

# Maria da Graça Rasteiro

## List of Publications by Year in descending order

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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	The use of LDS as a tool to evaluate flocculation mechanisms. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008, 47, 1323-1332.	3.6	86
2	Impact of organic and inorganic nanomaterials in the soil microbial community structure. <i>Science of the Total Environment</i> , 2012, 424, 344-350.	8.0	80
3	Crystalline phase characterization of glass-ceramic glazes. <i>Ceramics International</i> , 2007, 33, 345-354.	4.8	72
4	Toxicity and genotoxicity of organic and inorganic nanoparticles to the bacteria <i>Vibrio fischeri</i> and <i>Salmonella typhimurium</i> . <i>Ecotoxicology</i> , 2012, 21, 637-648.	2.4	64
5	Assessing the ecotoxicity of metal nano-oxides with potential for wastewater treatment. <i>Environmental Science and Pollution Research</i> , 2015, 22, 13212-13224.	5.3	51
6	Toward green technology: a review on some efficient model plant-based coagulants/flocculants for freshwater and wastewater remediation. <i>Clean Technologies and Environmental Policy</i> , 2020, 22, 1025-1040.	4.1	45
7	Evaluation of flocs resistance and reflocculation capacity using the LDS technique. <i>Powder Technology</i> , 2008, 183, 231-238.	4.2	42
8	Application of carbon nanotubes to immobilize heavy metals in contaminated soils. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	42
9	Settling Suspensions Flow Modelling: A Review. <i>KONA Powder and Particle Journal</i> , 2015, 32, 41-56.	1.7	40
10	Tuning rheology and aggregation behaviour of TEMPO-oxidised cellulose nanofibrils aqueous suspensions by addition of different acids. <i>Carbohydrate Polymers</i> , 2020, 237, 116109.	10.2	39
11	LABVIRTUAL – A virtual platform to teach chemical processes. <i>Education for Chemical Engineers</i> , 2009, 4, e9-e19.	4.8	37
12	Modelling PCC flocculation by bridging mechanism using population balances: Effect of polymer characteristics on flocculation. <i>Chemical Engineering Science</i> , 2010, 65, 3798-3807.	3.8	37
13	Screening evaluation of the ecotoxicity and genotoxicity of soils contaminated with organic and inorganic nanoparticles: The role of ageing. <i>Journal of Hazardous Materials</i> , 2011, 194, 345-354.	12.4	36
14	Use of New Branched Cationic Polyacrylamides to Improve Retention and Drainage in Papermaking. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 9370-9375.	3.7	35
15	Effect of Water Cationic Content on Flocculation, Flocs Resistance and Reflocculation Capacity of PCC Induced by Polyelectrolytes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 6006-6013.	3.7	35
16	Electrical Tomography: a review of Configurations and Applications to Particulate Processes. <i>KONA Powder and Particle Journal</i> , 2011, 29, 67-80.	1.7	35
17	Ecotoxicity of titanium silicon oxide (TiSiO <sub>4</sub> ) nanomaterial for terrestrial plants and soil invertebrate species. <i>Ecotoxicology and Environmental Safety</i> , 2016, 129, 291-301.	6.0	34
18	Nanotechnology Applied to Chemical Soil Stabilization. <i>Procedia Engineering</i> , 2016, 143, 1252-1259.	1.2	32

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19	Polyurethane-based microparticles: Formulation and influence of processes variables on its characteristics. <i>Journal of Microencapsulation</i> , 2008, 25, 154-169.	2.8	31
20	Surfactants for dispersion of carbon nanotubes applied in soil stabilization. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 480, 405-412.	4.7	31
21	Microplastics in Ecosystems: From Current Trends to Bio-Based Removal Strategies. <i>Molecules</i> , 2020, 25, 3954.	3.8	30
22	Computational Fluid Dynamics Modelling of Liquid-Solid Slurry Flows in Pipelines: State-of-the-Art and Future Perspectives. <i>Processes</i> , 2021, 9, 1566.	2.8	29
23	The effects of acrylamide polyelectrolytes on aquatic organisms: Relating toxicity to chain architecture. <i>Chemosphere</i> , 2014, 112, 177-184.	8.2	28
24	Toxicity of organic and inorganic nanoparticles to four species of white-rot fungi. <i>Science of the Total Environment</i> , 2013, 458-460, 290-297.	8.0	26
25	Applying Multiwall Carbon Nanotubes for Soil Stabilization. <i>Procedia Engineering</i> , 2015, 102, 1766-1775.	1.2	26
26	Environmentally friendly cellulose-based polyelectrolytes in wastewater treatment. <i>Water Science and Technology</i> , 2017, 76, 1490-1499.	2.5	26
27	Tannin-based Coagulants from Laboratory to Pilot Plant Scales for Coloured Wastewater Treatment. <i>BioResources</i> , 2018, 13, 2727-2747.	1.0	26
28	Up-scaling of tannin-based coagulants for wastewater treatment: performance in a water treatment plant. <i>Environmental Science and Pollution Research</i> , 2020, 27, 1202-1213.	5.3	25
29	Flocculation of silica nanoparticles by natural, wood-based polyelectrolytes. <i>Separation and Purification Technology</i> , 2020, 231, 115888.	7.9	25
30	Is the aquatic toxicity of cationic polyelectrolytes predictable from selected physical properties?. <i>Chemosphere</i> , 2018, 202, 145-153.	8.2	23
31	Evaluation of Anionic and Cationic Pulp-Based Flocculants With Diverse Lignin Contents for Application in Effluent Treatment From the Textile Industry: Flocculation Monitoring. <i>Frontiers in Chemistry</i> , 2020, 8, 5.	3.6	23
32	A virtual platform to teach separation processes. <i>Computer Applications in Engineering Education</i> , 2012, 20, 175-186.	3.4	22
33	Biochemical and metabolic effects of a short-term exposure to nanoparticles of titanium silicate in tadpoles of <i>Pelophylax perezi</i> (Seoane). <i>Aquatic Toxicology</i> , 2013, 128-129, 190-192.	4.0	22
34	Particle Distribution Studies in Highly Concentrated Solid-liquid Flows in Pipe Using the Mixture Model. <i>Procedia Engineering</i> , 2015, 102, 1016-1025.	1.2	22
35	Correlation between flocculation and adsorption of cationic polyacrylamides on precipitated calcium carbonate. <i>Chemical Engineering Research and Design</i> , 2015, 95, 298-306.	5.6	21
36	Applying LDS to Monitor Flocculation in Papermaking. <i>Particulate Science and Technology</i> , 2007, 25, 303-308.	2.1	20

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37	Virtual Applications Using a Web Platform to Teach Chemical Engineering. <i>Education for Chemical Engineers</i> , 2007, 2, 20-28.	4.8	20
38	Characterization of solid-liquid settling suspensions using Electrical Impedance Tomography: A comparison between numerical, experimental and visual information. <i>Chemical Engineering Research and Design</i> , 2016, 111, 223-242.	5.6	20
39	Enhancing the autonomy of students in chemical engineering education with LABVIRTUAL platform. <i>Education for Chemical Engineers</i> , 2020, 31, 21-28.	4.8	20
40	Effect of cationization pretreatment on the properties of cationic Eucalyptus micro/nanofibrillated cellulose. <i>International Journal of Biological Macromolecules</i> , 2022, 201, 468-479.	7.5	20
41	Evaluation of the Flocculation and Reflocculation Performance of a System with Calcium Carbonate, Cationic Acrylamide Co-polymers, and Bentonite Microparticles. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 198-206.	3.7	19
42	Impact of organic nano-vesicles in soil: The case of sodium dodecyl sulphate/didodecyl dimethylammonium bromide. <i>Science of the Total Environment</i> , 2016, 547, 413-421.	8.0	19
43	Oil/water stratified flow in a horizontal pipe: Simulated and experimental studies using EIT. <i>Journal of Petroleum Science and Engineering</i> , 2019, 174, 1179-1193.	4.2	19
44	Heavy Metals Removal from Aqueous Solutions by Multiwall Carbon Nanotubes: Effect of MWCNTs Dispersion. <i>Nanomaterials</i> , 2021, 11, 2082.	4.1	19
45	Using Light Scattering to Screen Polyelectrolytes (PEL) Performance in Flocculation. <i>Polymers</i> , 2011, 3, 915-927.	4.5	18
46	Influence of the stabilizers on the toxicity of metallic nanomaterials in aquatic organisms and human cell lines. <i>Science of the Total Environment</i> , 2017, 607-608, 1264-1277.	8.0	18
47	Nanoparticle Characterization by PCS: The Analysis of Bimodal Distributions. <i>Particulate Science and Technology</i> , 2008, 26, 413-437.	2.1	16
48	Imaging Particulate Two-Phase Flow in Liquid Suspensions with Electric Impedance Tomography. <i>Particulate Science and Technology</i> , 2012, 30, 329-342.	2.1	16
49	Production of nanocellulose gels and films from invasive tree species. <i>International Journal of Biological Macromolecules</i> , 2021, 188, 1003-1011.	7.5	16
50	Correlating the Rheology of PVC-Based Pastes with Particle Characteristics. <i>Particulate Science and Technology</i> , 2005, 23, 361-375.	2.1	15
51	Flocculation of PCC filler in papermaking: Influence of the particle characteristics. <i>Chemical Engineering Research and Design</i> , 2008, 86, 1155-1160.	5.6	15
52	LABVIRTUAL – A platform for the teaching of chemical engineering: The use of interactive videos. <i>Computer Applications in Engineering Education</i> , 2018, 26, 1668-1676.	3.4	15
53	Immobilization of Heavy Metals in Contaminated Soils – Performance Assessment in Conditions Similar to a Real Scenario. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7950.	2.5	15
54	Improving Colloidal Stability of Sepiolite Suspensions: Effect of the Mechanical Disperser and Chemical Dispersant. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 779.	2.0	15

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55	Lignin Extraction from Waste Pine Sawdust Using a Biomass Derived Binary Solvent System. <i>Polymers</i> , 2021, 13, 1090.	4.5	15
56	PVC paste rheology: Study of process dependencies. <i>Journal of Applied Polymer Science</i> , 2009, 112, 2809-2821.	2.6	14
57	Application of Different Low-Reynolds $k-\epsilon$ Turbulence Models to Model the Flow of Concentrated Pulp Suspensions in Pipes. <i>Procedia Engineering</i> , 2015, 102, 1326-1335.	1.2	14
58	Modeling the Turbulent Flow of Pulp Suspensions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 9735-9742.	3.7	13
59	Cationization of <i>Eucalyptus</i> wood waste pulps with diverse lignin contents for potential application in colored wastewater treatment. <i>RSC Advances</i> , 2019, 9, 34814-34826.	3.6	13
60	Electrical Tomography: A Review of Configurations, and Application to Fibre Flow Suspensions Characterisation. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2355.	2.5	13
61	An experimental design methodology to evaluate the importance of different parameters on flocculation by polyelectrolytes. <i>Powder Technology</i> , 2013, 238, 2-13.	4.2	12
62	Flocculation by cationic polyelectrolytes: Relating efficiency with polyelectrolyte characteristics. <i>Journal of Applied Polymer Science</i> , 2010, 116, 3603-3612.	2.6	11
63	Oxidative stress and genotoxicity of an organic and an inorganic nanomaterial to <i>Eisenia andrei</i> : SDS/DDAB nano-vesicles and titanium silicon oxide. <i>Ecotoxicology and Environmental Safety</i> , 2017, 140, 198-205.	6.0	11
64	PRESSURE DROP FOR SOLID/LIQUID FLOW IN PIPES. <i>Particulate Science and Technology</i> , 1993, 11, 147-155.	2.1	10
65	Solution viscosity and flocculation characteristics of linear polymeric flocculants in various media. <i>Chemical Engineering Research and Design</i> , 2011, 89, 1037-1044.	5.6	10
66	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. <i>Journal of Computational Multiphase Flows</i> , 2015, 7, 241-257.	0.8	10
67	Validating dilute settling suspensions numerical data through MRI, UVP and EIT measurements. <i>Flow Measurement and Instrumentation</i> , 2016, 50, 35-48.	2.0	10
68	Effects of cobalt oxide nanomaterial on plants and soil invertebrates at different levels of biological organization. <i>Journal of Soils and Sediments</i> , 2019, 19, 3018-3034.	3.0	10
69	Revisiting the dissolution of cellulose in H <sub>3</sub> PO <sub>4</sub> (aq) through cryo-TEM, PTsNMR and DWS. <i>Carbohydrate Polymers</i> , 2021, 252, 117122.	10.2	10
70	INFLUENCE OF SHAPE ON PARTICLE SIZE ANALYSIS. <i>Particulate Science and Technology</i> , 1993, 11, 199-206.	2.1	9
71	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. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 16061-16071.	3.7	8
72	Characterization of Two Cactus Formulation-Based Flocculants and Investigation on Their Flocculating Ability for Cationic and Anionic Dyes Removal. <i>Polymers</i> , 2020, 12, 1964.	4.5	8

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73	Stabilization of Palygorskite Aqueous Suspensions Using Bio-Based and Synthetic Polyelectrolytes. <i>Polymers</i> , 2021, 13, 129.	4.5	8
74	Composite Films of Nanofibrillated Cellulose with Sepiolite: Effect of Preparation Strategy. <i>Coatings</i> , 2022, 12, 303.	2.6	8
75	From Particle Size Analysis (PSA 1970) to Particulate Systems Analysis (PSA 2003). <i>Chemical Engineering Research and Design</i> , 2004, 82, 1533-1540.	5.6	7
76	Rheology of Particulate Suspensions in Ceramic Industry. <i>Particulate Science and Technology</i> , 2005, 23, 145-157.	2.1	7
77	A more eco-friendly synthesis of flocculants to treat wastewaters using health-friendly solvents. <i>Colloid and Polymer Science</i> , 2017, 295, 2123-2131.	2.1	7
78	High-performance delignification of invasive tree species wood with ionic liquid and deep eutectic solvent for the production of cellulose-based polyelectrolytes. <i>RSC Advances</i> , 2022, 12, 3979-3989.	3.6	7
79	Modelling slurry mixing tanks. <i>Advanced Powder Technology</i> , 1994, 5, 1-14.	4.1	6
80	CFD simulation of a turbulent fiber suspension flow – a modified near-wall treatment. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2015, 9, 233-246.	3.1	6
81	Pre-treatment of industrial olive oil mill effluent using low dosage health-friendly cationic polyelectrolytes. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 6053-6060.	6.7	6
82	Flocculation Treatment of an Industrial Effluent: Performance Assessment by Laser Diffraction Spectroscopy. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 2628-2637.	3.7	6
83	Experimental and Simulated Studies of Oil/Water Fully Dispersed Flow in a Horizontal Pipe. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	1.5	6
84	Epoxy/steel fiber composites – A simple model to predict the fiber sedimentation. <i>Polymer Composites</i> , 2010, 31, 1378-1386.	4.6	5
85	Rheology of poly(vinyl chloride) plastisol: Effect of a particular nonionic cosurfactant. <i>Journal of Applied Polymer Science</i> , 2010, 115, 599-607.	2.6	5
86	Numerical simulation of turbulent pulp flow of concentrated suspensions: Influence of the non-Newtonian properties of the pulp. <i>Particulate Science and Technology</i> , 2016, 34, 442-452.	2.1	5
87	Experimental Study and Computational Fluid Dynamics Modeling of Pulp Suspensions Flow in a Pipe. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2017, 139, .	1.5	5
88	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. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 1454-1467.	3.7	5
89	Anionic Polyelectrolytes Synthesized in an Aromatic-Free-Oils Process for Application as Flocculants in Dairy-Industry-Effluent Treatment. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 16884-16896.	3.7	5
90	Data-Driven Modelling of the Complex Interaction between Flocculant Properties and Floc Size and Structure. <i>Processes</i> , 2020, 8, 349.	2.8	5

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91	The critical role of the dispersant agents in the preparation and ecotoxicity of nanomaterial suspensions. <i>Environmental Science and Pollution Research</i> , 2020, 27, 19845-19857.	5.3	5
92	Key-Parameters in Chemical Stabilization of Soils with Multiwall Carbon Nanotubes. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8754.	2.5	5
93	Valorisation of invasive plant species in the production of polyelectrolytes. <i>Industrial Crops and Products</i> , 2021, 167, 113476.	5.2	5
94	Extraction and Characterization of Microplastics from Portuguese Industrial Effluents. <i>Polymers</i> , 2022, 14, 2902.	4.5	5
95	Effect of Aging on Glaze Suspensions Rheology. <i>Journal of the American Ceramic Society</i> , 2007, 90, 1693-1702.	3.8	4
96	Evaluation of Polyelectrolyte Performance on PCC Flocculation Using the LDS Technique. <i>Particulate Science and Technology</i> , 2010, 28, 426-441.	2.1	4
97	Evaluation of the Performance of Dual Polyelectrolyte Systems on the Re-Flocculation Ability of Calcium Carbonate Aggregates in Turbulent Environment. <i>Polymers</i> , 2016, 8, 174.	4.5	4
98	A new approach to measuring solids concentration in mixing tanks. <i>Advanced Powder Technology</i> , 1994, 5, 15-24.	4.1	3
99	The Influence of Particle Size Distribution on the Performance of Ceramic Particulate Suspensions. <i>Particle and Particle Systems Characterization</i> , 2007, 24, 101-107.	2.3	3
100	Online experimentation: Experiment@Portugal 2012. , 2014, , .		3
101	Modelling of concentrated fibre suspension pipe flow with low-Reynolds-number $k\text{-}\mu$ turbulence models: new damping function. <i>Nordic Pulp and Paper Research Journal</i> , 2017, 32, 132-147.	0.7	3
102	Evaluation of Anionic Eco-Friendly Flocculants Prepared from Eucalyptus Pulps with Diverse Lignin Contents for Application in Effluent Treatment. <i>Polymers</i> , 2021, 13, 25.	4.5	3
103	Mass Calibration of the Coulter Counter Model ZM. <i>Particle and Particle Systems Characterization</i> , 1991, 8, 294-296.	2.3	2
104	MODELING SOLID-LIQUID HOMOGENEOUS TURBULENT FLOW OF NEUTRALLY BUOYANT PARTICLES USING THE MIXTURE MODEL: A STUDY OF LENGTH SCALES AND CLOSURE COEFFICIENTS. <i>Multiphase Science and Technology</i> , 2014, 26, 199-227.	0.5	2
105	Correlating Aggregates Structure with PEL Characteristics Using an Experimental Design Methodology. <i>Procedia Engineering</i> , 2015, 102, 1697-1706.	1.2	2
106	A comparative study of magnetic resonance imaging, electrical impedance tomography and ultrasonic doppler velocimetry for semi-dilute fibre flow suspension characterisation. <i>International Journal of Computational Methods and Experimental Measurements</i> , 2016, 4, 165-175.	0.2	2
107	On-line Tools to Teach Chemical Engineering: Exploring Synergies. <i>International Journal of Engineering Pedagogy</i> , 2013, 3, 26.	1.1	1
108	Talking about Teaching 2012. <i>International Journal of Engineering Pedagogy</i> , 2013, 3, 4.	1.1	1



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109	Evaluation of on-line simulation tools to teach Chemical Processes. , 2017, , .		1
110	Editorial: Advanced Processes for Wastewater Treatment and Water Reuse. Frontiers in Environmental Science, 2020, 8, .	3.3	1
111	Experimental Fluid Dynamics Study of a New Fractal Dual-Flow Tray. Industrial & Engineering Chemistry Research, 2020, 59, 12545-12556.	3.7	1
112	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
113	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
114	Experimental Study of the Rheology of Fibre Suspensions. Chemie-Ingenieur-Technik, 2001, 73, 746-746.	0.8	0
115	On-line labs to teach Chemical engineering: Synergies between complementary tools. , 2012, , .		0
116	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
117	An interactive video to demonstrate how to characterize nanoparticles. , 2013, , .		0
118	Interactive simulators: A contribution to link theory and applications in the teaching of chemical processes. , 2013, , .		0
119	Using video tools to teach nanoparticles characterization: Contents for a distance learning course. , 2013, , .		0
120	Multimedia Tools to Learn About Nanoparticles Characterization. International Journal of Online and Biomedical Engineering, 2013, 9, 77.	1.4	0
121	How nanomaterials will interfere with the toxicity of copper?. Toxicology Letters, 2014, 229, S202.	0.8	0
122	Ecotoxicological Evaluation Of Titanium Silicon Oxide Nanoparticules With Terrestrial Species. Toxicology Letters, 2014, 229, S201.	0.8	0
123	Derivation of Terrestrial Predicted No-Effect Concentration (PNEC) for Cobalt Oxide Nanomaterial. Advances in Science, Technology and Innovation, 2018, , 405-407.	0.4	0
124	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
125	Producing New Flocculants Using Health-Friendly Ingredients In Water Treatment. , 2018, , .		0
126	Oil/water flow in a horizontal pipe – dispersed flow regime. International Journal of Computational Methods and Experimental Measurements, 2020, 8, 123-134.	0.2	0



#	ARTICLE	IF	CITATIONS
127	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