebrate species. Ecotoxicology and Environmental Safety, 2016, 129, 291-301.	6.0	34
57	Validating dilute settling suspensions numerical data through MRI, UVP and EIT measurements. Flow Measurement and Instrumentation, 2016, 50, 35-48.	2.0	10
58	Nanotechnology Applied to Chemical Soil Stabilization. Procedia Engineering, 2016, 143, 1252-1259.	1.2	32
59	Numerical simulation of turbulent pulp flow of concentrated suspensions: Influence of the non-Newtonian properties of the pulp. Particulate Science and Technology, 2016, 34, 442-452.	2.1	5
60	Impact of organic nano-vesicles in soil: The case of sodium dodecyl sulphate/didodecyl dimethylammonium bromide. Science of the Total Environment, 2016, 547, 413-421.	8.0	19
61	A comparative study of magnetic resonance imaging, electrical impedance tomography and ultrasonic doppler velocimetry for semi-dilute fibre flow suspension characterisation. International Journal of Computational Methods and Experimental Measurements, 2016, 4, 165-175.	0.2	2
62	Settling Suspensions Flow Modelling: A Review. KONA Powder and Particle Journal, 2015, 32, 41-56.	1.7	40
63	Assessing the ecotoxicity of metal nano-oxides with potential for wastewater treatment. Environmental Science and Pollution Research, 2015, 22, 13212-13224.	5.3	51
64	CFD simulation of a turbulent fiber suspension flow â€“ a modified near-wall treatment. Engineering Applications of Computational Fluid Mechanics, 2015, 9, 233-246.	3.1	6
65	Evaluating the Performance of the Mixture Model Coupled with High and Low Reynolds Turbulence Closures in the Numerical Description of Concentrated Solid-Liquid Flows of Settling Particles. Journal of Computational Multiphase Flows, 2015, 7, 241-257.	0.8	10
66	Surfactants for dispersion of carbon nanotubes applied in soil stabilization. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 480, 405-412.	4.7	31
67	Particle Distribution Studies in Highly Concentrated Solid-liquid Flows in Pipe Using the Mixture Model. Procedia Engineering, 2015, 102, 1016-1025.	1.2	22
68	Application of Different Low-Reynolds k-É› Turbulence Models to Model the Flow of Concentrated Pulp Suspensions in Pipes. Procedia Engineering, 2015, 102, 1326-1335.	1.2	14
69	Applying Multiwall Carbon Nanotubes for Soil Stabilization. Procedia Engineering, 2015, 102, 1766-1775.	1.2	26
70	Correlating Aggregates Structure with PEL Characteristics Using an Experimental Design Methodology. Procedia Engineering, 2015, 102, 1697-1706.	1.2	2
71	Evaluation of the Flocculation and Reflocculation Performance of a System with Calcium Carbonate, Cationic Acrylamide Co-polymers, and Bentonite Microparticles. Industrial & Engineering Chemistry Research, 2015, 54, 198-206.	3.7	19
72	Correlation between flocculation and adsorption of cationic polyacrylamides on precipitated calcium carbonate. Chemical Engineering Research and Design, 2015, 95, 298-306.	5.6	21

#	Article	IF	Citations
73	MODELING SOLID-LIQUID HOMOGENEOUS TURBULENT FLOW OF NEUTRALLY BUOYANT PARTICLES USING THE MIXTURE MODEL: A STUDY OF LENGTH SCALES AND CLOSURE COEFFICIENTS. Multiphase Science and Technology, 2014, 26, 199-227.	0.5	2
74	Online experimentation: Experiment@Portugal 2012. , 2014, , .		3
75	How nanomaterials will interfere with the toxicity of copper?. Toxicology Letters, 2014, 229, S202.	0.8	0
76	Effects of Two Phosphonium-Type Ionic Liquids on the Rheological and Thermomechanical Properties of Emulsion Poly(vinyl chloride)-Based Formulations Plasticized with DINP and CITROFOL. Industrial & Engineering Chemistry Research, 2014, 53, 16061-16071.	3.7	8
77	Ecotoxicological Evaluation Of Titanium Silicon Oxide Nanoparticules With Terrestrial Species. Toxicology Letters, 2014, 229, S201.	0.8	0
78	The effects of acrylamide polyelectrolytes on aquatic organisms: Relating toxicity to chain architecture. Chemosphere, 2014, 112, 177-184.	8.2	28
79	An interactive video to demonstrate how to characterize nanoparticles. , 2013, , .		0
80	Interactive simulators: A contribution to link theory and applications in the teaching of chemical processes. , 2013, , .		0
81	Biochemical and metabolic effects of a short-term exposure to nanoparticles of titanium silicate in tadpoles of Pelophylax perezi (Seoane). Aquatic Toxicology, 2013, 128-129, 190-192.	4.0	22
82	An experimental design methodology to evaluate the importance of different parameters on flocculation by polyelectrolytes. Powder Technology, 2013, 238, 2-13.	4.2	12
83	Toxicity of organic and inorganic nanoparticles to four species of white-rot fungi. Science of the Total Environment, 2013, 458-460, 290-297.	8.0	26
84	Using video tools to teach nanoparticles characterization: Contents for a distance learning course. , 2013, , .		0
85	On-line Tools to Teach Chemical Engineering: Exploring Synergies. International Journal of Engineering Pedagogy, 2013, 3, 26.	1.1	1
86	Multimedia Tools to Learn About Nanoparticles Characterization. International Journal of Online and Biomedical Engineering, 2013, 9, 77.	1.4	0
87	Talking about Teaching 2012. International Journal of Engineering Pedagogy, 2013, 3, 4.	1.1	1
88	On-line labs to teach Chemical engineering: Synergies between complementary tools. , 2012, , .		0
89	Imaging Particulate Two-Phase Flow in Liquid Suspensions with Electric Impedance Tomography. Particulate Science and Technology, 2012, 30, 329-342.	2.1	16
90	Using a Web Platform Developed for the Teaching of Chemical Processes to Reach Secondary School Students. International Journal of Online and Biomedical Engineering, 2012, 8, 42.	1.4	0

#	Article	IF	Citations
91	Toxicity and genotoxicity of organic and inorganic nanoparticles to the bacteria Vibrio fischeri and Salmonella typhimurium. Ecotoxicology, 2012, 21, 637-648.	2.4	64
92	Impact of organic and inorganic nanomaterials in the soil microbial community structure. Science of the Total Environment, 2012, 424, 344-350.	8.0	80
93	A virtual platform to teach separation processes. Computer Applications in Engineering Education, 2012, 20, 175-186.	3.4	22
94	Modeling the Turbulent Flow of Pulp Suspensions. Industrial & Engineering Chemistry Research, 2011, 50, 9735-9742.	3.7	13
95	Electrical Tomography: a review of Configurations and Applications to Particulate Processes. KONA Powder and Particle Journal, 2011, 29, 67-80.	1.7	35
96	Screening evaluation of the ecotoxicity and genotoxicity of soils contaminated with organic and inorganic nanoparticles: The role of ageing. Journal of Hazardous Materials, 2011, 194, 345-354.	12.4	36
97	Solution viscosity and flocculation characteristics of linear polymeric flocculants in various media. Chemical Engineering Research and Design, 2011, 89, 1037-1044.	5.6	10
98	Using Light Scattering to Screen Polyelectrolytes (PEL) Performance in Flocculation. Polymers, 2011, 3, 915-927.	4.5	18
99	Epoxy/steel fiber compositesâ€"A simple model to predict the fiber sedimentation. Polymer Composites, 2010, 31, 1378-1386.	4.6	5
100	Rheology of poly(vinyl chloride) plastisol: Effect of a particular nonionic cosurfactant. Journal of Applied Polymer Science, 2010, 115, 599-607.	2.6	5
101	Flocculation by cationic polyelectrolytes: Relating efficiency with polyelectrolyte characteristics. Journal of Applied Polymer Science, 2010, 116, 3603-3612.	2.6	11
102	Modelling PCC flocculation by bridging mechanism using population balances: Effect of polymer characteristics on flocculation. Chemical Engineering Science, 2010, 65, 3798-3807.	3.8	37
103	Evaluation of Polyelectrolyte Performance on PCC Flocculation Using the LDS Technique. Particulate Science and Technology, 2010, 28, 426-441.	2.1	4
104	PVC paste rheology: Study of process dependencies. Journal of Applied Polymer Science, 2009, 112, 2809-2821.	2.6	14
105	LABVIRTUALâ€"A virtual platform to teach chemical processes. Education for Chemical Engineers, 2009, 4, e9-e19.	4.8	37
106	AN EXPERIMENTAL INVESTIGATION ON THE RELATIVE ROLES OF ENERGY INPUT, SURFACE TENSION, AND VISCOSITY ON THE BREAKUP OF A LIQUID DROP. Small Group Research, 2009, 19, 1193-1207.	2.7	1
107	Evaluation of flocs resistance and reflocculation capacity using the LDS technique. Powder Technology, 2008, 183, 231-238.	4.2	42
108	The use of LDS as a tool to evaluate flocculation mechanisms. Chemical Engineering and Processing: Process Intensification, 2008, 47, 1323-1332.	3.6	86

#	Article	IF	Citations
109	Flocculation of PCC filler in papermaking: Influence of the particle characteristics. Chemical Engineering Research and Design, 2008, 86, 1155-1160.	5.6	15
110	Use of New Branched Cationic Polyacrylamides to Improve Retention and Drainage in Papermaking. Industrial & Engineering Chemistry Research, 2008, 47, 9370-9375.	3.7	35
111	Nanoparticle Characterization by PCS: The Analysis of Bimodal Distributions. Particulate Science and Technology, 2008, 26, 413-437.	2.1	16
112	Polyurethane-based microparticles: Formulation and influence of processes variables on its characteristics. Journal of Microencapsulation, 2008, 25, 154-169.	2.8	31
113	Effect of Water Cationic Content on Flocculation, Flocs Resistance and Reflocculation Capacity of PCC Induced by Polyelectrolytes. Industrial & Engineering Chemistry Research, 2008, 47, 6006-6013.	3.7	35
114	Applying LDS to Monitor Flocculation in Papermaking. Particulate Science and Technology, 2007, 25, 303-308.	2.1	20
115	Crystalline phase characterization of glass-ceramic glazes. Ceramics International, 2007, 33, 345-354.	4.8	72
116	The Influence of Particle Size Distribution on the Performance of Ceramic Particulate Suspensions. Particle and Particle Systems Characterization, 2007, 24, 101-107.	2.3	3
117	Effect of Aging on Glaze Suspensions Rheology. Journal of the American Ceramic Society, 2007, 90, 1693-1702.	3.8	4
118	Virtual Applications Using a Web Platform to Teach Chemical Engineering. Education for Chemical Engineers, 2007, 2, 20-28.	4.8	20
119	Correlating the Rheology of PVC-Based Pastes with Particle Characteristics. Particulate Science and Technology, 2005, 23, 361-375.	2.1	15
120	Rheology of Particulate Suspensions in Ceramic Industry. Particulate Science and Technology, 2005, 23, 145-157.	2.1	7
121	From Particle Size Analysis (PSA 1970) to Particulate Systems Analysis (PSA 2003). Chemical Engineering Research and Design, 2004, 82, 1533-1540.	5.6	7
122	Experimental Study of the Rheology of Fibre Suspensions. Chemie-Ingenieur-Technik, 2001, 73, 746-746.	0.8	0
123	Modelling slurry mixing tanks. Advanced Powder Technology, 1994, 5, 1-14.	4.1	6
124	A new approach to measuring solids concentration in mixing tanks. Advanced Powder Technology, 1994, 5, 15-24.	4.1	3
125	INFLUENCE OF SHAPE ON PARTICLE SIZE ANALYSIS. Particulate Science and Technology, 1993, 11, 199-206.	2.1	9
126	PRESSURE DROP FOR SOLID/LIQUID FLOW IN PIPES. Particulate Science and Technology, 1993, 11, 147-155.	2.1	10

#	Article	IF	Citations
127	Mass Calibration of the Coulter Counter Model ZM. Particle and Particle Systems Characterization, 1991, 8, 294-296.	2.3	2