Gerardo Odriozola

List of Publications by Year
in descending order

80	1,308	394286 19	454834 30
papers	citations	h-index	g-index

82	82	82	1084
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Revisiting the phase diagram of hard ellipsoids. Journal of Chemical Physics, 2012, 136, 134505.	1.2	60
2	A probabilistic aggregation kernel for the computer-simulated transition from DLCA to RLCA. Europhysics Letters, 2001, 53, 797-803.	0.7	58
3	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.	5.0	49
4	Phase diagram of two-dimensional hard ellipses. Journal of Chemical Physics, 2014, 140, 204502.	1.2	45
5	Entropy driven key-lock assembly. Journal of Chemical Physics, 2008, 129, 111101.	1.2	43
6	Brownian dynamics simulations of Laponite colloid suspensions. Physical Review E, 2004, 70, 021405.	0.8	42
7	Further details on the phase diagram of hard ellipsoids of revolution. Journal of Chemical Physics, 2013, 138, 064501.	1.2	41
8	Constant bond breakup probability model for reversible aggregation processes. Physical Review E, 2002, 65, 031405.	0.8	40
9	Multiple contact kernel for diffusionlike aggregation. Physical Review E, 2000, 62, 8335-8343.	0.8	39
10	Simple effective rule to estimate the jamming packing fraction of polydisperse hard spheres. Physical Review E, 2014, 89, 040302.	0.8	34
11	Dynamic scaling concepts applied to numerical solutions of Smoluchowskiâ€™s rate equation. Journal of Chemical Physics, 1999, 111, 7657-7667.	1.2	31
12	Electrolyte distribution around two like-charged rods: Their effective attractive interaction and angular dependent charge reversal. Journal of Chemical Physics, 2006, 124, 134902.	1.2	31
13	Competition between excluded-volume and electrostatic interactions for nanogel swelling: effects of the counterion valence and nanogel charge. Physical Chemistry Chemical Physics, 2017, 19, 6838-6848.	1.3	31
14	Equilibrium equation of state of a hard sphere binary mixture at very large densities using replica exchange Monte Carlo simulations. Journal of Chemical Physics, 2011, 134, 054504.	1.2	30
15	Statistical Mechanics Approach to Lock-Key Supramolecular Chemistry Interactions. Physical Review Letters, 2013, 110, 105701.	2.9	30
16	Na-Montmorillonite Hydrates under Basin Conditions:Â Hybrid Monte Carlo and Molecular Dynamics Simulations. Langmuir, 2004, 20, 2010-2016.	1.6	29
17	The DLCA-RLCA transition arising in 2D-aggregation: simulations and mean field theory. European Physical Journal E, 2001, 5, 471-480.	0.7	25
18	Replica exchange Monte Carlo applied to hard spheres. Journal of Chemical Physics, 2009, 131, 144107.	1.2	24

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19	Conformation change of an isotactic poly (N-isopropylacrylamide) membrane: Molecular dynamics. Journal of Chemical Physics, 2017, 146, 194905.	1.2	22
20	Effect of Confinement on the Interaction between Two Like-Charged Rods. Physical Review Letters, 2006, 97, 018102.	2.9	20
21	Colloidal aggregation with sedimentation: concentration effects. European Physical Journal E, 2004, 13, 165-178.	0.7	19
22	Effect of Temperature on the Cononsolvency of Poly(N-isopropylacrylamide) (PNIPAM) in Aqueous 1-Propanol. ACS Applied Polymer Materials, 2019, 1, 2961-2972.	2.0	19
23	Towards understanding the empty liquid of colloidal platelets: vapourâ€“liquid phase coexistence of square-well oblate ellipsoids. Soft Matter, 2013, 9, 5277.	1.2	18
24	Constant-force approach to discontinuous potentials. Journal of Chemical Physics, 2013, 138, 214105.	1.2	18
25	A heuristic rule for classification of classical fluids: Master curves for Mie, Yukawa and square-well potentials. Chemical Physics Letters, 2015, 631-632, 26-29.	1.2	18
26	Simulated Reversible Aggregation Processes for Different Interparticle Potentials: The Cluster Aging Phenomenon. Journal of Physical Chemistry B, 2003, 107, 2180-2188.	1.2	17
27	Irreversible versus reversible aggregation: Mean field theory and experiments. Journal of Chemical Physics, 2004, 121, 5468-5481.	1.2	17
28	Na-montmorillonite hydrates under ethane rich reservoirs: NPzzT and Î¼PzzT simulations. Journal of Chemical Physics, 2004, 121, 4266-4275.	1.2	17
29	Linking Phase Behavior and Reversible Colloidal Aggregation at Low Concentrations:Â Simulations and Stochastic Mean Field Theory. Journal of Physical Chemistry B, 2007, 111, 5564-5572.	1.2	17
30	Corresponding states law for a generalized Lennard-Jones potential. Journal of Chemical Physics, 2015, 143, 024504.	1.2	17
31	P-NIPAM in waterâ€“acetone mixtures: experiments and simulations. Physical Chemistry Chemical Physics, 2019, 21, 5106-5116.	1.3	17
32	Population Inversion of a NAHS Mixture Adsorbed into a Cylindrical Pore. Journal of Physical Chemistry C, 2008, 112, 18028-18033.	1.5	16
33	Modeling the aggregation of partially covered particles: Theory and simulation. Physical Review E, 2003, 68, 011404.	0.8	15
34	Stability of Ca-montmorillonite hydrates: A computer simulation study. Journal of Chemical Physics, 2005, 123, 174708.	1.2	15
35	Stability of K-Montmorillonite Hydrates:Â Hybrid MC Simulations. Journal of Chemical Theory and Computation, 2005, 1, 1211-1220.	2.3	15
36	Scaling Laws in the Diffusive Release of Neutral Cargo from Hollow Hydrogel Nanoparticles: Paclitaxel-Loaded Poly(4-vinylpyridine). ACS Nano, 2020, 14, 15227-15240.	7.3	15

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37	Coupled aggregation and sedimentation processes: The sticking probability effect. Physical Review E, 2003, 67, 031401.	0.8	14
38	Coexistence and interfacial properties of triangle-well fluids. Molecular Physics, 2014, 112, 2114-2121.	0.8	13
39	Phase diagram of hard squares in slit confinement. Scientific Reports, 2018, 8, 8886.	1.6	13
40	Ordering, clustering, and wetting of hard rods in extreme confinement. Physical Review Research, 2020, 2, .	1.3	13
41	Aggregation kinetics of latex microspheres in alcoholâ€“water media. Journal of Colloid and Interface Science, 2007, 310, 471-480.	5.0	12
42	Ion-induced reversibility in the aggregation of hydrophobic colloids. Soft Matter, 2010, 6, 1114.	1.2	12
43	Vaporâ€“liquid surface tension of strong short-range Yukawa fluid. Journal of Chemical Physics, 2011, 134, 154702.	1.2	12
44	Title is missing!. European Physical Journal E, 2002, 7, 153-161.	0.7	12
45	Entropy effects in self-assembling mechanisms: Also a view from the information theory. Journal of Molecular Liquids, 2011, 164, 87-100.	2.3	11
46	Hard ellipsoids: Analytically approaching the exact overlap distance. Journal of Chemical Physics, 2011, 135, 084508.	1.2	11
47	Stability mechanisms for plate-like nanoparticles immersed in a macroion dispersion. Journal of Physics Condensed Matter, 2009, 21, 424107.	0.7	10
48	Empty liquid state and self-assembly of high valence non-spherical colloidal systems. Soft Matter, 2013, 9, 11178.	1.2	10
49	Empty liquid phase of colloidal ellipsoids: The role of shape and interaction anisotropy. Journal of Chemical Physics, 2014, 140, 134905.	1.2	10
50	Effect of orientational restriction on monolayers of hard ellipsoids. Physical Chemistry Chemical Physics, 2016, 18, 4547-4556.	1.3	10
51	Anomalous structural transition of confined hard squares. Physical Review E, 2016, 94, 050603.	0.8	9
52	Three-step melting of hard superdisks in two dimensions. Physical Review E, 2020, 102, 062603.	0.8	9
53	Communication: Equation of state of hard oblate ellipsoids by replica exchange Monte Carlo. Journal of Chemical Physics, 2011, 134, 201103.	1.2	8
54	Thermodynamic properties of triangle-well fluids in two dimensions: MC and MD simulations. Journal of Chemical Physics, 2016, 145, 174505.	1.2	8

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55	Entropy Driven Self-Assembly in Charged Lockâ€“Key Particles. Journal of Physical Chemistry B, 2016, 120, 5966-5974.	1.2	8
56	Anisotropy-independent packing of confined hard ellipses. Journal of Molecular Liquids, 2021, 333, 115896.	2.3	8
57	Coupled aggregation and sedimentation processes: stochastic mean field theory. Physica A: Statistical Mechanics and its Applications, 2004, 335, 35-46.	1.2	7
58	A coil-to-globule transition capable coarse-grained model for poly(N-isopropylacrylamide). Physical Chemistry Chemical Physics, 2020, 22, 17913-17921.	1.3	7
59	Enhanced two-dimensional nematic order in slit-like pores. New Journal of Physics, 2021, 23, 063053.	1.2	7
60	Two rods confined by positive plates: effective forces and charge distribution profiles. Journal of Physics Condensed Matter, 2006, 18, S2335-S2352.	0.7	6
61	Phase behaviour and separation kinetics of symmetric non-additive hard discs. Molecular Simulation, 2010, 36, 175-185.	0.9	6
62	Expansion of Natural Na⁺â€“ and Ca²⁺â€“Montmorillonites in the Presence of NaCl and Surfactant Solutions. Energy & Fuels, 2012, 26, 2578-2584.	2.5	6
63	Coexistence and interfacial properties of a triangle-well mimicking the Lennard-Jones fluid and a comparison with noble gases. Journal of Chemical Physics, 2015, 142, 074706.	1.2	6
64	Colloid-polymer mixtures under slit confinement. Journal of Chemical Physics, 2017, 146, 104903.	1.2	6
65	Critical behavior of hard squares in strong confinement. Physical Review E, 2017, 95, 042610.	0.8	6
66	Massive replica exchange Monte Carlo algorithm: a tool to access high pressure thermodynamics of hard systems. Physical Chemistry Chemical Physics, 2018, 20, 27490-27500.	1.3	6
67	Assisted crystal growing by tempering metastable vaporâ€“liquid fluids. Chemical Physics Letters, 2011, 501, 466-469.	1.2	5
68	Wallâ€“particle interactions and depletion forces in narrow slits. Current Opinion in Colloid and Interface Science, 2015, 20, 24-31.	3.4	5
69	Equivalence between particles and fields: A general statistical mechanics theory for short and long range manyâ€body forces. Fortschritte Der Physik, 2017, 65, 1600072.	1.5	5
70	Ion-specific colloidal aggregation: Population balance equations and potential of mean force. Journal of Chemical Physics, 2011, 135, 134704.	1.2	4
71	Phase behaviour of short range triangle well fluids: A comparison with lysozyme suspensions. Journal of Molecular Liquids, 2017, 225, 723-729.	2.3	4
72	Structure and coexistence properties of shoulderâ€“square well fluids. Journal of Molecular Liquids, 2013, 185, 70-75.	2.3	2

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73	Molecular dynamics simulations of brine-surfactant lamellas surrounded by nitrogen at different reservoir conditions. Journal of Molecular Liquids, 2018, 256, 480-488.	2.3	2
74	Using a Parallel Genetic Algorithm to Fit a Pulsed Townsend Discharge Simulation to Experiments. Communications in Computer and Information Science, 2016, , 343-355.	0.4	2
75	Extended law of corresponding states: square-well oblates. Journal of Physics Condensed Matter, 2022, 34, 104002.	0.7	2
76	Coupled aggregation and sedimentation processes: Three-dimensional off-lattice simulations. European Physical Journal E, 2002, 7, 153-161.	0.7	1
77	Ethane clathrates using different waterâ€“ethane models: Molecular dynamics. Physica A: Statistical Mechanics and Its Applications, 2018, 491, 89-100.	1.2	1
78	The kinetics of irreversible aggregation processes. , 2001, , 87-90.		1
79	The role of the second virial coefficient in the vapor-liquid phase coexistence of anisotropic square-well particles. Journal of Molecular Liquids, 2022, 360, 119528.	2.3	1
80	Parallel Replica Exchange Monte Carlo Applied to Hard Systems. Communications in Computer and Information Science, 2016, , 392-418.	0.4	0