Juan de Vicente

List of Publications by Year
in descending order

140 papers	5,541 citations	81743 39 h-index	91712 69 g-index
141 all docs	141 docs citations	141 times ranked	4351 citing authors

#	Article	IF	Citations
1	Magnetorheological fluids: a review. Soft Matter, 2011, 7, 3701.	1.2	900
2	Bio-inspired hydrogel composed of hyaluronic acid and alginate as a potential bioink for 3D bioprinting of articular cartilage engineering constructs. Acta Biomaterialia, 2020, 106, 114-123.	4.1	219
3	Soft lubrication of model hydrocolloids. Food Hydrocolloids, 2006, 20, 483-491.	5.6	166
4	The Frictional Properties of Newtonian Fluids in Rollingâ€“Sliding soft-EHL Contact. Tribology Letters, 2005, 20, 273-286.	1.2	154
5	Effect of particle shape in magnetorheology. Journal of Rheology, 2010, 54, 1337-1362.	1.3	139
6	Dynamic rheology of sphere- and rod-based magnetorheological fluids. Journal of Chemical Physics, 2009, 131, 194902.	1.2	121
7	Rheological study of the stabilization of magnetizable colloidal suspensions by addition of silica nanoparticles. Journal of Rheology, 2003, 47, 1093-1109.	1.3	108
8	Preparation of stable magnetorheological fluids based on extremely bimodal ironâ€“magnetite suspensions. Journal of Materials Research, 2005, 20, 874-881.	1.2	106
9	Stabilization of magnetorheological suspensions by polyacrylic acid polymers. Journal of Colloid and Interface Science, 2005, 284, 527-541.	5.0	105
10	Stability of Cobalt Ferrite Colloidal Particles. Effect of pH and Applied Magnetic Fields. Langmuir, 2000, 16, 7954-7961.	1.6	98
11	Permeability measurements in cobalt ferrite and carbonyl iron powders and suspensions. Journal of Magnetism and Magnetic Materials, 2002, 251, 100-108.	1.0	96
12	Lubrication properties of non-adsorbing polymer solutions in soft elastohydrodynamic (EHD) contacts. Tribology International, 2005, 38, 515-526.	3.0	91
13	Thermo-Sensitive Nanomaterials: Recent Advance in Synthesis and Biomedical Applications. Nanomaterials, 2018, 8, 935.	1.9	90
14	Shear flow behavior of confined magnetorheological fluids at low magnetic field strengths. Rheologica Acta, 2004, 44, 94-103.	1.1	84
15	Magnetorheology: a review. Soft Matter, 2020, 16, 9614-9642.	1.2	83
16	Synthesis and Characterization of Single-Domain Monocrystalline Magnetite Particles by Oxidative Aging of Fe(OH)₂. Journal of Physical Chemistry C, 2008, 112, 5843-5849.	1.5	79
17	Preparation and Sedimentation Behavior in Magnetic Fields of Magnetite-Covered Clay Particles. Langmuir, 2005, 21, 4410-4419.	1.6	78
18	On the use of magnetic nano and microparticles for lake restoration. Journal of Hazardous Materials, 2010, 181, 375-381.	6.5	73

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19	Nonlinear viscoelasticity and two-step yielding in magnetorheology: A colloidal gel approach to understand the effect of particle concentration. Journal of Rheology, 2012, 56, 1429-1448.	1.3	72
20	Clinical Trials of Thermosensitive Nanomaterials: An Overview. Nanomaterials, 2019, 9, 191.	1.9	72
21	Influence of a Magnetic Field on the Formation of Magnetite Particles via Two Precipitation Methods. Langmuir, 2007, 23, 3581-3589.	1.6	67
22	Magnetic microparticles as a new tool for lake restoration: A microcosm experiment for evaluating the impact on phosphorus fluxes and sedimentary phosphorus pools. Water Research, 2016, 89, 366-374.	5.3	65
23	Viscosity Ratio Effect in the Emulsion Lubrication of Soft EHL Contact. Journal of Tribology, 2006, 128, 795-800.	1.0	62
24	Squeeze flow magnetorheology. Journal of Rheology, 2011, 55, 753-779.	1.3	60
25	Stability of magnetizable colloidal suspensions by addition of oleic acid and silica nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 264, 75-81.	2.3	59
26	Steady shear magnetorheology of inverse ferrofluids. Journal of Rheology, 2011, 55, 127-152.	1.3	58
27	Investigating the effect of surfactants on lipase interfacial behaviour in the presence of bile salts. Food Hydrocolloids, 2011, 25, 809-816.	5.6	57
28	Physical Properties of Elongated Magnetic Particles: Magnetization and Friction Coefficient Anisotropies. ChemPhysChem, 2009, 10, 1165-1179.	1.0	56
29	Normal force study in concentrated carbonyl iron magnetorheological suspensions. Journal of Rheology, 2002, 46, 1295-1303.	1.3	52
30	Delaying lipid digestion through steric surfactant Pluronic F68: A novel in vitro approach. Food Research International, 2010, 43, 1629-1633.	2.9	50
31	Carbon Xerogel Microspheres and Monoliths from Resorcinolâ€"Formaldehyde Mixtures with Varying Dilution Ratios: Preparation, Surface Characteristics, and Electrochemical Double-Layer Capacitances. Langmuir, 2013, 29, 6166-6173.	1.6	50
32	Setting up High Gradient Magnetic Separation for combating eutrophication of inland waters. Journal of Hazardous Materials, 2011, 186, 2068-2074.	6.5	49
33	Effects of cooling temperature profiles on the monoglycerides oleogel properties: A rheo-microscopy study. Food Research International, 2019, 125, 108613.	2.9	49
34	Rolling and sliding friction in compliant, lubricated contact. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2006, 220, 55-63.	1.0	47
35	Controlling lipolysis through steric surfactants: New insights on the controlled degradation of submicron emulsions after oral and intravenous administration. International Journal of Pharmaceutics, 2012, 423, 161-166.	2.6	47
36	Oxidation of ferrous hydroxides with nitrate: A versatile method for the preparation of magnetic colloidal particles. Journal of Colloid and Interface Science, 2013, 392, 50-56.	5.0	44

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37	Thermal transport in sheared electro- and magnetorheological fluids. Physics of Fluids, 2006, 18, 023301.	1.6	43
38	A comparative study of the tribological performance of ferrofluids and magnetorheological fluids within steelâ€“steel point contacts. Tribology International, 2014, 78, 125-133.	3.0	43
39	A structural viscosity model for magnetorheology. Applied Physics Letters, 2012, 101, .	1.5	40
40	Tribological behavior of ionic liquid-based magnetorheological fluids in steel and polymeric point contacts. Tribology International, 2015, 81, 309-320.	3.0	39
41	Controlling friction using magnetic nanofluids. Soft Matter, 2011, 7, 880-883.	1.2	38
42	Thin-Film Rheology and Tribology of Magnetorheological Fluids in Isoviscous-EHL Contacts. Tribology Letters, 2012, 47, 149-162.	1.2	38
43	Two-step yielding in magnetorheology. Journal of Rheology, 2014, 58, 1507-1534.	1.3	37
44	Boundary lubrication of magnetorheological fluids in PTFE/steel point contacts. Wear, 2012, 296, 484-490.	1.5	34
45	Testing the mean magnetization approximation, dimensionless and scaling numbers in magnetorheology. Soft Matter, 2016, 12, 1468-1476.	1.2	34
46	Soft lubrication characteristics of microparticulated whey proteins used as fat replacers in dairy systems. Journal of Food Engineering, 2019, 245, 157-165.	2.7	34
47	A slender-body micromechanical model for viscoelasticity of magnetic colloids: Comparison with preliminary experimental data. Journal of Colloid and Interface Science, 2005, 282, 193-201.	5.0	33
48	Evidence of direct crystal growth and presence of hollow microspheres in magnetite particles prepared by oxidation of Fe(OH)2. Journal of Colloid and Interface Science, 2008, 318, 520-524.	5.0	33
49	Effect of humic acid adsorption on the rheological properties of sodium montmorillonite suspensions. Journal of Rheology, 2001, 45, 1159-1172.	1.3	32
50	Surface rheology of sorbitan tristearate and Î²-lactoglobulin: Shear and dilatational behavior. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 713-722.	1.0	32
51	The influence of pH on manganese removal by magnetic microparticles in solution. Water Research, 2014, 53, 110-122.	5.3	32
52	A microcosm experiment to determine the consequences of magnetic microparticles application on water quality and sediment phosphorus pools. Science of the Total Environment, 2017, 579, 245-253.	3.9	32
53	Development of a Biomimetic Hydrogel Based on Predifferentiated Mesenchymal Stemâ€Cellâ€Derived ECM for Cartilage Tissue Engineering. Advanced Healthcare Materials, 2021, 10, e2001847.	3.9	32
54	Chemical interferences when using high gradient magnetic separation for phosphate removal: Consequences for lake restoration. Journal of Hazardous Materials, 2011, 192, 995-1001.	6.5	31

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55	Small-Amplitude Oscillatory Shear Magnetorheology of Inverse Ferrofluids. Langmuir, 2010, 26, 9334-9341.	1.6	30
56	On the validity of continuous media theory for plastic materials in magnetorheological fluids under slow compression. Rheologica Acta, 2012, 51, 595-602.	1.1	30
57	Stability of Dispersions of Colloidal Nickel Ferrite Spheres. Journal of Colloid and Interface Science, 2001, 242, 306-313.	5.0	29
58	Model magnetorheology: A direct comparative study between theories, particle-level simulations and experiments, in steady and dynamic oscillatory shear. Journal of Rheology, 2016, 60, 61-74.	1.3	29
59	Magnetorheology of dimorphic magnetorheological fluids based on nanofibers. Smart Materials and Structures, 2014, 23, 125013.	1.8	26
60	Creep and recovery of magnetorheological fluids: Experiments and simulations. Journal of Rheology, 2014, 58, 1725-1750.	1.3	26
61	Soft Elasto-Hydrodynamic Lubrication. Tribology Letters, 2010, 39, 109-114.	1.2	25
62	Bulk and interfacial viscoelasticity in concentrated emulsions: The role of the surfactant. Food Hydrocolloids, 2011, 25, 677-686.	5.6	25
63	Thermoresponsive polymer-based magneto-rheological (MR) composites as a bridge between MR fluids and MR elastomers. Soft Matter, 2013, 9, 11451.	1.2	25
64	Simulations of polydisperse magnetorheological fluids: A structural and kinetic investigation. Journal of Rheology, 2015, 59, 475-498.	1.3	25
65	Magnetorheology of Carbonyl Iron Dispersions in 1-Alkyl-3-methylimidazolium Ionic Liquids. Industrial & Engineering Chemistry Research, 2015, 54, 9956-9963.	1.8	25
66	Determining major factors controlling phosphorus removal by promising adsorbents used for lake restoration: A linear mixed model approach. Water Research, 2018, 141, 377-386.	5.3	25
67	Brownian dynamics simulations in magnetorheology and comparison with experiments. Soft Matter, 2013, 9, 6970.	1.2	24
68	Aging, rejuvenation, and thixotropy in yielding magnetorheological fluids. Rheologica Acta, 2013, 52, 467-483.	1.1	22
69	The effect of polymeric surfactants on the rheological properties of nanoemulsions. Colloid and Polymer Science, 2013, 291, 709-716.	1.0	22
70	Synthesis and characterization of magnetic chitosan microspheres as low-density and low-biotoxicity adsorbents for lake restoration. Chemosphere, 2017, 171, 571-579.	4.2	22
71	Yielding behavior of model magnetorheological fluids. Soft Matter, 2019, 15, 3330-3342.	1.2	22
72	Effect of friction between particles in the dynamic response of model magnetic structures. Journal of Colloid and Interface Science, 2007, 316, 867-876.	5.0	20

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73	Preparation and characterization of magnetorheological fluids by dispersion of carbonyl iron microparticles in PAO/1-octanol. Smart Materials and Structures, 2016, 25, 015023.	1.8	20
74	Thermogelling magnetorheological fluids. Smart Materials and Structures, 2014, 23, 025012.	1.8	19
75	Extensional rheometry of magnetic dispersions. Journal of Rheology, 2015, 59, 193-209.	1.3	19
76	Towards a universal master curve in magnetorheology. Smart Materials and Structures, 2017, 26, 054001.	1.8	19
77	Electrokinetic and viscoelastic properties of magnetorheological suspensions of cobalt ferrite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 195, 181-188.	2.3	18
78	Electrical double layer and rheological properties of yttria-stabilized zirconia suspensions in solutions of high molecular weight polyacrylic acid polymers. Rheologica Acta, 2004, 43, 645-656.	1.1	18
79	Colloidal characterization of micron-sized rod-like magnetite particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 319, 122-129.	2.3	18
80	A method for the estimation of the film thickness and plate tilt angle in thin film misaligned plateâ€“plate rheometry. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 1419-1421.	1.0	18
81	Aggregation kinetics of carbonyl iron based magnetic suspensions in 2D. Soft Matter, 2017, 13, 2677-2685.	1.2	18
82	Ferrofluid Lubrication of Compliant Polymeric Contacts: Effect of Non-homogeneous Magnetic Fields. Tribology Letters, 2014, 56, 281-292.	1.2	17
83	Simulations of model magnetorheological fluids in squeeze flow mode. Journal of Rheology, 2017, 61, 871-881.	1.3	17
84	A micromechanical model for magnetorheological fluids under slow compression. Rheologica Acta, 2016, 55, 215-221.	1.1	16
85	Rheological behavior of magnetic colloids in the borderline between ferrofluids and magnetorheological fluids. Journal of Rheology, 2019, 63, 547-558.	1.3	16
86	Average particle magnetization as an experimental scaling parameter for the yield stress of dilute magnetorheological fluids. Journal Physics D: Applied Physics, 2011, 44, 425002.	1.3	15
87	Synthesis, surface characteristics, and electrochemical capacitance of Cu-doped carbon xerogel microspheres. Carbon, 2013, 55, 260-268.	5.4	15
88	Effect of particle aspect ratio in magnetorheology. Smart Materials and Structures, 2015, 24, 125005.	1.8	15
89	On the yield stress in magnetorheological fluids: A direct comparison between 3D simulations and experiments. Composites Part B: Engineering, 2019, 160, 626-631.	5.9	15
90	Validation of the 1,<scp>4â€butanediol</scp>thermoplastic polyurethane as a novel material for<scp>3D</scp>bioprinting applications. Bioengineering and Translational Medicine, 2021, 6, e10192.	3.9	15

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91	Pore geometry influences growth and cell adhesion of infrapatellar mesenchymal stem cells in biofabricated 3D thermoplastic scaffolds useful for cartilage tissue engineering. Materials Science and Engineering C, 2021, 122, 111933.	3.8	15
92	Synthesis of Ni ferrite and Co ferrite rodlike particles by superposition of a constant magnetic field. Journal of Materials Research, 2008, 23, 1764-1775.	1.2	14
93	On the nonparallelism effect in thin film plateâ€"plate rheometry. Journal of Rheology, 2011, 55, 981-986.	1.3	14
94	Enhancing magnetorheological effect using bimodal suspensions in the single-multidomain limit. Smart Materials and Structures, 2018, 27, 07LT01.	1.8	14
95	Evaluating the effect of CFH-12Â® and PhoslockÂ® on phosphorus dynamics during anoxia and resuspension in shallow eutrophic lakes. Environmental Pollution, 2021, 269, 116093.	3.7	13
96	EFFECT OF MAGNETIC HYSTERESIS OF THE SOLID PHASE ON THE RHEOLOGICAL PROPERTIES OF MR FLUIDS. International Journal of Modern Physics B, 2002, 16, 2576-2582.	1.0	12
97	Particle roughness in magnetorheology: effect on the strength of the field-induced structures. Journal Physics D: Applied Physics, 2015, 48, 015309.	1.3	12
98	Start-up rheometry of highly polydisperse magnetorheological fluids: experiments and simulations. Rheologica Acta, 2016, 55, 245-256.	1.1	12
99	Isoviscous elastohydrodynamic lubrication of inelastic Non-Newtonian fluids. Tribology International, 2019, 140, 105707.	3.0	12
100	Synthesis and rheological properties of 3D structured self-healing magnetic hydrogels. Polymer, 2021, 218, 123489.	1.8	12
101	On the effect of particle porosity and roughness in magnetorheology. Journal of Applied Physics, 2011, 110, .	1.1	11
102	Measuring the yield stress in magnetorheological fluids using ultrasounds. Applied Physics Letters, 2013, 102, 081907.	1.5	11
103	In vitro duodenal lipolysis of lipid-based drug delivery systems studied by HPLCâ€"UV and HPLCâ€"MS. International Journal of Pharmaceutics, 2014, 465, 396-404.	2.6	11
104	Faceted particles: An approach for the enhancement of the elasticity and the yield-stress of magnetorheological fluids. Applied Physics Letters, 2016, 108, 211904.	1.5	11
105	Double-gap plateâ€"plate magnetorheology. Journal of Rheology, 2018, 62, 1485-1494.	1.3	11
106	Rough and Hollow Spherical Magnetite Microparticles: Revealing the Morphology, Internal Structure, and Growth Mechanism. Journal of Physical Chemistry C, 2013, 117, 5397-5406.	1.5	10
107	Preparation, characterization and in vivo evaluation of nanoemulsions for the controlled delivery of the antiobesity agent N-oleoylethanolamine. Nanomedicine, 2014, 9, 2761-2772.	1.7	10
108	Design of smart lubricants using the inverse ferrofluid approach. Tribology International, 2022, 166, 107346.	3.0	10

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109	Control of surface morphology and internal structure in magnetite microparticles: from smooth single crystals to rough polycrystals. CrystEngComm, 2013, 15, 5236.	1.3	8
110	Tribological Behavior of Glycerol/Water-Based Magnetorheological Fluids in PMMA Point Contacts. Frontiers in Materials, 2019, 6, .	1.2	8
111	Magnetorheology of Bimodal Fluids in the Singleâ€"Multidomain Limit. Industrial & Engineering Chemistry Research, 2018, 57, 13427-13436.	1.8	7
112	Magnetorheology of exotic magnetic mesostructures generated under triaxial unsteady magnetic fields. Smart Materials and Structures, 2021, 30, 014005.	1.8	7
113	Importance of the rheological properties of resorcinolâ€"formaldehyde sols in the preparation of Cu-doped organic and carbon xerogel microspheres. Carbon, 2013, 53, 402-405.	5.4	6
114	Colloidal Stability and Magnetic Field-Induced Ordering of Magnetorheological Fluids Studied with a Quartz Crystal Microbalance. Sensors, 2015, 15, 30443-30456.	2.1	6
115	Facile synthesis of magnetic agarose microfibers by directed self-assembly in W/O emulsions. Polymer, 2016, 93, 61-64.	1.8	6
116	Fabrication of strong magnetic micron-sized supraparticles with anisotropic magnetic properties for magnetorheology. Soft Matter, 2021, 17, 3733-3744.	1.2	6
117	Enhancing magnetorheology with precession magnetic fields. Journal of Rheology, 2022, 66, 67-78.	1.3	6
118	Continuous media theory for MR fluids in non-shearing flows. Journal of Physics: Conference Series, 2013, 412, 012057.	0.3	5
119	On the importance of carrier fluid viscosity and particleâ€"wall interactions in magnetic-guided assembly of quasi-2D systems. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	5
120	Ternary solid-ferrofluid-liquid magnetorheological fluids. Smart Materials and Structures, 2018, 27, 075017.	1.8	5
121	Calcium-induced skim milk gels: Effect of milk powder concentration and pH on tribo-rheological characteristics and gel physico-chemical properties. Food Hydrocolloids, 2022, 124, 107335.	5.6	5
122	Using ultrasounds for the estimation of the misalignment in plateâ€"plate torsional rheometry. Journal Physics D: Applied Physics, 2013, 46, 205301.	1.3	4
123	Magnetorheology of hybrid colloids obtained by spin-coating and classical rheometry. Smart Materials and Structures, 2016, 25, 075036.	1.8	4
124	Effect of Confinement on the Aggregation Kinetics of Dilute Magnetorheological Fluids. Smart Materials and Structures, 2017, 26, 105031.	1.8	4
125	Describing magnetorheology under a colloidal glass approach. Physical Review E, 2017, 95, 052601.	0.8	4
126	Magnetorheology in saturating fields. Physical Review E, 2019, 99, 062604.	0.8	4

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127	On the yielding behaviour in magnetorheology using ultrasounds, shear and normal stresses, and optical microscopy. Journal Physics D: Applied Physics, 2015, 48, 465503.	1.3	3
128	Effect of surface roughness on the magnetic interaction between micron-sized ferromagnetic particles: Finite element method calculations. Journal of Intelligent Material Systems and Structures, 2017, 28, 992-998.	1.4	3
129	On the importance of interchain interaction and rotational contribution to the computation of the yield stress in magnetorheology. Smart Materials and Structures, 2019, 28, 08LT01.	1.8	3
130	Soft lubrication of cornstarch-based shear-thickening fluids. Smart Materials and Structures, 2019, 28, 085044.	1.8	2
131	Living magnetorheological composites: from the synthesis to the in vitro characterization. Smart Materials and Structures, 2021, 30, 065015.	1.8	2
132	DEM and FEM simulations in magnetorheology: aggregation kinetics and yield stress. , 2019, , 19-38.		2
133	Suspensions of repulsive colloidal particles near the glass transition: Time and frequency domain descriptions. Physical Review E, 2010, 82, 021406.	0.8	1
134	Brownian dynamic simulations and experiments of MR fluids. Journal of Physics: Conference Series, 2013, 412, 012056.	0.3	1
135	Enhancing magnetorheology through the directed self-assembly under toggled magnetic fields in saturation. Smart Materials and Structures, 2021, 30, 105029.	1.8	1
136	Soft EHL Lubrication of Complex Multiphase Fluids. , 2005, , 589.		0
137	Simulation of field-induced structures in magnetic fluids. AIP Conference Proceedings, 2005, , .	0.3	0
138	Second International Soft Matter Conference 2010 - ISMC2010. Applied Rheology, 2011, 21, 122-124.	3.5	0
139	CHAPTER 6. Thin-film Rheology and Tribology of Magnetorheological Fluids. RSC Smart Materials, 2013, , 142-155.	0.1	0
140	Physics of Magnetorheological Fluids. , 2022, , 215-223.		0