Roque Hidalgo-Alvarez

List of Publications by Citations

221 papers	6,367 citations	38 h-index	66 g-index
232 ext. papers	6,784 ext. citations	4.9 avg, IF	5.72 L-index

#	Paper	IF	Citations
221	Magnetorheological fluids: a review. *Soft Matter*, **2011**, 7, 3701	3.6	727
220	Gel swelling theories: the classical formalism and recent approaches. *Soft Matter*, **2011**, 7, 10536	3.6	243
219	Electrokinetic properties, colloidal stability and aggregation kinetics of polymer colloids. *Advances in Colloid and Interface Science*, **1996**, 67, 1-118	14.3	176
218	Overcharging in colloids: beyond the Poisson-Boltzmann approach. *ChemPhysChem*, **2003**, 4, 234-48	3.2	167
217	Cationic polymer nanoparticles and nanogels: from synthesis to biotechnological applications. *Chemical Reviews*, **2014**, 114, 367-428	68.1	136
216	Effect of particle shape in magnetorheology. *Journal of Rheology*, **2010**, 54, 1337-1362	4.1	111
215	Size and stability of liposomes: a possible role of hydration and osmotic forces. *European Physical Journal E*, **2006**, 20, 401-8	1.5	102
214	Dynamic rheology of sphere- and rod-based magnetorheological fluids. *Journal of Chemical Physics*, **2009**, 131, 194902	3.9	97
213	Stability of binary colloids: kinetic and structural aspects of heteroaggregation processes. *Soft Matter*, **2006**, 2, 1025-1042	3.6	95
212	Colloidal Stability of Polymer Colloids with Different Interfacial Properties: Mechanisms. *Journal of Colloid and Interface Science*, **1996**, 184, 259-67	9.3	94
211	Measurement of Absolute Coagulation Rate Constants for Colloidal Particles: Comparison of Single and Multiparticle Light Scattering Techniques. *Journal of Colloid and Interface Science*, **1997**, 192, 463-70	9.3	87
210	Preparation and characterization of extruded magnetoliposomes. *International Journal of Pharmaceutics*, **2008**, 347, 156-62	6.5	76
209	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	3.8	70
208	Contact angle measurements on two (wood and stone) non-ideal surfaces. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2002**, 206, 485-495	5.1	65
207	Colloidal stability of protein-polymer systems: A possible explanation by hydration forces. *Physical Review E*, **1997**, 55, 4522-4530	2.4	64
206	Carboxylated Latexes for Covalent Coupling Antibodies, I. *Journal of Colloid and Interface Science*, **1995**, 176, 232-239	9.3	60
205	Influence of a magnetic field on the formation of magnetite particles via two precipitation methods. *Langmuir*, **2007**, 23, 3581-9	4	59

204	A comparative study between the adsorption of IgY and IgG on latex particles. *Journal of Biomaterials Science, Polymer Edition*, **2000**, 11, 657-73	3.5	59
203	Simulation of electric double layers with multivalent counterions: ion size effect. *Journal of Chemical Physics*, **2004**, 121, 8618-26	3.9	58
202	A probabilistic aggregation kernel for the computer-simulated transition from DLCA to RLCA. *Europhysics Letters*, **2001**, 53, 797-803	1.6	57
201	Probing interaction forces in colloidal monolayers: Inversion of structural data. *Journal of Chemical Physics*, **2001**, 115, 10897-10902	3.9	56
200	On the adsorption of IgG onto polystyrene particles: electrophoretic mobility and critical coagulation concentration. *Colloid and Polymer Science*, **1992**, 270, 574-583	2.4	56
199	Two-dimensional aggregation of polystyrene latex particles. *Physical Review E*, **1993**, 47, 2663-2668	2.4	55
198	Squeeze flow magnetorheology. *Journal of Rheology*, **2011**, 55, 753-779	4.1	53
197	Interaction potentials, structural ordering and effective charges in dispersions of charged colloidal particles. *Advances in Colloid and Interface Science*, **2002**, 95, 295-315	14.3	53
196	On the conversion of experimental electrokinetic data into double layer characteristics in solid-liquid interfaces. *Advances in Colloid and Interface Science*, **1991**, 34, 217-341	14.3	53
195	The role played by hydration forces in the stability of protein-coated particles: non-classical DLVO behaviour. *Colloids and Surfaces B: Biointerfaces*, **1999**, 14, 3-17	6	49
194	Looking into overcharging in model colloids through electrophoresis: Asymmetric electrolytes. *Journal of Chemical Physics*, **2003**, 118, 4183-4189	3.9	48
193	Steady shear magnetorheology of inverse ferrofluids. *Journal of Rheology*, **2011**, 55, 127-152	4.1	47
192	Physical properties of elongated magnetic particles: magnetization and friction coefficient anisotropies. *ChemPhysChem*, **2009**, 10, 1165-79	3.2	47
191	Comparison of the interfacial activity between homogeneous and Janus gold nanoparticles by pendant drop tensiometry. *Langmuir*, **2014**, 30, 1799-804	4	46
190	Colloidal stability of IgG- and IgY-coated latex microspheres. *Colloids and Surfaces B: Biointerfaces*, **2001**, 20, 165-175	6	46
189	A Light Scattering Study of the Transition Region between Diffusion- and Reaction-Limited Cluster Aggregation. *Journal of Colloid and Interface Science*, **2001**, 240, 90-96	9.3	46
188	Effect of the particle surface charge density on the colloidal aggregation mechanism. *Physical Review E*, **1996**, 53, 4981-4989	2.4	44
187	Ion size correlations and charge reversal in real colloids. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2005**, 267, 24-30	5.1	43

186	Surface activity of Janus particles adsorbed at fluid-fluid interfaces: Theoretical and experimental aspects. *Advances in Colloid and Interface Science*, **2016**, 233, 240-254	14.3	42
185	Colloidal Interaction at the Air-Liquid Interface. *Journal of Colloid and Interface Science*, **2000**, 232, 303-310	9.3	40
184	The hydrophobic effect as a driving force for charge inversion in colloids. *Soft Matter*, **2009**, 5, 1350	3.6	38
183	Simulation of electric double layers undergoing charge inversion: mixtures of mono- and multivalent ions. *Langmuir*, **2005**, 21, 9231-7	4	38
182	F(ab)2-Coated Polymer Carriers: Electrokinetic Behavior and Colloidal Stability. *Langmuir*, **1996**, 12, 3211-3220	4	38
181	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	9.3	37
180	Electrostatic heteroaggregation regimes in colloidal suspensions. *Advances in Colloid and Interface Science*, **2009**, 147-148, 186-204	14.3	37
179	Constant bond breakup probability model for reversible aggregation processes. *Physical Review E*, **2002**, 65, 031405	2.4	37
178	Sequential adsorption of F(ab')(2) and BSA on negatively and positively charged polystyrene latexes. *Biotechnology and Bioengineering*, **1995**, 47, 633-9	4.9	37
177	Controlling friction using magnetic nanofluids. *Soft Matter*, **2011**, 7, 880-883	3.6	36
176	Spontaneous formation of mesostructures in colloidal monolayers trapped at the air-water interface: a simple explanation. *Langmuir*, **2004**, 20, 6977-80	4	36
175	Comparative Studies on Physically Adsorbed and Chemically Bound IgG to Carboxylated Latexes, II. *Journal of Colloid and Interface Science*, **1995**, 176, 240-247	9.3	36
174	Amino-functionalized latex particles obtained by a multistep method: Development of a new immunoreagent. *Journal of Polymer Science Part A*, **2003**, 41, 2404-2411	2.5	35
173	On the Calculation of Electrokinetic Potential and Hamaker Constant of Model Colloids. *Journal of Colloid and Interface Science*, **1994**, 162, 257-260	9.3	35
172	Effect of anomalous surface conductance on potential determination of positively charged polystyrene microspheres. *Journal of Colloid and Interface Science*, **1992**, 149, 23-26	9.3	35
171	On the effect of Ca2+ and La3+ on the colloidal stability of liposomes. *Langmuir*, **2005**, 21, 10968-75	4	34
170	Two-step yielding in magnetorheology. *Journal of Rheology*, **2014**, 58, 1507-1534	4.1	33
169	Charge reversal in real colloids: Experiments, theory and simulations. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2008**, 319, 103-108	5.1	33

168	Probing charge inversion in model colloids: electrolyte mixtures of multi- and monovalent counterions. *Journal of Physics Condensed Matter*, **2003**, 15, S3475-S3483	1.8	33
167	Sequential Adsorption of Triton X-100 and Sodium Dodecyl Sulfate onto Positively and Negatively Charged Polystyrene Latexes. *Journal of Colloid and Interface Science*, **2001**, 239, 568-576	9.3	33
166	Role of Long-Range Repulsive Interactions in Two-Dimensional Colloidal Aggregation: Experiments and Simulations. *Langmuir*, **2002**, 18, 9183-9191	4	33
165	Multiple contact kernel for diffusionlike aggregation. *Physical Review E*, **2000**, 62, 8335-43	2.4	33
164	Characterization of Immunoglobulin G Bound to Latex Particles Using Surface Plasmon Resonance and Electrophoretic Mobility. *Journal of Colloid and Interface Science*, **1998**, 204, 300-11	9.3	32
163	Electric double layers with electrolyte mixtures: integral equations theories and simulations. *Journal of Physical Chemistry B*, **2006**, 110, 1326-31	3.4	32
162	Electrophoretic Mobility and Primitive Models: Surface Charge Density Effect. *Journal of Physical Chemistry B*, **2002**, 106, 6881-6886	3.4	32
161	Effect of surface charge on colloidal charge reversal. *Journal of Physical Chemistry B*, **2009**, 113, 6834-9	3.4	31
160	Particle enhanced immunoaggregation of F(ab')2 molecules. *Journal of Immunological Methods*, **1996**, 190, 29-38	2.5	31
159	Interfacial Activity and Contact Angle of Homogeneous, Functionalized, and Janus Nanoparticles at the Water/Decane Interface. *Langmuir*, **2015**, 31, 8818-23	4	30
158	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, 520-4	9.3	30
157	Dynamic scaling concepts applied to numerical solutions of Smoluchowski rate equation. *Journal of Chemical Physics*, **1999**, 111, 7657-7667	3.9	30
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154	Testing the mean magnetization approximation, dimensionless and scaling numbers in magnetorheology. *Soft Matter*, **2016**, 12, 1468-76	3.6	28
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151	Electrokinetic Behavior of Polystyrene Latexes with Different Surface Groups: Effect of Heat Treatment. *Journal of Colloid and Interface Science*, **1996**, 177, 372-379	9.3	28

150	Particles adsorbed at various non-aqueous liquid-liquid interfaces. *Advances in Colloid and Interface Science*, **2017**, 247, 208-222	14.3	27
149	Stability of highly charged particles: bitumen-in-water dispersions. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2003**, 222, 233-251	5.1	27
148	Specific cation adsorption on protein-covered particles and its influence on colloidal stability. *Colloids and Surfaces B: Biointerfaces*, **2001**, 21, 125-135	6	27
147	Comparative Study on the Colloidal Stability Mechanisms of Sulfonate Latexes. *Langmuir*, **1997**, 13, 3938-3943	4	26
146	On the validity of continuous media theory for plastic materials in magnetorheological fluids under slow compression. *Rheologica Acta*, **2012**, 51, 595-602	2.3	25
145	Concentration effects on two- and three-dimensional colloidal aggregation. *Physica A: Statistical Mechanics and Its Applications*, **2002**, 314, 235-245	3.3	25
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143	Two-dimensional colloidal aggregation: concentration effects. *Journal of Colloid and Interface Science*, **2002**, 246, 227-34	9.3	24
142	Renormalization processes in the charge density of polymer colloids. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **1999**, 159, 239-252	5.1	24
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138	Brownian dynamics simulations in magnetorheology and comparison with experiments. *Soft Matter* , **2013**, 9, 6970	3.6	22
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134	Coadsorption of IgG and BSA onto sulfonated polystyrene latex: I. Sequential and competitive coadsorption isotherms. *Journal of Biomaterials Science, Polymer Edition*, **1995**, 7, 231-40	3.5	21
133	Imaging techniques applied to characterize bitumen and bituminous emulsions. *Advances in Colloid and Interface Science*, **2008**, 136, 93-108	14.3	20

132	Study on the Colloidal Stability Mechanisms of Acetal-Functionalized Latexes. *Langmuir*, **1998**, 14, 6377-6384	4	20
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127	Covalent Binding of Proteins to Acetal-Functionalized Latexes. II. Colloidal Stability and Immunoreactivity. *Journal of Colloid and Interface Science*, **1998**, 201, 139-145	9.3	19
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125	Testing one component plasma models on colloidal overcharging phenomena. *Journal of Chemical Physics*, **2006**, 125, 144906	3.9	18
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111	Primitive models and electrophoresis: an experimental study. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2003**, 222, 155-164	5.1	17
110	COLLOID STABILITY OF POSITIVELY CHARGED MONODISPERSE LATEX IN ALCOHOL-WATER MKTURES. *Journal of Dispersion Science and Technology*, **1994**, 15, 1-19	1.5	17
109	A method for the estimation of the film thickness and plate tilt angle in thin film misaligned plate–plate rheometry. *Journal of Non-Newtonian Fluid Mechanics*, **2010**, 165, 1419-1421	2.7	16
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99	The adsorption of F(ab')2 on positively and negatively charged polystyrene beads. *Journal of Biomaterials Science, Polymer Edition*, **1994**, 6, 269-79	3.5	15
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94	Interplay between hydrodynamic and direct interactions using liposomes. *Journal of Chemical Physics*, **2003**, 119, 628-634	3.9	14
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86	Comparative study of theories of conversion of electrophoretic mobility into ζpotential. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2001**, 192, 215-226	5.1	13
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