Hartmut Lowen

List of Publications by Year in descending order

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522 papers 27,896 citations

80 h-index 9861 141 g-index

535 all docs 535 docs citations

535 times ranked 9949 citing authors

#	Article	IF	CITATIONS
1	Active Particles in Complex and Crowded Environments. Reviews of Modern Physics, 2016, 88, .	45.6	1,875
2	Dynamical Clustering and Phase Separation in Suspensions of Self-Propelled Colloidal Particles. Physical Review Letters, 2013, 110, 238301.	7.8	905
3	Meso-scale turbulence in living fluids. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14308-14313.	7.1	747
4	Melting, freezing and colloidal suspensions. Physics Reports, 1994, 237, 249-324.	25.6	525
5	Star Polymers Viewed as Ultrasoft Colloidal Particles. Physical Review Letters, 1998, 80, 4450-4453.	7.8	465
6	EFFECTIVEINTERACTIONSBETWEENELECTRICDOUBLELAYERS. Annual Review of Physical Chemistry, 2000, 51, 209-242.	10.8	408
7	Fundamental-measure free-energy density functional for hard spheres: Dimensional crossover and freezing. Physical Review E, 1997, 55, 4245-4263.	2.1	349
8	Circular Motion of Asymmetric Self-Propelling Particles. Physical Review Letters, 2013, 110, 198302.	7.8	333
9	Polyelectrolyte Complexes. Advances in Polymer Science, 0, , 113-171.	0.8	325
10	Phase-field-crystal models for condensed matter dynamics on atomic length and diffusive time scales: an overview. Advances in Physics, 2012, 61, 665-743.	14.4	303
11	Phase Diagram of Star Polymer Solutions. Physical Review Letters, 1999, 82, 5289-5292.	7.8	280
12	Complex Plasmas and Colloidal Dispersions. Series in Sof Condensed Matter, 2012, , .	0.1	275
13	Criterion for determining clustering versus reentrant melting behavior for bounded interaction potentials. Physical Review E, 2001, 63, 031206.	2.1	250
14	The 2020 motile active matter roadmap. Journal of Physics Condensed Matter, 2020, 32, 193001.	1.8	242
15	Purple Membrane Induced Alignment of Biological Macromolecules in the Magnetic Field. Journal of the American Chemical Society, 1999, 121, 2047-2055.	13.7	238
16	Phase diagram of hard spheres confined between two parallel plates. Physical Review E, 1997, 55, 7228-7241.	2.1	234
17	Fluid and solid phases of the Gaussian core model. Journal of Physics Condensed Matter, 2000, 12, 5087-5108.	1.8	228
18	Microscopic theory for the phase separation of self-propelled repulsive disks. Europhysics Letters, 2013, 103, 30008.	2.0	224

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19	Effective Cahn-Hilliard Equation for the Phase Separation of Active Brownian Particles. Physical Review Letters, 2014, 112, .	7.8	221
20	Dynamics of a Brownian circle swimmer. Physical Review E, 2008, 78, 020101.	2.1	216
21	Crystallization in a Dense Suspension of Self-Propelled Particles. Physical Review Letters, 2012, 108, 168301.	7.8	215
22	Gravitaxis of asymmetric self-propelled colloidal particles. Nature Communications, 2014, 5, 4829.	12.8	211
23	Brownian motion of a self-propelled particle. Journal of Physics Condensed Matter, 2011, 23, 194119.	1.8	210
24	Phototaxis of synthetic microswimmers in optical landscapes. Nature Communications, 2016, 7, 12828.	12.8	210
25	Attraction between Like-Charged Macroions by Coulomb Depletion. Physical Review Letters, 1998, 81, 1334-1337.	7.8	207
26	Dynamical criterion for freezing of colloidal liquids. Physical Review Letters, 1993, 70, 1557-1560.	7.8	202
27	Freezing between Two and Three Dimensions. Physical Review Letters, 1996, 76, 4552-4555.	7.8	200
28	Analytical properties of polaron systems or: Do polaronic phase transitions exist or not?. Reviews of Modern Physics, 1991, 63, 63-90.	45.6	197
29	Colloidal soft matter under external control. Journal of Physics Condensed Matter, 2001, 13, R415-R432.	1.8	196
30	Nonlinear counterion screening in colloidal suspensions. Journal of Chemical Physics, 1993, 98, 3275-3289.	3.0	195
31	Lane formation in colloidal mixtures driven by an external field. Physical Review E, 2002, 65, 021402.	2.1	193
32	Aggregation of self-propelled colloidal rods near confining walls. Physical Review E, 2008, 78, 031409.	2.1	191
33	Derivation of the phase-field-crystal model for colloidal solidification. Physical Review E, 2009, 79, 051404.	2.1	178
34	How to Capture Active Particles. Physical Review Letters, 2012, 108, 268307.	7.8	152
35	Inertial effects of self-propelled particles: From active Brownian to active Langevin motion. Journal of Chemical Physics, 2020, 152, 040901.	3.0	150
36	Density Functional for a Model Colloid-Polymer Mixture. Physical Review Letters, 2000, 85, 1934-1937.	7.8	147

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37	Negative Interfacial Tension in Phase-Separated Active Brownian Particles. Physical Review Letters, 2015, 115, 098301.	7.8	141
38	Brownian dynamics and kinetic glass transition in colloidal suspensions. Physical Review A, 1991, 44, 1169-1181.	2.5	139
39	Transport Powered by Bacterial Turbulence. Physical Review Letters, 2014, 112, 158101.	7.8	139
40	Dynamics of Lane Formation in Driven Binary Complex Plasmas. Physical Review Letters, 2009, 102, 085003.	7.8	138
41	Density functional theory of crystal-fluid interfaces and surface melting. Physical Review E, 1994, 50, 4801-4809.	2.1	137
42	Ab initiodescription of counterion screening in colloidal suspensions. Physical Review Letters, 1992, 68, 1081-1084.	7.8	132
43	Emergent states in dense systems of active rods: from swarming to turbulence. Journal of Physics Condensed Matter, 2012, 24, 464130.	1.8	130
44	Active colloidal suspensions: Clustering and phase behavior. Journal of Non-Crystalline Solids, 2015, 407, 367-375.	3.1	127
45	Classical dynamical density functional theory: from fundamentals to applications. Advances in Physics, 2020, 69, 121-247.	14.4	126
46	Mode-coupling theory of the glass transition in colloidal systems. Physical Review A, 1991, 44, 8215-8219.	2.5	125
47	Effective forces in colloidal mixtures: From depletion attraction to accumulation repulsion. Physical Review E, 2002, 65, 061407.	2.1	125
48	Effective Interaction between Star Polymers. Macromolecules, 1999, 32, 4470-4473.	4.8	124
49	Phase Behavior of Ionic Microgels. Physical Review Letters, 2004, 92, 068301.	7.8	123
50	Non-Gaussian statistics for the motion of self-propelled Janus particles: Experiment versus theory. Physical Review E, 2013, 88, 032304.	2.1	118
51	Brownian dynamics of hard spherocylinders. Physical Review E, 1994, 50, 1232-1242.	2.1	116
52	Asymmetric caging in soft colloidal mixtures. Nature Materials, 2008, 7, 780-784.	27.5	116
53	Counterion-induced entropic interactions in solutions of strongly stretched, osmotic polyelectrolyte stars. Journal of Chemical Physics, 2002, 116, 11011-11027.	3.0	115
54	Lane formation in driven mixtures of oppositely charged colloids. Soft Matter, 2011, 7, 2352.	2.7	115

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55	Statistical Mechanics where Newton's Third Law is Broken. Physical Review X, 2015, 5, .	8.9	115
56	Inertial delay of self-propelled particles. Nature Communications, 2018, 9, 5156.	12.8	113
57	Derivation of dynamical density functional theory using the projection operator technique. Journal of Chemical Physics, 2009, 131, 244101.	3.0	110
58	Conformations and Interactions of Star-Branched Polyelectrolytes. Physical Review Letters, 2001, 88, 018301.	7.8	103
59	Dynamical mean-field theory and weakly non-linear analysis for the phase separation of active Brownian particles. Journal of Chemical Physics, 2015, 142, 224109.	3.0	103
60	Soft Interaction between Dissolved Flexible Dendrimers:  Theory and Experiment. Macromolecules, 2001, 34, 2914-2920.	4.8	102
61	Depletion Forces in Nonequilibrium. Physical Review Letters, 2003, 91, 248301.	7.8	101
62	Crystal Nucleation of Colloidal Suspensions under Shear. Physical Review Letters, 2004, 93, 068303.	7.8	99
63	Dimensional crossover and the freezing transition in density functional theory. Journal of Physics Condensed Matter, 1996, 8, L577-L581.	1.8	98
64	Surface Freezing on Patterned Substrates. Physical Review Letters, 2000, 85, 3668-3671.	7.8	98
65	Traveling and Resting Crystals in Active Systems. Physical Review Letters, 2013, 110, 055702.	7.8	97
66	Motility-Induced Temperature Difference in Coexisting Phases. Physical Review Letters, 2019, 123, 228001.	7.8	96
67	Interfacial free energy of hard-sphere fluids and solids near a hard wall. Physical Review E, 1999, 60, 7057-7065.	2.1	94
68	Synthetic Chemotaxis and Collective Behavior in Active Matter. Accounts of Chemical Research, 2018, 51, 2982-2990.	15.6	93
69	Partial Clustering in Binary Two-Dimensional Colloidal Suspensions. Physical Review Letters, 2006, 97, 078301.	7.8	91
70	Freezing and clustering transitions for penetrable spheres. Physical Review E, 1998, 58, 3135-3144.	2.1	90
71	Entropic wetting and the fluid-fluid interface of a model colloid-polymer mixture. Journal of Physics Condensed Matter, 2002, 14, L1-L8.	1.8	90
72	Unusual swelling of a polymer in a bacterial bath. Journal of Chemical Physics, 2014, 141, 044903.	3.0	88

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73	How does a flexible chain of active particles swell?. Journal of Chemical Physics, 2015, 142, 124905.	3.0	88
74	Two-Dimensional Melting under Quenched Disorder. Physical Review Letters, 2013, 111, 098301.	7.8	85
75	Tension and Stiffness of the Hard Sphere Crystal-Fluid Interface. Physical Review Letters, 2012, 108, 226101.	7.8	84
76	Attraction between DNA molecules mediated by multivalent ions. Physical Review E, 2004, 69, 041904.	2.1	83
77	Brownian dynamics of a self-propelled particle in shear flow. Physical Review E, 2011, 84, 031105.	2.1	83
78	Chirality in microswimmer motion: From circle swimmers to active turbulence. European Physical Journal: Special Topics, 2016, 225, 2319-2331.	2.6	83
79	Light-controlled assembly of active colloidal molecules. Journal of Chemical Physics, 2019, 150, 094905.	3.0	83
80	Reentrant Transitions in Colloidal or Dusty Plasma Bilayers. Physical Review Letters, 2003, 91, 146101.	7.8	82
81	Dynamical density functional theory for anisotropic colloidal particles. Physical Review E, 2007, 76, 021403.	2.1	81
82	Influence of hydrodynamic interactions on lane formation in oppositely charged driven colloids. European Physical Journal E, 2008, 26, 143-150.	1.6	81
83	Optimal Effective Pair Potential for Charged Colloids. Europhysics Letters, 1993, 23, 673-678.	2.0	80
84	Reentrance effect in the lane formation of driven colloids. Physical Review E, 2004, 70, 012401.	2.1	80
85	Absence of phase transitions in Holstein systems. Physical Review B, 1988, 37, 8661-8667.	3.2	78
86	Colloidal Stabilization by Adsorbed Gelatin. Langmuir, 2000, 16, 4100-4108.	3.5	77
87	Effective interactions between star polymers and colloidal particles. Journal of Physics Condensed Matter, 2001, 13, 6177-6194.	1.8	77
88	Lane formation in oppositely charged colloids driven by an electric field: Chaining and two-dimensional crystallization. Physical Review E, 2007, 75, 051402.	2.1	77
89	Glass transition in confined geometry. Physical Review E, 1995, 52, 4016-4025.	2.1	75
90	Self-propelled Brownian spinning top: Dynamics of a biaxial swimmer at low Reynolds numbers. Physical Review E, 2012, 85, 021406.	2.1	75

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91	Swim pressure on walls with curves and corners. Physical Review E, 2015, 92, 032304.	2.1	7 5
92	Dynamical density functional theory for microswimmers. Journal of Chemical Physics, 2016, 144, 024115.	3.0	75
93	Brownian motion and the hydrodynamic friction tensor for colloidal particles of complex shape. Physical Review E, 2013, 88, 050301.	2.1	74
94	Dynamical Density Functional Theory with Hydrodynamic Interactions and Colloids in Unstable Traps. Physical Review Letters, 2008, 101, 148302.	7.8	72
95	Colloidal Crystal Growth at Externally Imposed Nucleation Clusters. Physical Review Letters, 2008, 100, 108302.	7.8	72
96	Freezing and glass transition of hard spheres in cavities. Physical Review E, 1999, 59, 6824-6829.	2.1	71
97	Ionic microgels as model systems for colloids with an ultrasoft electrosteric repulsion: Structure and thermodynamics. Journal of Chemical Physics, 2005, 122, 074903.	3.0	70
98	Density functional theory for a model colloidÂpolymer mixture: bulk fluid phases. Journal of Physics Condensed Matter, 2002, 14, 9353-9382.	1.8	68
99	Tailoring the Flow of Soft Glasses by Soft Additives. Physical Review Letters, 2005, 95, 268301.	7.8	68
100	<i>Viscotaxis</i> : Microswimmer Navigation in Viscosity Gradients. Physical Review Letters, 2018, 120, 208002.	7.8	68
101	Crystal growth at long times: Critical behavior at the crossover from diffusion to kinetics-limited regimes. Physical Review A, 1992, 45, 2399-2415.	2.5	67
102	Dynamical correlations in suspensions of charged rodlike macromolecules. Physical Review E, 1996, 53, 5011-5022.	2.1	67
103	Density jumps across phase transitions in soft-matter systems. Physical Review E, 1998, 57, 5744-5753.	2.1	67
104	Phase diagram of tobacco mosaic virus solutions. Physical Review E, 1999, 59, 1932-1942.	2.1	67
105	Dynamical criterion for two-dimensional freezing. Physical Review E, 1996, 53, R29-R32.	2.1	66
106	The anomalous structure factor of dense star polymer solutions. Journal of Physics Condensed Matter, 1998, 10, 8189-8205.	1.8	65
107	Ultrafast Quenching of Binary Colloidal Suspensions in an External Magnetic Field. Physical Review Letters, 2009, 102, 238301.	7.8	65
108	Diffusion of macromolecules in a polymer hydrogel: from microscopic to macroscopic scales. Physical Chemistry Chemical Physics, 2016, 18, 12860-12876.	2.8	65

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109	Effective forces between macroions: $\hat{a} \in f$ The cases of asymmetric macroions and added salt. Physical Review E, 1998, 57, 5818-5824.	2.1	64
110	Dynamical density functional theory for colloidal dispersions including hydrodynamic interactions. European Physical Journal E, 2009, 28, 139-146.	1.6	64
111	Direct observation of hydrodynamic instabilities in a driven non-uniform colloidal dispersion. Soft Matter, 2009, 5, 1340.	2.7	64
112	Crystallization seeds favour crystallization only during initial growth. Nature Communications, 2015, 6, 7110.	12.8	64
113	Dynamical instability in driven colloids. Europhysics Letters, 2003, 61, 415-421.	2.0	63
114	Active crystals and their stability. Physical Review E, 2014, 89, 022301.	2.1	63
115	Stimuli-Responsive Behavior of PNiPAm Microgels under Interfacial Confinement. Langmuir, 2019, 35, 10512-10521.	3.5	63
116	Van der Waals Theory of Surface Melting. Europhysics Letters, 1989, 9, 791-796.	2.0	62
117	Stability of Colloidal Quasicrystals. Physical Review Letters, 1998, 81, 469-472.	7.8	62
118	Dynamical density functional theory for colloidal particles with arbitrary shape. Molecular Physics, 2011, 109, 2935-2943.	1.7	62
119	Capturing self-propelled particles in a moving microwedge. Physical Review E, 2013, 88, 022311.	2.1	62
120	Growth Modes of Quasicrystals. Physical Review Letters, 2014, 112, 255501.	7.8	62
121	Dynamical test of interaction potentials for colloidal suspensions. Physical Review E, 1994, 50, 2821-2826.	2.1	60
122	Exotic fluids and crystals of soft polymeric colloids. Journal of Physics Condensed Matter, 2002, 14, 7681-7698.	1.8	60
123	Free energies, vacancy concentrations, and density distribution anisotropies in hard-sphere crystals: A combined density functional and simulation study. Physical Review E, 2010, 82, 051404.	2.1	60
124	Dynamical mechanism for the formation of metastable phases. Physical Review Letters, 1991, 67, 1266-1269.	7.8	59
125	Density-functional theory of surface melting. Physical Review A, 1991, 43, 2870-2878.	2.5	58
126	Structure and Brownian dynamics of the two-dimensional Yukawa fluid. Journal of Physics Condensed Matter, 1992, 4, 10105-10116.	1.8	58

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127	Colloidal dispersions in external fields: recent developments. Journal of Physics Condensed Matter, 2008, 20, 404201.	1.8	58
128	Proof of the nonexistence of (formal) phase transitions in polaron systems. I. Physical Review B, 1987, 35, 4291-4296.	3.2	57
129	Crystallization in Sedimentation Profiles of Hard Spheres. Europhysics Letters, 1994, 28, 665-670.	2.0	57
130	Structure and thermodynamics of square-well and square-shoulder fluids. Journal of Physics Condensed Matter, 1999, 11, 10143-10161.	1.8	57
131	Density functional theory for hard spherocylinders: phase transitions in the bulk and in the presence of external fields. Journal of Physics Condensed Matter, 1999, 11, 1435-1452.	1.8	57
132	Phase Behavior of Columnar DNA Assemblies. Physical Review Letters, 2002, 89, 018303.	7.8	57
133	Heterogeneous crystallization of hard-sphere colloids near a wall. Soft Matter, 2011, 7, 8050.	2.7	57
134	Effect of geometrical confinement on the interaction between charged colloidal suspensions. Physical Review E, 1999, 60, 3199-3210.	2.1	56
135	Magnetizing a Complex Plasma without a Magnetic Field. Physical Review Letters, 2012, 109, 155003.	7.8	56
136	Orientational glass transition in a rotator model. Physical Review E, 1995, 52, 5091-5099.	2.1	55
137	Is There a Reentrant Glass in Binary Mixtures?. Physical Review Letters, 2004, 92, 225703.	7.8	55
138	Derivation of a three-dimensional phase-field-crystal model for liquid crystals from density functional theory. Physical Review E, 2010, 82, 031708.	2.1	55
139	Can the self-propulsion of anisotropic microswimmers be described by using forces and torques?. Journal of Physics Condensed Matter, 2015, 27, 194110.	1.8	55
140	Density Distribution in a Hard-Sphere Crystal. Europhysics Letters, 1993, 22, 245-249.	2.0	54
141	Density-functional theory of solid-to-solid isostructural transitions. Journal of Physics Condensed Matter, 1994, 6, 10965-10975.	1.8	54
142	The role of effective triplet interactions in charged colloidal suspensions. Journal of Physics Condensed Matter, 1998, 10, 4147-4160.	1.8	54
143	Stable crystalline lattices in two-dimensional binary mixtures of dipolar particles. Europhysics Letters, 2007, 80, 48001.	2.0	54
144	Ordering phenomena of star polymer solutions approaching the \hat{l} state. Physical Review E, 1998, 58, 6299-6307.	2.1	53

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145	Topological defects in nematic droplets of hard spherocylinders. Physical Review E, 2000, 62, 5081-5091.	2.1	53
146	Chemotactic predator-prey dynamics. Physical Review E, 2011, 83, 031914.	2.1	53
147	Structural control of elastic moduli in ferrogels and the importance of non-affine deformations. Journal of Chemical Physics, 2014, 141, 124904.	3.0	53
148	Charged rodlike colloidal suspensions: An ab initio approach. Journal of Chemical Physics, 1994, 100, 6738-6749.	3.0	51
149	Phase behavior and structure of star-polymer–colloid mixtures. Journal of Chemical Physics, 2002, 116, 9518-9530.	3.0	51
150	Solvent-Induced Phase Separation in Colloidal Fluids. Physical Review Letters, 1995, 74, 1028-1031.	7.8	50
151	Particle-resolved instabilities in colloidal dispersions. Soft Matter, 2010, 6, 3133.	2.7	50
152	Hardening transition in a one-dimensional model for ferrogels. Journal of Chemical Physics, 2013, 138, 204906.	3.0	50
153	Nonmonotonic variation with salt concentration of the second virial coefficient in protein solutions. Physical Review E, 2003, 67, 051404.	2.1	49
154	Kinetics of Fluid Demixing in Complex Plasmas: Role of Two-Scale Interactions. Physical Review Letters, 2010, 105, 045001.	7.8	49
155	Triplet interactions in star polymer solutions. European Physical Journal E, 2000, 2, 311.	1.6	48
156	A circle swimmer at low Reynolds number. European Physical Journal E, 2012, 35, 70.	1.6	48
157	Fission and fusion scenarios for magnetic microswimmer clusters. Nature Communications, 2016, 7, 13519.	12.8	48
158	Aging and rejuvenation of active matter under topological constraints. Scientific Reports, 2017, 7, 5667.	3.3	48
159	Anisotropic self-diffusion in colloidal nematic phases. Physical Review E, 1999, 59, 1989-1995.	2.1	47
160	Which interactions dominate in active colloids?. Journal of Chemical Physics, 2019, 150, 061102.	3.0	47
161	Crystal structures of two-dimensional magnetic colloids in tilted external magnetic fields. Physical Review E, 2003, 68, 061406.	2.1	46
162	A comparative study on the phase behaviour of highly charged colloidal spheres in a confining wedge geometry. Journal of Physics Condensed Matter, 2005, 17, S2779-S2786.	1.8	46

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163	Stick boundary conditions and rotational velocity auto-correlation functions for colloidal particles in a coarse-grained representation of the solvent. Journal of Physics Condensed Matter, 2005, 17, S3393-S3399.	1.8	46
164	Multiple Glass Transitions in Star Polymer Mixtures: Insights from Theory and Simulations. Macromolecules, 2009, 42, 423-434.	4.8	46
165	Freezing transition of hard hyperspheres. Physical Review E, 2001, 65, 016108.	2.1	45
166	Oscillatory driven colloidal binary mixtures: Axial segregation versus laning. Physical Review E, 2009, 79, 041408.	2.1	45
167	Clockwise-directional circle swimmer moves counter-clockwise in Petri dish- and ring-like confinements. Soft Matter, 2009, 5, 4510.	2.7	45
168	Active colloidal molecules. Europhysics Letters, 2018, 121, 58001.	2.0	45
169	Complexes of polyelectrolytes and oppositely charged ionic surfactants. Journal of Chemical Physics, 2003, 118, 10774-10779.	3.0	44
170	Statistical analysis of magnetically soft particles in magnetorheological elastomers. Smart Materials and Structures, 2017, 26, 045012.	3.5	44
171	Critical Behavior of Colloid-Polymer Mixtures in Random Porous Media. Physical Review Letters, 2006, 97, 230603.	7.8	43
172	Freezing of parallel hard cubes with rounded edges. Journal of Chemical Physics, 2012, 136, 144506.	3.0	43
173	Effective interaction between helical biomolecules. Physical Review E, 2000, 62, 5542-5556.	2.1	42
174	Discrete charge patterns, Coulomb correlations and interactions in protein solutions. Europhysics Letters, 2002, 57, 731-737.	2.0	42
175	Crystalline multilayers of the confined Yukawa system. Europhysics Letters, 2009, 86, 28002.	2.0	42
176	Packing Confined Hard Spheres Denser with Adaptive Prism Phases. Physical Review Letters, 2012, 109, 218301.	7.8	42
177	Tailoring superelasticity of soft magnetic materials. Applied Physics Letters, 2015, 107, .	3.3	42
178	Purely Dynamical Signature of the Orientational Glass Transition. Physical Review Letters, 1999, 83, 2757-2760.	7.8	41
179	Twenty years of confined colloids: from confinement-induced freezing to giant breathing. Journal of Physics Condensed Matter, 2009, 21, 474203.	1.8	41
180	A phase-field-crystal model for liquid crystals. Journal of Physics Condensed Matter, 2010, 22, 364105.	1.8	41

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181	Tunable dynamic response of magnetic gels: Impact of structural properties and magnetic fields. Physical Review E, 2014, 90, 042311.	2.1	41
182	Dynamic elastic moduli in magnetic gels: Normal modes and linear response. Journal of Chemical Physics, 2016, 145, 104904.	3.0	41
183	A microscopic mechanism for shockâ€wave generation in pulsedâ€laserâ€heated colloidal suspensions. Journal of Chemical Physics, 1992, 97, 8760-8766.	3.0	40
184	Helical paths, gravitaxis, and separation phenomena for mass-anisotropic self-propelling colloids: Experiment versus theory. Journal of Chemical Physics, 2017, 147, 084905.	3.0	40
185	Active crystals on a sphere. Physical Review E, 2018, 97, 052615.	2.1	40
186	Phase separation in star-polymer–colloid mixtures. Physical Review E, 2001, 64, 010401.	2.1	39
187	Dynamics of two-dimensional one-component and binary Yukawa systems in a magnetic field. Physical Review E, 2014, 89, 013105.	2.1	39
188	Long-time self-diffusion coefficient in colloidal suspensions: theory versus simulation. Journal of Physics Condensed Matter, 1993, 5, 2295-2306.	1.8	38
189	Effective forces between macroions: a Monte Carlo study. Physica A: Statistical Mechanics and Its Applications, 1997, 237, 25-30.	2.6	38
190	Optimal navigation strategies for active particles. Europhysics Letters, 2019, 127, 34003.	2.0	38
191	Polydisperse star polymer solutions. Physical Review E, 2000, 62, 6949-6956.	2.1	36
192	Fun with Hard Spheres. , 2000, , 295-331.		36
193	Dipole correlation effects on the local field and the effective dielectric constant in composite dielectrics containing high-k inclusions. Physical Chemistry Chemical Physics, 2016, 18, 19103-19117.	2.8	36
194	Hydrodynamics can determine the optimal route for microswimmer navigation. Communications Physics, 2021, 4, .	5.3	36
195	Azimuthal Frustration and Bundling in Columnar DNA Aggregates. Biophysical Journal, 2003, 84, 3607-3623.	0.5	35
196	Collapse of Telechelic Star Polymers to Watermelon Structures. Physical Review Letters, 2006, 96, 187802.	7.8	35
197	Dynamics of a microorganism moving by chemotaxis in its own secretion. Physical Review E, 2009, 80, 031122.	2.1	35
198	Swimming trajectories of a three-sphere microswimmer near a wall. Journal of Chemical Physics, 2018, 148, 134904.	3.0	35

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199	Multiple order parameter theory of surface melting: A van der Waals approach. European Physical Journal B, 1990, 79, 109-118.	1.5	34
200	Pattern formation in driven colloidal mixtures: tilted driving forces and re-entrant crystal freezing. Journal of Physics Condensed Matter, 2002, 14, 9383-9395.	1.8	34
201	Elastic constants of the hard-sphere glass: a density functional approach. Journal of Physics Condensed Matter, 1990, 2, 8477-8484.	1.8	33
202	Structure and phase behavior of polyelectrolyte star solutions. Journal of Chemical Physics, 2004, 121, 7009-7021.	3.0	33
203	Crystal nuclei and structural correlations in two-dimensional colloidal mixtures: experiment versus simulation. Journal of Physics Condensed Matter, 2009, 21, 464114.	1.8	33
204	Classical density functional theory: an ideal tool to study heterogeneous crystal nucleation. Journal of Physics Condensed Matter, 2009, 21, 464101.	1.8	33
205	The nature of the laning transition in two dimensions. Journal of Physics Condensed Matter, 2012, 24, 464114.	1.8	33
206	Vortex arrays as emergent collective phenomena for circle swimmers. Physical Review E, 2013, 87, .	2.1	33
207	Effect of self-propulsion on equilibrium clustering. Physical Review E, 2015, 92, 032301.	2.1	33
208	Phase diagram of two-dimensional hard rods from fundamental mixed measure density functional theory. Journal of Chemical Physics, 2017, 147, 134908.	3.0	33
209	Nutrient Transport Driven by Microbial Active Carpets. Physical Review Letters, 2018, 121, 248101.	7.8	33
210	Isostructural solid - solid transitions in square-shoulder systems. Journal of Physics Condensed Matter, 1997, 9, L1-L5.	1.8	32
211	Fluid of penetrable spheres:â€,â€,Testing the universality of the bridge functional. Physical Review E, 2000, 62, 5006-5010.	2.1	32
212	Precrystallization of fluids induced by patterned substrates. Journal of Physics Condensed Matter, 2001, 13, 4675-4696.	1.8	32
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