Zvonimir ÄogiÄ

List of Publications by Year
in descending order

54
papers

6,062
citations

147566

31
h-index

161609

54
g-index

56
all docs

56
docs citations

56
times ranked

4764
citing authors

#	Article	IF	Citations
1	Engineering stability, longevity, and miscibility of microtubule-based active fluids. Soft Matter, 2022, 18, 1825-1835.	1.2	12
2	Extensile to contractile transition in active microtubuleâ€“actin composites generates layered asters with programmable lifetimes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19
3	Assembling Microtubule-Based Active Matter. Methods in Molecular Biology, 2022, 2430, 151-183.	0.4	6
4	Active Microphase Separation in Mixtures of Microtubules and Tip-Accumulating Molecular Motors. Physical Review X, 2022, 12, .	2.8	10
5	Static adhesion hysteresis in elastic structures. Soft Matter, 2021, 17, 2704-2710.	1.2	4
6	Machine learning active-nematic hydrodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	44
7	Active liquid crystals powered by force-sensing DNA-motor clusters. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	13
8	Multiscale Microtubule Dynamics in Active Nematics. Physical Review Letters, 2021, 127, 148001.	2.9	18
9	Shear-Induced Gelation of Self-Yielding Active Networks. Physical Review Letters, 2020, 125, 178003.	2.9	17
10	All twist and no bend makes raft edges splay: Spontaneous curvature of domain edges in colloidal membranes. Science Advances, 2020, 6, eaba2331.	4.7	6
11	Topological structure and dynamics of three-dimensional active nematics. Science, 2020, 367, 1120-1124.	6.0	135
12	Force-Induced Formation of Twisted Chiral Ribbons. Physical Review Letters, 2020, 125, 018002.	2.9	5
13	Confinement Controls the Bend Instability of Three-Dimensional Active Liquid Crystals. Physical Review Letters, 2020, 125, 257801.	2.9	31
14	Structure, dynamics and phase behavior of short rod inclusions dissolved in a colloidal membrane. Soft Matter, 2019, 15, 7033-7042.	1.2	9
15	Equation of state of colloidal membranes. Soft Matter, 2019, 15, 6791-6802.	1.2	9
16	Conformational switching of chiral colloidal rafts regulates raftâ€“raft attractions and repulsions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15792-15801.	3.3	7
17	Self-straining of actively crosslinked microtubule networks. Nature Physics, 2019, 15, 1295-1300.	6.5	37
18	Statistical properties of autonomous flows in 2D active nematics. Soft Matter, 2019, 15, 3264-3272.	1.2	53

#	Article	IF	Citations
19	Self-organized dynamics and the transition to turbulence of confined active nematics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4788-4797.	3.3	114
20	Microtubules soften due to cross-sectional flattening. ELife, 2018, 7, .	2.8	35
21	Achiral symmetry breaking and positive Gaussian modulus lead to scalloped colloidal membranes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3376-E3384.	3.3	27
22	Structure and Intermolecular Interactions between L-Type Straight Flagellar Filaments. Biophysical Journal, 2017, 112, 2184-2195.	0.2	13
23	Molecular engineering of chiral colloidal liquid crystals using DNA origami. Nature Materials, 2017, 16, 849-856.	13.3	85
24	Transition from turbulent to coherent flows in confined three-dimensional active fluids. Science, 2017, 355, .	6.0	199
25	Active matter at the interface between materials science and cell biology. Nature Reviews Materials, 2017, 2, .	23.3	384
26	Chiral edge fluctuations of colloidal membranes. Physical Review E, 2017, 95, 060701.	0.8	13
27	Filamentous Phages As a Model System in Soft Matter Physics. Frontiers in Microbiology, 2016, 7, 1013.	1.5	23
28	Entropic forces drive contraction of cytoskeletal networks. BioEssays, 2016, 38, 474-481.	1.2	42
29	Entropic forces stabilize diverse emergent structures in colloidal membranes. Soft Matter, 2016, 12, 386-401.	1.2	36
30	Solid friction between soft filaments. Nature Materials, 2015, 14, 583-588.	13.3	87
31	ATP Consumption of Eukaryotic Flagella Measured at a Single-Cell Level. Biophysical Journal, 2015, 109, 2562-2573.	0.2	72
32	Measuring Cohesion between Macromolecular Filaments One Pair at a Time: Depletion-Induced Microtubule Bundling. Physical Review Letters, 2015, 114, 138102.	2.9	58
33	Orientational order of motile defects in activeÂnematics. Nature Materials, 2015, 14, 1110-1115.	13.3	246
34	Tunable dynamics of microtubule-based active isotropic gels. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140142.	1.6	87
35	Hypercomplex Liquid Crystals. Annual Review of Condensed Matter Physics, 2014, 5, 137-157.	5.2	26
36	Topology and dynamics of active nematic vesicles. Science, 2014, 345, 1135-1139.	6.0	450

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37	Hierarchical organization of chiral rafts in colloidal membranes. Nature, 2014, 513, 77-80.	13.7	54
38	Imprintable membranes from incomplete chiral coalescence. Nature Communications, 2014, 5, 3063.	5.8	30
39	Geometrical edgeactants control interfacial bending rigidity of colloidal membranes. Soft Matter, 2013, 9, 8306.	1.2	10
40	Spontaneous motion in hierarchically assembled active matter. Nature, 2012, 491, 431-434.	13.7	1,077
41	Self-assembly of 2D membranes from mixtures of hard rods and depleting polymers. Soft Matter, 2012, 8, 707-714.	1.2	44
42	Reconfigurable self-assembly through chiral control of interfacial tension. Nature, 2012, 481, 348-351.	13.7	206
43	Entropy driven self-assembly of nonamphiphilic colloidal membranes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10348-10353.	3.3	122
44	An active biopolymer network controlled by molecular motors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15192-15197.	3.3	353
45	Direct Measurement of the Twist Penetration Length in a Single Smectic A Layer of Colloidal Virus Particles. Journal of Physical Chemistry B, 2009, 113, 3910-3913.	1.2	37
46	A model liquid crystalline system based on rodlike viruses with variable chirality and persistence length. Soft Matter, 2009, , .	1.2	46
47	A Quantitative Analysis of Contractility in Active Cytoskeletal Protein Networks. Biophysical Journal, 2008, 94, 3126-3136.	0.2	274
48	Bending Dynamics of Fluctuating Biopolymers Probed by Automated High-Resolution Filament Tracking. Biophysical Journal, 2007, 93, 346-359.	0.2	142
49	Isotropic-nematic phase transition in suspensions of filamentous virus and the neutral polymer Dextran. Physical Review E, 2004, 69, 051702.	0.8	122
50	Surface Freezing and a Two-Step Pathway of the Isotropic-Smectic Phase Transition in Colloidal Rods. Physical Review Letters, 2003, 91, 165701.	2.9	59
51	Enhanced stability of layered phases in parallel hard spherocylinders due to addition of hard spheres. Physical Review E, 2000, 62, 3925-3933.	0.8	107
52	Cholesteric Phase in Virus Suspensions. Langmuir, 2000, 16, 7820-7824.	1.6	220
53	Entropically driven microphase transitions in mixtures of colloidal rods and spheres. Nature, 1998, 393, 349-352.	13.7	485
54	Smectic Phase in a Colloidal Suspension of Semiflexible Virus Particles. Physical Review Letters, 1997, 78, 2417-2420.	2.9	238