Haim Diamant

List of Publications by Year
in descending order

87 papers	2,891 citations	147726 31 h-index	182361 51 g-index
89 all docs	89 docs citations	89 times ranked	2471 citing authors

#	Article	IF	Citations
1	Kinetics of Surfactant Adsorption at Fluidâ^'Fluid Interfaces. The Journal of Physical Chemistry, 1996, 100, 13732-13742.	2.9	157
2	Anomalous Hydrodynamic Interaction in a Quasi-Two-Dimensional Suspension. Physical Review Letters, 2004, 92, 258301.	2.9	146
3	Wrinkle to fold transition: influence of the substrate response. Soft Matter, 2013, 9, 8177.	1.2	139
4	From Random Walk to Single-File Diffusion. Physical Review Letters, 2005, 94, 216001.	2.9	128
5	Screened Hydrodynamic Interaction in a Narrow Channel. Physical Review Letters, 2002, 89, 188302.	2.9	115
6	Compression Induced Folding of a Sheet: An Integrable System. Physical Review Letters, 2011, 107, 164302.	2.9	96
7	Dimeric Surfactants: Spacer Chain Conformation and Specific Area at the Air/Water Interface. Langmuir, 1994, 10, 2910-2916.	1.6	93
8	Hydrodynamic Interaction in Confined Geometries. Journal of the Physical Society of Japan, 2009, 78, 041002.	0.7	91
9	Soft quasicrystalsâ€"Why are they stable?. Philosophical Magazine, 2007, 87, 3021-3030.	0.7	86
10	Stability of quasicrystals composed of soft isotropic particles. Physical Review B, 2011, 83, .	1.1	83
11	Correlated Diffusion of Membrane Proteins and Their Effect on Membrane Viscosity. Biophysical Journal, 2009, 96, 3041-3049.	0.2	73
12	Self-Assembly in Mixtures of Polymers and Small Associating Molecules. Macromolecules, 2000, 33, 8050-8061.	2.2	70
13	Kinetics of surfactant adsorption: the free energy approach. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 183-185, 259-276.	2.3	69
14	Topography and instability of monolayers near domain boundaries. Physical Review E, 2001, 63, 061602.	0.8	57
15	Screening length for finite-size ions in concentrated electrolytes. Physical Review E, 2019, 100, 042615.	0.8	56
16	Increased Concentration of Polyvalent Phospholipids in the Adsorption Domain of a Charged Protein. Biophysical Journal, 2004, 86, 2165-2178.	0.2	55
17	Premicellar Aggregation of Amphiphilic Molecules. Journal of Physical Chemistry B, 2007, 111, 8854-8859.	1.2	54
18	Onset of self-assembly in polymer-surfactant systems. Europhysics Letters, 1999, 48, 170-176.	0.7	53

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19	Hydrodynamic Pair Attractions between Driven Colloidal Particles. Physical Review Letters, 2011, 107, 158302.	2.9	50
20	Dynamic Surface Tension of Aqueous Solutions of Ionic Surfactants: Role of Electrostatics. Langmuir, 2011, 27, 1009-1014.	1.6	50
21	Unstable topography of biphasic surfactant monolayers. Europhysics Letters, 2000, 52, 171-177.	0.7	46
22	Binding of molecules to DNA and other semiflexible polymers. Physical Review E, 2000, 61, 6740-6749.	0.8	46
23	Interaction between heterogeneously charged surfaces: Surface patches and charge modulation. Physical Review E, 2013, 87, 022402.	0.8	44
24	Microscopic Folds and Macroscopic Jerks in Compressed Lipid Monolayers. Journal of Physical Chemistry B, 2006, 110, 10220-10223.	1.2	43
25	Correlated dynamics of inclusions in a supported membrane. Physical Review E, 2010, 82, 041912.	0.8	43
26	Dimeric Surfactants: A Simplified Model for the Spacer Chain. Langmuir, 1995, 11, 3605-3606.	1.6	41
27	Kinetics of surfactant adsorption at fluid/fluid interfaces: non-ionic surfactants. Europhysics Letters, 1996, 34, 575-580.	0.7	41
28	Spontaneous and directed symmetry breaking in the formation of chiral nanocrystals. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11159-11164.	3.3	41
29	Wrinkles and folds in a fluid-supported sheet of finite size. Physical Review E, 2015, 91, 052408.	0.8	40
30	Viscoelastic Response of a Complex Fluid at Intermediate Distances. Physical Review Letters, 2014, 112, .	2.9	36
31	Effect of Temperature and Composition on the Formation of Nanoscale Compartments in Phospholipid Membranes. Journal of the American Chemical Society, 2001, 123, 6951-6952.	6.6	34
32	In-Plane Dynamics of Membranes with Immobile Inclusions. Physical Review Letters, 2011, 107, 258102.	2.9	34
33	Kinetics of Surfactant Micellization: A Free Energy Approach. Journal of Physical Chemistry B, 2011, 115, 7268-7280.	1.2	33
34	Premicellar aggregation of amphiphilic molecules: Aggregate lifetime and polydispersity. Journal of Chemical Physics, 2009, 130, 114901.	1.2	29
35	Electrostatics of patchy surfaces. Advances in Colloid and Interface Science, 2017, 247, 198-207.	7.0	28
36	Kinetics of Surfactant Adsorption at Fluidâ˜Fluid Interfaces:Â Surfactant Mixtures. Langmuir, 1999, 15, 3574-3581.	1.6	27

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37	Hydrodynamic interaction in quasi-two-dimensional suspensions. Journal of Physics Condensed Matter, 2005, 17, S2787-S2793.	0.7	27
38	Screening, Hyperuniformity, and Instability in the Sedimentation of Irregular Objects. Physical Review Letters, 2017, 118, 158005.	2.9	24
39	Membrane undulations in a structured fluid: Universal dynamics at intermediate length and time scales. European Physical Journal E, 2018, 41, 1.	0.7	23
40	Light-Controlled Selective Collection-and-Release of Biomolecules by an On-Chip Nanostructured Device. Nano Letters, 2019, 19, 5868-5878.	4.5	23
41	Influence of Hydrodynamic Coupling on Pair Diffusion in a Quasi-One-Dimensional Colloid System. Physical Review Letters, 2005, 95, 158301.	2.9	22
42	Correlated particle dynamics in concentrated quasi-two-dimensional suspensions. Journal of Physics Condensed Matter, 2005, 17, S4047-S4058.	0.7	22
43	A review of shaped colloidal particles in fluids: anisotropy and chirality. Reports on Progress in Physics, 2020, 83, 116601.	8.1	22
44	Law of corresponding states for osmotic swelling of vesicles. Soft Matter, 2012, 8, 2185.	1.2	21
45	Elasticity and Fluctuations of Frustrated Nanoribbons. Physical Review Letters, 2016, 116, 258105.	2.9	20
46	Enhanced Dispersion Interaction in Confined Geometry. Physical Review Letters, 2005, 95, 223203.	2.9	18
47	Pair diffusion in quasi-one- and quasi-two-dimensional binary colloid suspensions. Journal of Chemical Physics, 2007, 126, 134908.	1.2	18
48	Shape and symmetry of a fluid-supported elastic sheet. Physical Review E, 2013, 88, 012401.	0.8	18
49	Divergence of the long-wavelength collective diffusion coefficient in quasi-one- and quasi-two-dimensional colloidal suspensions. Physical Review E, 2014, 89, 022303.	0.8	18
50	Response of a polymer network to the motion of a rigid sphere. European Physical Journal E, 2015, 38, 117.	0.7	18
51	Free energy approach to micellization and aggregation: Equilibrium, metastability, and kinetics. Current Opinion in Colloid and Interface Science, 2016, 22, 94-98.	3.4	18
52	Long-Range Dynamic Correlations in Confined Suspensions. Physical Review Letters, 2010, 104, 248302.	2.9	15
53	Model-free thermodynamics of fluid vesicles. Physical Review E, 2011, 84, 061123.	0.8	15
54	Hydrodynamic interactions between two forced objects of arbitrary shape. I. Effect on alignment. Physics of Fluids, 2015, 27, .	1.6	15

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55	Electrostatic attraction between overall neutral surfaces. Physical Review E, 2016, 94, 022803.	0.8	14
56	Swelling kinetics of the onion phase. European Physical Journal E, 2001, 4, 223-232.	0.7	12
57	Strain tensor selection and the elastic theory of incompatible thin sheets. Physical Review E, 2017, 95, 053003.	0.8	12
58	Smoothening transition of a two-dimensional pressurized polymer ring. European Physical Journal E, 2006, 19, 461-469.	0.7	11
59	Longâ€range hydrodynamic response of particulate liquids and liquidâ€laden solids. Israel Journal of Chemistry, 2007, 47, 225-231.	1.0	11
60	Hydrodynamic interactions between two forced objects of arbitrary shape. II. Relative translation. Physical Review E, 2016, 93, 042609.	0.8	11
61	Properties of compressible elastica from relativistic analogy. Soft Matter, 2016, 12, 664-668.	1.2	11
62	Critical Swelling of Particle-Encapsulating Vesicles. Physical Review Letters, 2008, 101, 078104.	2.9	10
63	Drag of the Cytosol as a Transport Mechanism in Neurons. Biophysical Journal, 2014, 106, 2710-2719.	0.2	10
64	Surface relaxation of lyotropic lamellar phases. Europhysics Letters, 2006, 73, 871-877.	0.7	9
65	In search of soft solutions. Nature, 2001, 412, 391-392.	13.7	8
66	Permeability of Phospholipid Membrane for Small Polar Molecules Determined from Osmotic Swelling of Giant Phospholipid Vesicles. Behavior Research Methods, 2012, 16, 301-335.	2.3	8
67	Inferring entropy from structure. Physical Review E, 2020, 102, 022110.	0.8	7
68	Nanoscale surface relaxation of a membrane stack. Physical Review E, 2007, 76, 042401.	0.8	6
69	Hydrodynamic interactions in ribbon channels: From quasi-one-dimensional to quasi-two-dimensional behavior. Physical Review E, 2010, 82, 031403.	0.8	6
70	Anomalously fast kinetics of lipid monolayer buckling. Physical Review E, 2013, 88, 022405.	0.8	6
71	Structure and dynamics of a layer of sedimented particles. Journal of Chemical Physics, 2015, 143, 074704.	1.2	6
72	Pattern transitions in a compressible floating elastic sheet. Physical Chemistry Chemical Physics, 2017, 19, 23817-23824.	1.3	6

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73	Many-particle mobility and diffusion tensors for objects in viscous sheets. Journal of Chemical Physics, 2018, 149, 034901.	1.2	6
74	Long-range hydrodynamic correlations in quasi-one-dimensional circular and straight geometries. Physical Review E, 2012, 86, 041402.	0.8	5
75	Localized Rayleigh Instability in Evaporation Fronts. Physical Review Letters, 2010, 104, 047801.	2.9	4
76	Delayed nucleation in lipid particles. Soft Matter, 2020, 16, 247-255.	1.2	4
77	Surface Response of a Polymer Network: Semi-infinite Network. Langmuir, 2020, 36, 3981-3987.	1.6	4
78	Swelling of particle-encapsulating random manifolds. Physical Review E, 2008, 78, 021132.	0.8	3
79	Swelling of two-dimensional polymer rings by trapped particles. European Physical Journal E, 2006, 21, 33-40.	0.7	2
80	Sound-mediated dynamic correlations between colloidal particles in a quasi-one-dimensional channel. Journal of Physics: Conference Series, 2012, 392, 012007.	0.3	2
81	Symmetry properties of nonlinear hydrodynamic interactions between responsive particles. Physical Review E, 2021, 103, 042612.	0.8	2
82	Persistent collective motion of a dispersing membrane domain. Biophysical Journal, 2021, 120, 2030-2039.	0.2	2
83	Parametric excitation of wrinkles in elastic sheets on elastic and viscoelastic substrates. European Physical Journal E, 2021, 44, 78.	0.7	2
84	Correlations in suspensions confined between viscoelastic surfaces: Noncontact microrheology. Physical Review E, 2017, 96, 022607.	0.8	1
85	Wrinkled clean. Nature Physics, 2018, 14, 878-879.	6.5	1
86	Permeability of immobile rings of membrane inclusions to in-plane flow. Journal of Chemical Physics, 2019, 150, 154901.	1.2	0
87	Structured viscoelastic substrates as linear foundations. Physical Review E, 2022, 105, 025005.	0.8	0