Alfons van Blaaderen

List of Publications by Year
in descending order

241 papers	22,295 citations	8749 75 h-index	9334 143 g-index
253 all docs	253 docs citations	253 times ranked	17299 citing authors

#	Article	IF	Citations
1	Template-directed colloidal crystallization. Nature, 1997, 385, 321-324.	13.7	1,167
2	A General Method To Coat Colloidal Particles with Silica. Langmuir, 2003, 19, 6693-6700.	1.6	1,087
3	Ionic colloidal crystals of oppositely charged particles. Nature, 2005, 437, 235-240.	13.7	902
4	A colloidal model system with an interaction tunable from hard sphere to soft and dipolar. Nature, 2003, 421, 513-517.	13.7	815
5	Direct Observation of Dynamical Heterogeneities in Colloidal Hard-Sphere Suspensions. Science, 2000, 287, 290-293.	6.0	746
6	Synthesis and characterization of colloidal dispersions of fluorescent, monodisperse silica spheres. Langmuir, 1992, 8, 2921-2931.	1.6	641
7	Metallodielectric Colloidal Coreâ^'Shell Particles for Photonic Applications. Langmuir, 2002, 18, 524-534.	1.6	520
8	Monodisperse colloidal silica spheres from tetraalkoxysilanes: Particle formation and growth mechanism. Journal of Colloid and Interface Science, 1992, 154, 481-501.	5.0	418
9	Synthesis and Characterization of Monodisperse Colloidal Organo-silica Spheres. Journal of Colloid and Interface Science, 1993, 156, 1-18.	5.0	413
10	Layer-by-Layer Growth of Binary Colloidal Crystals. Science, 2002, 296, 106-109.	6.0	378
11	Synthesis of Monodisperse, Rodlike Silica Colloids with Tunable Aspect Ratio. Journal of the American Chemical Society, 2011, 133, 2346-2349.	6.6	366
12	Self-assembly route for photonic crystals with a bandgap in the visible region. Nature Materials, 2007, 6, 202-205.	13.3	357
13	Real-Space Structure of Colloidal Hard-Sphere Glasses. Science, 1995, 270, 1177-1179.	6.0	340
14	Rare-earth doped polymers for planar optical amplifiers. Journal of Applied Physics, 2002, 91, 3955-3980.	1.1	327
15	Synthesis and Characterization of Monodisperse Coreâ^'Shell Colloidal Spheres of Zinc Sulfide and Silica. Langmuir, 2001, 17, 4779-4786.	1.6	319
16	Fluorescence Enhancement by Metal-Core/Silica-Shell Nanoparticles. Advanced Materials, 2006, 18, 91-95.	11.1	319
17	Surface roughness directed self-assembly of patchy particles into colloidal micelles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10787-10792.	3.3	317
18	On the Incorporation Mechanism of Hydrophobic Quantum Dots in Silica Spheres by a Reverse Microemulsion Method. Chemistry of Materials, 2008, 20, 2503-2512.	3.2	297

#	Article	IF	Citations
19	Dispersions of Rhodamine-Labeled Silica Spheres: Synthesis, Characterization, and Fluorescence Confocal Scanning Laser Microscopy. Langmuir, 1994, 10, 1427-1438.	1.6	286
20	Characterizing and tracking single colloidal particles with video holographic microscopy. Optics Express, 2007, 15, 18275.	1.7	272
21	Electrostatics at the oil-water interface, stability, and order in emulsions and colloids. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2585-2590.	3.3	244
22	Entropy-driven formation of large icosahedral colloidal clusters by spherical confinement. Nature Materials, 2015, 14, 56-60.	13.3	237
23	Colloids get complex. Nature, 2006, 439, 545-546.	13.7	230
24	Particle morphology and chemical microstructure of colloidal silica spheres made from alkoxysilanes. Journal of Non-Crystalline Solids, 1992, 149, 161-178.	1.5	224
25	Strong effects of photonic band structures on the diffraction of colloidal crystals. Physical Review B, 1996, 53, 16231-16235.	1.1	191
26	Synthesis and Characterization of Large Colloidal Silver Particles. Langmuir, 2003, 19, 1384-1389.	1.6	189
27	Preparation of Monodisperse, Fluorescent PMMAâ€“Latex Colloids by Dispersion Polymerization. Journal of Colloid and Interface Science, 2002, 245, 292-300.	5.0	188
28	Self-Assembly of Colloids with Liquid Protrusions. Journal of the American Chemical Society, 2009, 131, 1182-1186.	6.6	188
29	NaYF₄:Er³⁺,Yb³⁺/SiO₂ Core/Shell Upconverting Nanocrystals for Luminescence Thermometry up to 900 K. Journal of Physical Chemistry C, 2017, 121, 3503-3510.	1.5	185
30	Hollow Silica Spheres: Synthesis and Mechanical Properties. Langmuir, 2009, 25, 2711-2717.	1.6	172
31	Synthesis and Characterization of Photoswitchable Fluorescent Silica Nanoparticles. Small, 2008, 4, 134-142.	5.2	168
32	Structure of electrorheological fluids. Journal of Chemical Physics, 2000, 112, 3851-3858.	1.2	166
33	CHEMISTRY: Colloidal Molecules and Beyond. Science, 2003, 301, 470-471.	6.0	164
34	Longâ€time selfâ€diffusion of spherical colloidal particles measured with fluorescence recovery after photobleaching. Journal of Chemical Physics, 1992, 96, 4591-4603.	1.2	160
35	Template-Induced Growth of Close-Packed and Non-Close-Packed Colloidal Crystals during Solvent Evaporation. Nano Letters, 2004, 4, 205-208.	4.5	151
36	Photonic crystals of core-shell colloidal particles. Applied Physics Letters, 2002, 80, 49-51.	1.5	140

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37	Aligned Gold Nanorods in Silica Made by Ion Irradiation of Coreâ€“Shell Colloidal Particles. Advanced Materials, 2004, 16, 235-237.	11.1	140
38	Morphology and electro-optic properties of polymer-dispersed liquid-crystal films. Physical Review E, 1997, 55, 1646-1654.	0.8	131
39	Colloidal Ellipsoids with Continuously Variable Shape. Advanced Materials, 2000, 12, 1511-1514.	11.1	129
40	Phase behavior of colloidal silica rods. Faraday Discussions, 2012, 159, 181.	1.6	124
41	Depletion-Induced Crystallization in Colloidal Rodâ^'Sphere Mixtures. Langmuir, 1999, 15, 4693-4696.	1.6	123
42	Optical Properties of Aligned Rod-Shaped Gold Particles Dispersed in Poly(vinyl alcohol) Films. Journal of Physical Chemistry B, 1999, 103, 5761-5767.	1.2	123
43	Nonequilibrium Sedimentation of Colloids on the Particle Scale. Physical Review Letters, 2007, 98, 188304.	2.9	122
44	Patterning surfaces with colloidal particles using optical tweezers. Applied Physics Letters, 2002, 80, 4828-4830.	1.5	121
45	Directing Colloidal Selfâ€Assembly with Biaxial Electric Fields. Advanced Materials, 2009, 21, 3116-3120.	11.1	121
46	A new colloidal model system to study long-range interactions quantitatively in real space. Journal of Physics Condensed Matter, 2003, 15, S3581-S3596.	0.7	117
47	Lane formation in driven mixtures of oppositely charged colloids. Soft Matter, 2011, 7, 2352.	1.2	115
48	Synthesis of Colloidal Silica Dumbbells. Langmuir, 2005, 21, 11510-11517.	1.6	114
49	Optical tweezers and confocal microscopy for simultaneous three-dimensional manipulation and imaging in concentrated colloidal dispersions. Review of Scientific Instruments, 2004, 75, 2960-2970.	0.6	113
50	Melting and crystallization of colloidal hard-sphere suspensions under shear. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10564-10569.	3.3	113
51	Photonic crystals of shape-anisotropic colloidal particles. Applied Physics Letters, 2002, 81, 838-840.	1.5	112
52	Unlocking synergy in bimetallic catalysts by coreâ€“shell design. Nature Materials, 2021, 20, 1216-1220.	13.3	111
53	Nanonewton optical force trap employing anti-reflection coated, high-refractive-index titania microspheres. Nature Photonics, 2012, 6, 469-473.	15.6	108
54	Predatorâ€“prey interactions between droplets driven by non-reciprocal oil exchange. Nature Chemistry, 2020, 12, 1136-1142.	6.6	108

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55	Switching plastic crystals of colloidal rods with electric fields. Nature Communications, 2014, 5, 3092.	5.8	103
56	Stacking faults in colloidal crystals grown by sedimentation. Journal of Chemical Physics, 2002, 117, 11320-11328.	1.2	99
57	Large-Area Electric-Field-Induced Colloidal Single Crystals for Photonic Applications. Advanced Materials, 2004, 16, 596-600.	11.1	94
58	Microradian X-ray diffraction in colloidal photonic crystals. Journal of Applied Crystallography, 2006, 39, 137-144.	1.9	94
59	Re-entrant melting and freezing in a model system of charged colloids. Journal of Chemical Physics, 2006, 124, 244706.	1.2	94
60	Colloidal Analogues of Charged and Uncharged Polymer Chains with Tunable Stiffness. Angewandte Chemie - International Edition, 2012, 51, 11249-11253.	7.2	94
61	CuAu Structure in the Restricted Primitive Model and Oppositely Charged Colloids. Physical Review Letters, 2006, 96, 018303.	2.9	92
62	Directed Self-Assembly of Colloidal Dumbbells with an Electric Field. Langmuir, 2010, 26, 14466-14471.	1.6	92
63	Quantitative Structural Analysis of Binary Nanocrystal Superlattices by Electron Tomography. Nano Letters, 2009, 9, 2719-2724.	4.5	90
64	Three-dimensional imaging of submicrometer colloidal particles in concentrated suspensions using confocal scanning laser microscopy. Langmuir, 1992, 8, 1514-1517.	1.6	89
65	Optical trapping of coated microspheres. Optics Express, 2008, 16, 13831.	1.7	88
66	A comparison between the longâ€time selfâ€diffusion and low shear viscosity of concentrated dispersions of charged colloidal silica spheres. Journal of Chemical Physics, 1994, 100, 2170-2181.	1.2	87
67	A General Method to Coat Colloidal Particles with Titania. Langmuir, 2010, 26, 9297-9303.	1.6	85
68	Erbium-implanted silica colloids with 80% luminescence quantum efficiency. Applied Physics Letters, 2000, 76, 3682-3684.	1.5	84
69	Ion beam-induced anisotropic plastic deformation at 300 keV. Applied Physics Letters, 2003, 83, 4315-4317.	1.5	84
70	Nature of an Electric-Field-Induced Colloidal Martensitic Transition. Physical Review Letters, 2004, 92, 058301.	2.9	83
71	Fabrication of large binary colloidal crystals with a NaCl structure. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16063-16067.	3.3	82
72	Prediction and Observation of Crystal Structures of Oppositely Charged Colloids. Physical Review Letters, 2006, 96, 138308.	2.9	81

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73	Synthesis of Monodisperse, Highly Cross-Linked, Fluorescent PMMA Particles by Dispersion Polymerization. Langmuir, 2012, 28, 6776-6785.	1.6	81
74	Interplay between spherical confinement and particle shape on the self-assembly of rounded cubes. Nature Communications, 2018, 9, 2228.	5.8	81
75	Colloids under External Control. MRS Bulletin, 2004, 29, 85-90.	1.7	79
76	Ion partitioning at the oilâ€“water interface as a source of tunable electrostatic effects in emulsions with colloids. Physical Chemistry Chemical Physics, 2007, 9, 6405.	1.3	77
77	Band Formation in Mixtures of Oppositely Charged Colloids Driven by an ac Electric Field. Physical Review Letters, 2011, 106, 228303.	2.9	74
78	Energy-dependent anisotropic deformation of colloidal silica particles under MeV Au irradiation. Applied Physics Letters, 2001, 78, 910-912.	1.5	71
79	Anisotropic deformation of metallo-dielectric coreâ€“shell colloids under MeV ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2006, 242, 523-529.	0.6	71
80	Anisotropic colloids through non-trivial buckling. European Physical Journal E, 2008, 27, 13-20.	0.7	70
81	Direct observation of stacking disorder in a colloidal crystal. Journal of Chemical Physics, 1995, 102, 1416-1421.	1.2	69
82	Manipulating the self assembly of colloids in electric fields. European Physical Journal: Special Topics, 2013, 222, 2895-2909.	1.2	69
83	Tandem catalysis with double-shelled hollow spheres. Nature Materials, 2022, 21, 572-579.	13.3	65
84	Direct observation of hydrodynamic instabilities in a driven non-uniform colloidal dispersion. Soft Matter, 2009, 5, 1340.	1.2	64
85	Oscillatory shear-induced 3D crystalline order in colloidal hard-sphere fluids. Soft Matter, 2012, 8, 6931.	1.2	64
86	Luminescence thermometry for in situ temperature measurements in microfluidic devices. Lab on A Chip, 2019, 19, 1236-1246.	3.1	64
87	From the de Broglie to Visible Wavelengths: Manipulating Electrons and Photons With Colloids. MRS Bulletin, 1998, 23, 39-43.	1.7	62
88	Shear Melting of Colloidal Crystals of Charged Spheres Studied with Rheology and Polarizing Microscopy. Langmuir, 1994, 10, 3477-3484.	1.6	61
89	Characterization of Photonic Colloidal Single Crystals by Microradian X-ray Diffraction. Advanced Materials, 2006, 18, 1662-1666.	11.1	61
90	Synthesis of Eccentric Titaniaâ^'Silica Coreâ^'Shell and Composite Particles. Chemistry of Materials, 2009, 21, 979-984.	3.2	61

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91	Synthesis of Hollow Asymmetrical Silica Dumbbells with a Movable Inner Core. Langmuir, 2010, 26, 5208-5212.	1.6	59
92	Acid-Based Synthesis of Monodisperse Rare-Earth-Doped Colloidal SiO2Spheres. Chemistry of Materials, 2002, 14, 2849-2853.	3.2	58
93	Single Particle Deformation and Analysis of Silica-Coated Gold Nanorods before and after Femtosecond Laser Pulse Excitation. Nano Letters, 2016, 16, 1818-1825.	4.5	58
94	Monodisperse Coreâ^'Shell Poly(methyl methacrylate) Latex Colloids. Langmuir, 2003, 19, 5963-5966.	1.6	57
95	Surface molecular view of colloidal gelation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13310-13314.	3.3	57
96	Phase transitions, aggregation and crystallization in mixed suspensions of colloidal spheres and rods. Faraday Discussions, 1999, 112, 173-181.	1.6	56
97	Effects of heat treatment and concentration on the luminescence properties of erbium-doped silica solâ€“gel films. Journal of Non-Crystalline Solids, 2001, 296, 158-164.	1.5	56
98	A real-space analysis of colloidal crystallization in a gravitational field at a flat bottom wall. Journal of Chemical Physics, 2003, 119, 3371-3383.	1.2	56
99	Fuel concentration dependent movement of supramolecular catalytic nanomotors. Nanoscale, 2013, 5, 1315-1318.	2.8	56
100	Hard-Sphere Crystals with hcp and Non-Close-Packed Structure Grown by Colloidal Epitaxy. Physical Review Letters, 2003, 90, 138301.	2.9	55
101	Confocal microscopy of colloidal dispersions in shear flow using a counter-rotating coneâ€“plate shear cell. Journal of Physics Condensed Matter, 2004, 16, S3917-S3927.	0.7	55
102	Nucleation of colloidal crystals on configurable seed structures. Soft Matter, 2011, 7, 4623.	1.2	55
103	The accurate calculation of the band gap of liquid water by means of GW corrections applied to plane-wave density functional theory molecular dynamics simulations. Physical Chemistry Chemical Physics, 2015, 17, 365-375.	1.3	54
104	High trapping forces for high-refractive index particles trapped in dynamic arrays of counterpropagating optical tweezers. Applied Optics, 2008, 47, 3196.	2.1	53
105	Shape-Dependent Multiexciton Emission and Whispering Gallery Modes in Supraparticles of CdSe/Multishell Quantum Dots. ACS Nano, 2015, 9, 3942-3950.	7.3	53
106	Crystallization of Nanocrystals in Spherical Confinement Probed by in Situ X-ray Scattering. Nano Letters, 2018, 18, 3675-3681.	4.5	53
107	Extended sedimentation profiles in charged colloids: the gravitational length, entropy, and electrostatics. Journal of Physics Condensed Matter, 2005, 17, 2315-2326.	0.7	52
108	Synthesis of fluorescent monodisperse non-spherical dumbbell-like model colloids. Journal of Materials Chemistry, 2012, 22, 21893.	6.7	52

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109	Solute-mediated interactions between active droplets. Physical Review E, 2017, 96, 032607.	0.8	52
110	Growing large, well-oriented colloidal crystals. Advanced Materials, 1997, 9, 833-835.	11.1	51
111	Combined Optical Tweezers/Ion Beam Technique to Tune Colloidal Masks for Nanolithography. Nano Letters, 2005, 5, 1175-1179.	4.5	51
112	Gel Formation in Suspensions of Oppositely Charged Colloids: Mechanism and Relation to the Equilibrium Phase Diagram. Journal of Physical Chemistry B, 2008, 112, 10861-10872.	1.2	51
113	General Route toward Chemically Anisotropic Colloids. Chemistry of Materials, 2013, 25, 4348-4353.	3.2	51
114	Lasing Supraparticles Self-Assembled from Nanocrystals. ACS Nano, 2018, 12, 12788-12794.	7.3	51
115	Methods to calibrate and scale axial distances in confocal microscopy as a function of refractive index. Journal of Microscopy, 2015, 257, 142-150.	0.8	49
116	Atomic Resolution Monitoring of Cation Exchange in CdSe-PbSe Heteronanocrystals during Epitaxial Solidâ€“Solidâ€“Vapor Growth. Nano Letters, 2014, 14, 3661-3667.	4.5	48
117	Tuning the mechanical properties of silica microcapsules. Physical Chemistry Chemical Physics, 2010, 12, 15392.	1.3	47
118	Preparation and Self-Assembly of Dendronized Janus Fe₃O₄â€“Pt and Fe₃O₄â€“Au Heterodimers. ACS Nano, 2017, 11, 7958-7966.	7.3	46
119	Shaping colloidal assemblies. Materials Today, 2004, 7, 40-46.	8.3	45
120	Optical cavity modes in gold shell colloids. Journal of Applied Physics, 2008, 103, .	1.1	44
121	Colloidal Silica Rods: Material Properties and Fluorescent Labeling. Particle and Particle Systems Characterization, 2014, 31, 706-713.	1.2	43
122	Effect of external electric fields on the phase behavior of colloidal silica rods. Soft Matter, 2014, 10, 6249-6255.	1.2	42
123	Oxidative Etching and Metal Overgrowth of Gold Nanorods within Mesoporous Silica Shells. Chemistry of Materials, 2015, 27, 7196-7203.	3.2	42
124	Binary icosahedral clusters of hard spheres in spherical confinement. Nature Physics, 2021, 17, 128-134.	6.5	42
125	Manipulating metal-oxide nanowires using counter-propagating optical line tweezers. Optics Express, 2007, 15, 11629.	1.7	41
126	Colloidal epitaxy: Playing with the boundary conditions of colloidal crystallization. Faraday Discussions, 2003, 123, 107-119.	1.6	40

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127	Directed Orientation of Asymmetric Composite Dumbbells by Electric Field Induced Assembly. Langmuir, 2012, 28, 6546-6550.	1.6	40
128	Bonding Assembled Colloids without Loss of Colloidal Stability. Advanced Materials, 2012, 24, 412-416.	11.1	40
129	Optical Properties of Spherical and Oblate Spheroidal Gold Shell Colloids. Journal of Physical Chemistry C, 2008, 112, 4146-4150.	1.5	39
130	Colloidal Clusters by Using Emulsions and Dumbbellâ€Shaped Particles: Experiments and Simulations. Angewandte Chemie - International Edition, 2013, 52, 6709-6712.	7.2	39
131	Fully alloyed metal nanorods with highly tunable properties. Nanoscale, 2017, 9, 2845-2851.	2.8	39
132	Composite Supraparticles with Tunable Light Emission. ACS Nano, 2017, 11, 9136-9142.	7.3	39
133	Epitaxial growth of a colloidal hard-sphere hcp crystal and the effects of epitaxial mismatch on crystal structure. Physical Review E, 2004, 69, 051602.	0.8	38
134	Angle-Dependent Extinction of Anisotropic Silica/Au Core/Shell Colloids Made via Ion Irradiation. Advanced Materials, 2005, 17, 1484-1488.	11.1	38
135	In situ hard X-ray microscopy of self-assembly in colloidal suspensions. RSC Advances, 2013, 3, 15670.	1.7	38
136	Quantitative 3D analysis of huge nanoparticle assemblies. Nanoscale, 2016, 8, 292-299.	2.8	38
137	Dynamics of colloidal crystals in shear flow. Soft Matter, 2009, 5, 1060.	1.2	37
138	Quantitative 3D Characterization of Elemental Diffusion Dynamics in Individual Ag@Au Nanoparticles with Different Shapes. ACS Nano, 2019, 13, 13421-13429.	7.3	37
139	Concentrating colloids with electric field gradients. I. Particle transport and growth mechanism of hard-sphere-like crystals in an electric bottle. Journal of Chemical Physics, 2008, 128, 164508.	1.2	36
140	Fabrication of Polyhedral Particles from Spherical Colloids and Their Selfâ€Assembly into Rotator Phases. Angewandte Chemie - International Edition, 2014, 53, 13830-13834.	7.2	36
141	Self-assembly of colloidal particles into strings in a homogeneous external electric or magnetic field. Journal of Physics Condensed Matter, 2012, 24, 464113.	0.7	35
142	An experimental and simulation study on the self-assembly of colloidal cubes in external electric fields. Soft Matter, 2014, 10, 9110-9119.	1.2	35
143	Impact of the electron beam on the thermal stability of gold nanorods studied by environmental transmission electron microscopy. Ultramicroscopy, 2018, 193, 97-103.	0.8	35
144	Self-Assembly of a Colloidal Interstitial Solid with Tunable Sublattice Doping. Physical Review Letters, 2011, 107, 168302.	2.9	33

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145	Confinement Induced Plastic Crystal-to-Crystal Transitions in Rodlike Particles with Long-Ranged Repulsion. Physical Review Letters, 2015, 115, 078301.	2.9	33
146	Selective Depletion Interactions in Mixtures of Rough and Smooth Silica Spheres. Langmuir, 2016, 32, 1233-1240.	1.6	33
147	Modified spontaneous emission in erbium-doped SiO2 spherical colloids. Applied Physics Letters, 2001, 79, 3585-3587.	1.5	32
148	Synthesis of Monodisperse High-Aspect-Ratio Colloidal Silicon and Silica Rods. Langmuir, 2004, 20, 11201-11207.	1.6	32
149	Coherent vibrations of submicron spherical gold shells in a photonic crystal. Physical Review B, 2007, 75, .	1.1	32
150	Electrophoresis of concentrated colloidal dispersions in low-polar solvents. Journal of Colloid and Interface Science, 2011, 361, 443-455.	5.0	32
151	Determination of the positions and orientations of concentrated rod-like colloids from 3D microscopy data. Journal of Physics Condensed Matter, 2015, 27, 194109.	0.7	32
152	In Situ Observation of Atomic Redistribution in Alloying Goldâ€“Silver Nanorods. ACS Nano, 2018, 12, 8467-8476.	7.3	32
153	Interfaceâ€“solvent effects during colloidal phase transitions. Journal of Physics Condensed Matter, 2005, 17, S3469-S3479.	0.7	31
154	Stabilization of Rock Salt ZnO Nanocrystals by Low-Energy Surfaces and Mg Additions: A First-Principles Study. Journal of Physical Chemistry C, 2015, 119, 5648-5656.	1.5	31
155	Epitaxial Crystal Growth of Charged Colloids. Physical Review Letters, 2002, 89, 256104.	2.9	30
156	Long-Ranged Oppositely Charged Interactions for Designing New Types of Colloidal Clusters. Physical Review X, 2015, 5, .	2.8	30
157	Nanocrystal Core Size and Shape Substitutional Doping and Underlying Crystalline Order in Nanocrystal Superlattices. ACS Nano, 2019, 13, 5712-5719.	7.3	30
158	Charging of Poly(methyl methacrylate) (PMMA) Colloids in Cyclohexyl Bromide: Locking, Size Dependence, and Particle Mixtures. Langmuir, 2015, 31, 65-75.	1.6	29
159	Structural Control over Bimetallic Coreâ€“Shell Nanorods for Surface-Enhanced Raman Spectroscopy. ACS Omega, 2021, 6, 7034-7046.	1.6	29
160	A new parallel plate shear cell for in situ real-space measurements of complex fluids under shear flow. Review of Scientific Instruments, 2007, 78, 103902.	0.6	28
161	Controlling competition between crystallization and glass formation in binary colloids with an external field. Journal of Physics Condensed Matter, 2008, 20, 404225.	0.7	28
162	Out-of-equilibrium processes in suspensions of oppositely charged colloids: liquid-to-crystal nucleation and gel formation. Journal of Physics Condensed Matter, 2008, 20, 494247.	0.7	26

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163	Unloading and Reloading Colloidal Microcapsules with Apolar Solutions by Controlled and Reversible Buckling. Langmuir, 2014, 30, 2385-2393.	1.6	26
164	Direct Observation of the Formation of Liquid Protrusions on Polymer Colloids and their Coalescence. ACS Applied Materials & Interfaces, 2013, 5, 4277-4284.	4.0	25
165	Site-specific growth of polymers on silica rods. Soft Matter, 2014, 10, 9644-9650.	1.2	25
166	Phase diagram of binary colloidal rod-sphere mixtures from a 3D real-space analysis of sedimentationâ€“diffusion equilibria. Soft Matter, 2016, 12, 9238-9245.	1.2	25
167	Selective excitation of erbium in silicon-infiltrated silica colloidal photonic crystals. Journal of Applied Physics, 2004, 95, 2297-2302.	1.1	24
168	Multi-particle collision dynamics simulations of sedimenting colloidal dispersions in confinement. Faraday Discussions, 2010, 144, 245-252.	1.6	24
169	A qualitative confocal microscopy study on a range of colloidal processes by simulating microgravity conditions through slow rotations. Soft Matter, 2012, 8, 6979.	1.2	24
170	Effect of size polydispersity on the crystal-fluid and crystal-glass transition in hard-core repulsive Yukawa systems. Journal of Chemical Physics, 2013, 138, 114903.	1.2	24
171	Bridging the gap: 3D real-space characterization of colloidal assemblies via FIB-SEM tomography. Nanoscale, 2019, 11, 5304-5316.	2.8	24
172	Concentrating colloids with electric field gradients. II. Phase transitions and crystal buckling of long-ranged repulsive charged spheres in an electric bottle. Journal of Chemical Physics, 2008, 128, 164509.	1.2	23
173	Quasicrystals from nanocrystals. Nature, 2009, 461, 892-893.	13.7	23
174	Seeded Growth of Titania Colloids with Refractive Index Tunability and Fluorophore-Free Luminescence. Langmuir, 2011, 27, 1626-1634.	1.6	23
175	Measuring colloidal forces from particle position deviations inside an optical trap. Soft Matter, 2011, 7, 3462.	1.2	23
176	Directed Self-Assembly of Micron-Sized Gold Nanoplatelets into Oriented Flexible Stacks with Tunable Interplate Distance. Nano Letters, 2015, 15, 5617-5623.	4.5	22
177	Dynamic self-organization of side-propelling colloidal rods: experiments and simulations. Soft Matter, 2016, 12, 9657-9665.	1.2	22
178	Imaging individual particles in concentrated colloidal dispersions by confocal scanning light microscopy. Advanced Materials, 1993, 5, 52-54.	11.1	20
179	Synthesis of Cone-Shaped Colloids from Rod-Like Silica Colloids with a Gradient in the Etching Rate. Langmuir, 2016, 32, 3970-3976.	1.6	19
180	Electric-Field-Induced Lock-and-Key Interactions between Colloidal Spheres and Bowls. Chemistry of Materials, 2016, 28, 1040-1048.	3.2	19

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181	Silicaâ€Coated Gold Nanorod Supraparticles: A Tunable Platform for Surface Enhanced Raman Spectroscopy. Advanced Functional Materials, 2022, 32, .	7.8	19
182	Yolk/Shell Colloidal Crystals Incorporating Movable Cores with Their Motion Controlled by an External Electric Field. Langmuir, 2017, 33, 296-302.	1.6	18
183	Observation of Undamped 3D Brownian Motion of Nanoparticles Using Liquidâ€Cell Scanning Transmission Electron Microscopy. Particle and Particle Systems Characterization, 2020, 37, 2000003.	1.2	18
184	DETECTING PLANT SILICA FIBRES IN ANIMAL TISSUE BY CONFOCAL FLUORESCENCE MICROSCOPY. Annals of Occupational Hygiene, 1994, 38, 149-60.	1.9	17
185	Repulsive van der Waals forces enable Pickering emulsions with non-touching colloids. Soft Matter, 2016, 12, 7265-7272.	1.2	17
186	Microelectrophoresis of Silica Rods Using Confocal Microscopy. Langmuir, 2017, 33, 881-890.	1.6	17
187	Sculpting Silica Colloids by Etching Particles with Nonuniform Compositions. Chemistry of Materials, 2017, 29, 3304-3313.	3.2	17
188	MONODISPERSE COLLOIDAL SUSPENSIONS OF SILICA AND PMMA SPHERES AS MODEL ELECTRORHEOLOGICAL FLUIDS: A REAL-SPACE STUDY OF STRUCTURE FORMATION. International Journal of Modern Physics B, 2002, 16, 2328-2333.	1.0	16
189	Bulk Scale Synthesis of Monodisperse PDMS Droplets above 3 Î¼m and Their Encapsulation by Elastic Shells. Chemistry of Materials, 2015, 27, 1709-1719.	3.2	16
190	Shaping Silica Rods by Tuning Hydrolysis and Condensation of Silica Precursors. Chemistry of Materials, 2019, 31, 521-531.	3.2	16
191	Compartmentalization of gold nanoparticle clusters in hollow silica spheres and their assembly induced by an external electric field. Journal of Colloid and Interface Science, 2020, 566, 202-210.	5.0	15
192	Optical trapping of coated microspheres. Biophysical Journal, 2009, 96, 644a.	0.2	13
193	Multivalent Patchy Colloids for Quantitative 3D Self-Assembly Studies. Langmuir, 2020, 36, 2403-2418.	1.6	13
194	Non-equilibrium sedimentation of colloids: confocal microscopy and Brownian dynamics simulations. Journal of Physics Condensed Matter, 2008, 20, 494222.	0.7	12
195	Acetate ligands determine the crystal structure of CdSe nanoplatelets â€“ a density functional theory study. Physical Chemistry Chemical Physics, 2016, 18, 22021-22024.	1.3	12
196	Quantitative 3D real-space analysis of Laves phase supraparticles. Nature Communications, 2021, 12, 3980.	5.8	12
197	Expansion of charged colloids after centrifugation: formation and crystallisation of long-range repulsive glasses. Soft Matter, 2013, 9, 11618.	1.2	11
198	Selfâ€Organization of Anisotropic and Binary Colloids in Thermoâ€Switchable 1D Microconfinement. Particle and Particle Systems Characterization, 2015, 32, 313-320.	1.2	11

#	Article	IF	Citations
199	Revealing and Quantifying the Three-Dimensional Nano- and Microscale Structures in Self-Assembled Cellulose Microfibrils in Dispersions. ACS Omega, 2017, 2, 5019-5024.	1.6	11
200	Reflectivity of metallodielectric photonic glasses. Physical Review B, 2004, 69, .	1.1	10
201	Orientation of a dielectric rod near a planar electrode. Physical Chemistry Chemical Physics, 2014, 16, 22575-22582.	1.3	10
202	Regiospecific Nucleation and Growth of Silane Coupling Agent Droplets onto Colloidal Particles. Journal of Physical Chemistry C, 2017, 121, 19989-19998.	1.5	10
203	Symmetric and asymmetric epitaxial growth of metals (Ag, Pd, and Pt) onto Au nanotriangles: effects of reductants and plasmonic properties. Nanoscale, 2021, 13, 2902-2913.	2.8	10
204	3D Atomicâ€Scale Dynamics of Laserâ€Lightâ€Induced Restructuring of Nanoparticles Unraveled by Electron Tomography. Advanced Materials, 2021, 33, 2100972.	11.1	10
205	In Situ Study of the Wet Chemical Etching of SiO2 and Nanoparticle@SiO2 Coreâ€“Shell Nanospheres. ACS Applied Nano Materials, 2021, 4, 1136-1148.	2.4	10
206	Flexibility-induced effects in the Brownian motion of colloidal trimers. Physical Review Research, 2020, 2, .	1.3	10
207	Highly Dispersive Micropatterns in Ion-Exchanged Glass Formed by Ion Irradiation Through a Mask of Colloidal Particles. Advanced Materials, 2002, 14, 1815-1818.	11.1	9
208	Chemical Modification of Colloidal Masks for Nanolithography. Langmuir, 2008, 24, 5967-5969.	1.6	9
209	Comparing photonic band structure calculation methods for diamond and pyrochlore crystals. Optics Express, 2009, 17, 6952.	1.7	9
210	Coreâ€“shell reconfiguration through thermal annealing in Fe_xO/CoFe₂O₄ordered 2D nanocrystal arrays. Nanotechnology, 2014, 25, 055601.	1.3	9
211	Two-Dimensional Hydrous Silica: Nanosheets and Nanotubes Predicted from First-Principles Simulations. Journal of Physical Chemistry C, 2015, 119, 14343-14350.	1.5	9
212	Smectic Liquid Crystalline Titanium Dioxide Nanorods: Reducing Attractions by Optimizing Ligand Density. Advanced Functional Materials, 2020, 30, 2005491.	7.8	9
213	Colloidal crystallization induced by optical gradient forces exerted by optical tweezers. , 2004, , .		8
214	Nematic ordering of polarizable colloidal rods in an external electric field: theory and experiment. Physical Chemistry Chemical Physics, 2015, 17, 22423-22430.	1.3	8
215	In-situ Observation of Hierarchical Self-Assembly Driven by Bicontinuous Gelation in Mixed Nanodisc Dispersions. Scientific Reports, 2018, 8, 5589.	1.6	8
216	Coated microspheres as enhanced probes for optical trapping. , 2008, , .		7

#	Article	IF	Citations
217	Jammed elastic shells â€“ a 3D experimental soft frictionless granular system. Soft Matter, 2015, 11, 1800-1813.	1.2	7
218	Alternating strings and clusters in suspensions of charged colloids. Soft Matter, 2016, 12, 6610-6620.	1.2	7
219	Colloidâ€“oilâ€“water-interface interactions in the presence of multiple salts: charge regulation and dynamics. Physical Chemistry Chemical Physics, 2017, 19, 14345-14357.	1.3	7
220	Single-step coating of mesoporous SiO₂ onto nanoparticles: growth of yolkâ€“shell structures from coreâ€“shell structures. Nanoscale, 2021, 13, 10925-10932.	2.8	7
221	Tunability of Interactions between the Core and Shell in Rattle-Type Particles Studied with Liquid-Cell Electron Microscopy. ACS Nano, 2021, 15, 11137-11149.	7.3	7
222	Synthesis and Characterization of Anatase TiO2 Nanorods: Insights from Nanorodsâ€™ Formation and Self-Assembly. Applied Sciences (Switzerland), 2022, 12, 1614.	1.3	6
223	Random three-dimensional jammed packings of elastic shells acting as force sensors. Physical Review E, 2016, 93, 062901.	0.8	5
224	Seeded-Growth of Silica Rods from Silica-Coated Particles. Langmuir, 2019, 35, 14913-14919.	1.6	5
225	Manipulating Colloidal Crystallization for Photonic Applications: From Self-Organization to Do-it-Yourself Organization. , 2001, , 239-251.		5
226	Optimized 3D Reconstruction of Large, Compact Assemblies of Metallic Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 26240-26246.	1.5	5
227	Three-dimensional silica-gold core-shell photonic crystal: linear reflection and ultrafast nonlinear optical properties. , 2004, , .		4
228	Polymer-based optical interconnects using nanoimprint lithography. , 2013, , .		4
229	Morphological and chemical transformations of single silica-coated CdSe/CdS nanorods upon fs-laser excitation. Nanoscale, 2017, 9, 4810-4818.	2.8	4
230	3D test sample for the calibration and quality control of stimulated emission depletion (STED) and confocal microscopes. Communications Biology, 2021, 4, 909.	2.0	4
231	Stability and geometry of silica nano-ribbons (SNRs): a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 21825-21832.	1.3	3
232	Development of photonic crystal structures for on-board optical communication. Proceedings of SPIE, 2014, , .	0.8	2
233	Axial Confocal Tomography of Capillary-Contained Colloidal Structures. Langmuir, 2017, 33, 13343-13349.	1.6	2
234	Lowâ€dose liquid cell electron microscopy investigation of the complex etching mechanism of rodâ€shaped silica colloids. Nano Select, 2021, 2, 313-327.	1.9	2

#	Article	IF	Citations
235	Influence of Optical Band Structures on the Diffraction of Photonic Colloidal Crystals. , 1996, , 107-118.		2
236	Acoustic vibrations in nanosized gold-shell particles. Journal of Physics: Conference Series, 2007, 92, 012035.	0.3	1
237	Building Two and Three-dimensional Structures of Colloidal Particles on Surfaces using Optical Tweezers and Critical Point Drying. Materials Research Society Symposia Proceedings, 2001, 705, 681.	0.1	0
238	Mutual influence of time-shared optical traps studied by means of Video Holographic Microscopy. , 2009, , .		0
239	Binary Nanoparticle Superlattices in 3D: from Quantitative Analysis of Crystal Structures to Characterization of Lattice Defects.. Microscopy and Microanalysis, 2009, 15, 1192-1193.	0.2	0
240	Self-Assembly: Self-Organization of Anisotropic and Binary Colloids in Thermo-Switchable 1D Microconfinement (Part. Part. Syst. Charact. 3/2015). Particle and Particle Systems Characterization, 2015, 32, 270-270.	1.2	0
241	MONODISPERSE COLLOIDAL SUSPENSIONS OF SILICA AND PMMA SPHERES AS MODEL ELECTRORHEOLOGICAL FLUIDS: A REAL-SPACE STUDY OF STRUCTURE FORMATION. , 2002, , .		0