

Roel P A Dullens

List of Publications by Year in descending order

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58
papers

1,885
citations

304743

22
h-index

254184

43
g-index

58
all docs

58
docs citations

58
times ranked

2214
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical properties of colloidal crystals at fluid interfaces. <i>JPhys Materials</i> , 2021, 4, 025001.	4.2	2
2	Stabilisation of hollow colloidal TiO ₂ particles by partial coating with evenly distributed lobes. <i>Soft Matter</i> , 2021, 17, 1480-1486.	2.7	2
3	Synthesis of Rough Colloidal SU-8 Rods and Bananas via Nanoprecipitation. <i>Langmuir</i> , 2021, 37, 2900-2906.	3.5	4
4	Particle-Level Visualization of Hydrodynamic and Frictional Couplings in Dense Suspensions of Spherical Colloids. <i>Physical Review X</i> , 2021, 11, .	8.9	6
5	Hierarchical self-assembly of polydisperse colloidal bananas into a two-dimensional vortex phase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	4
6	Towards Glasses with Permanent Stability. <i>Physical Review Letters</i> , 2021, 127, 215501.	7.8	11
7	Grain boundary characterization from particle coordinates. <i>Physical Review Materials</i> , 2021, 5, .	2.4	2
8	Shaping colloidal bananas to reveal biaxial, splay-bend nematic, and smectic phases. <i>Science</i> , 2020, 369, 950-955.	12.6	50
9	Generalized network theory of physical two-dimensional systems. <i>Physical Review E</i> , 2020, 101, 042309.	2.1	10
10	Long-time self-diffusion in quasi-two-dimensional colloidal fluids of paramagnetic particles. <i>Physical Review E</i> , 2020, 101, 042609.	2.1	2
11	Shrinkage mechanisms of grain boundary loops in two-dimensional colloidal crystals. <i>European Physical Journal B</i> , 2019, 92, 1.	1.5	1
12	Transport of a colloidal particle driven across a temporally oscillating optical potential energy landscape. <i>New Journal of Physics</i> , 2019, 21, 083027.	2.9	6
13	Colloidal Organosilica Spheres for Three-Dimensional Confocal Microscopy. <i>Langmuir</i> , 2019, 35, 7962-7969.	3.5	12
14	Synthesis of Colloidal SU-8 Polymer Rods Using Sonication. <i>Advanced Materials</i> , 2019, 31, e1807514.	21.0	19
15	Colloidal rods in optical potential energy landscapes. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 024002.	2.8	6
16	Bond-orientational order and Frank's constant in two-dimensional colloidal hard spheres. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 104003.	1.8	6
17	Superparamagnetic nickel colloidal nanocrystal clusters with antibacterial activity and bacteria binding ability. <i>Nature Nanotechnology</i> , 2018, 13, 478-482.	31.5	132
18	Bulk dynamics of Brownian hard disks: Dynamical density functional theory versus experiments on two-dimensional colloidal hard spheres. <i>Journal of Chemical Physics</i> , 2018, 148, 104501.	3.0	22

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19	Communication: Contact values of pair distribution functions in colloidal hard disks by test-particle insertion. <i>Journal of Chemical Physics</i> , 2018, 148, 241102.	3.0	4
20	Capillary nematisation of colloidal rods in confinement. <i>Molecular Physics</i> , 2018, 116, 2864-2871.	1.7	6
21	Structure factors in a two-dimensional binary colloidal hard sphere system. <i>Molecular Physics</i> , 2018, 116, 3245-3257.	1.7	22
22	Dislocation-controlled formation and kinetics of grain boundary loops in two-dimensional crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6922-6927.	7.1	25
23	Directed self-assembly into low-density colloidal liquid crystal phases. <i>Physical Review Materials</i> , 2018, 2, .	2.4	10
24	Self-diffusion in two-dimensional binary colloidal hard-sphere fluids. <i>Physical Review E</i> , 2017, 95, 012614.	2.1	16
25	Dynamic heterogeneities and non-Gaussian behavior in two-dimensional randomly confined colloidal fluids. <i>Physical Review E</i> , 2017, 95, 032602.	2.1	13
26	Dynamic mode locking in a driven colloidal system: experiments and theory. <i>New Journal of Physics</i> , 2017, 19, 013010.	2.9	10
27	The effect of colloidal aggregates on fat crystal networks. <i>Food and Function</i> , 2017, 8, 352-359.	4.6	16
28	Exploring concentration, surface area and surface chemistry effects of colloidal aggregates on fat crystal networks. <i>RSC Advances</i> , 2017, 7, 28780-28787.	3.6	6
29	Two-Dimensional Melting of Colloidal Hard Spheres. <i>Physical Review Letters</i> , 2017, 118, 158001.	7.8	149
30	Anomalous Grain Growth in a Polycrystalline Monolayer of Colloidal Hard Spheres. <i>Physical Review X</i> , 2017, 7, .	8.9	16
31	Segregated Ice Growth in a Suspension of Colloidal Particles. <i>Journal of Physical Chemistry B</i> , 2016, 120, 3941-3949.	2.6	23
32	Core-Shell Particles for Simultaneous 3D Imaging and Optical Tweezing in Dense Colloidal Materials. <i>Advanced Materials</i> , 2016, 28, 8001-8006.	21.0	30
33	Equilibrium Grain Boundary Segregation and Clustering of Impurities in Colloidal Polycrystalline Monolayers. <i>Langmuir</i> , 2016, 32, 12716-12724.	3.5	14
34	Colloidal particles driven across periodic optical-potential-energy landscapes. <i>Physical Review E</i> , 2016, 93, 012608.	2.1	22
35	Thermal Analog of Gimbal Lock in a Colloidal Ferromagnetic Janus Rod. <i>Physical Review Letters</i> , 2015, 115, 248301.	7.8	9
36	Effect of Hydrodynamic Interactions on Self-Diffusion of Quasi-Two-Dimensional Colloidal Hard Spheres. <i>Physical Review Letters</i> , 2015, 115, 268301.	7.8	43

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37	Deterministic aggregation kinetics of superparamagnetic colloidal particles. <i>Journal of Chemical Physics</i> , 2015, 143, 214903.	3.0	13
38	Microscopic dynamics of synchronization in driven colloids. <i>Nature Communications</i> , 2015, 6, 7187.	12.8	57
39	Superconfinement tailors fluid flow at microscales. <i>Nature Communications</i> , 2015, 6, 7297.	12.8	16
40	Decoupled and simultaneous three-dimensional imaging and optical manipulation through a single objective. <i>Optica</i> , 2014, 1, 223.	9.3	23
41	Communication: Radial distribution functions in a two-dimensional binary colloidal hard sphere system. <i>Journal of Chemical Physics</i> , 2014, 140, 161106.	3.0	59
42	Frustrated crystallisation and melting in two-dimensional pentagonal confinement. <i>Soft Matter</i> , 2013, 9, 10586.	2.7	7
43	Emerging structural disorder in a suspension of uniformly dimpled colloidal particles. <i>Soft Matter</i> , 2013, 9, 9361.	2.7	14
44	Viscoelasticity of blood and viscoelastic blood analogues for use in polydimethylsiloxane <i>in vitro</i> models of the circulatory system. <i>Biomicrofluidics</i> , 2013, 7, 34102.	2.4	108
45	Acousto-optically generated potential energy landscapes: Potential mapping using colloids under flow. <i>Optics Express</i> , 2012, 20, 28707.	3.4	25
46	Confinement Induced Splay-to-Bend Transition of Colloidal Rods. <i>Physical Review Letters</i> , 2012, 109, 108303.	7.8	40
47	Shear Thinning and Local Melting of Colloidal Crystals. <i>Physical Review Letters</i> , 2011, 107, 138301.	7.8	49
48	Grain-Boundary Fluctuations in Two-Dimensional Colloidal Crystals. <i>Physical Review Letters</i> , 2010, 105, 168301.	7.8	59
49	Grain boundary pinning in doped hard sphere crystals. <i>Soft Matter</i> , 2009, 5, 2448.	2.7	24
50	Colloidal hard spheres: cooking and looking. <i>Soft Matter</i> , 2006, 2, 805.	2.7	21
51	Shape-Induced Frustration of Hexagonal Order in Polyhedral Colloids. <i>Physical Review Letters</i> , 2006, 96, 028304.	7.8	32
52	Direct measurement of the free energy by optical microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 529-531.	7.1	45
53	Dynamic Broadening of the Crystal-Fluid Interface of Colloidal Hard Spheres. <i>Physical Review Letters</i> , 2006, 97, 228301.	7.8	50
54	Devitrification of colloidal glasses in real space. <i>Physical Review E</i> , 2006, 73, 041401.	2.1	26

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55	Topological lifetimes of polydisperse colloidal hard spheres at a wall. <i>Physical Review E</i> , 2005, 71, 011405.	2.1	14
56	Reentrant Surface Melting of Colloidal Hard Spheres. <i>Physical Review Letters</i> , 2004, 92, 195702.	7.8	37
57	Monodisperse Core-Shell Poly(methyl methacrylate) Latex Colloids. <i>Langmuir</i> , 2003, 19, 5963-5966.	3.5	57
58	Layer-by-Layer Growth of Binary Colloidal Crystals. <i>Science</i> , 2002, 296, 106-109.	12.6	378