David Zwicker

List of Publications by Year
in descending order

Version: 2024-02-01

28 papers	1,760 citations	516710 16 h-index	580821 25 g-index
35 all docs	35 docs citations	35 times ranked	1735 citing authors

#	Article	IF	Citations
1	Growth and division of active droplets provides a model for protocells. Nature Physics, 2017, 13, 408-413.	16.7	304
2	Tracking Single Particles and Elongated Filaments with Nanometer Precision. Biophysical Journal, 2011, 100, 2820-2828.	0.5	283
3	Centrosomes are autocatalytic droplets of pericentriolar material organized by centrioles. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2636-45.	7.1	187
4	Physics of active emulsions. Reports on Progress in Physics, 2019, 82, 064601.	20.1	176
5	Suppression of Ostwald ripening in active emulsions. Physical Review E, 2015, 92, 012317.	2.1	146
6	Mechanisms for Active Regulation of Biomolecular Condensates. Trends in Cell Biology, 2020, 30, 4-14.	7.9	127
7	Elastic ripening and inhibition of liquidâ€“liquid phase separation. Nature Physics, 2020, 16, 422-425.	16.7	92
8	Robust circadian clocks from coupled protein-modification and transcriptionâ€“translation cycles. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 22540-22545.	7.1	75
9	Polo-like kinase phosphorylation determines Caenorhabditis elegans centrosome size and density by biasing SPD-5 toward an assembly-competent conformation. Biology Open, 2016, 5, 1431-1440.	1.2	53
10	Atomistic study of the migration of di- and tri-interstitials in silicon. Physical Review B, 2005, 71, .	3.2	42
11	Controlling biomolecular condensates via chemical reactions. Journal of the Royal Society Interface, 2021, 18, 20210255.	3.4	38
12	Receptor arrays optimized for natural odor statistics. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5570-5575.	7.1	36
13	Elastic stresses reverse Ostwald ripening. Soft Matter, 2020, 16, 5892-5897.	2.7	32
14	py-pde: A Python package for solving partial differential equations. Journal of Open Source Software, 2020, 5, 2158.	4.6	25
15	Positioning of Particles in Active Droplets. Physical Review Letters, 2018, 121, 158102.	7.8	24
16	Cavitation controls droplet sizes in elastic media. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	23
17	Physical and geometric constraints shape the labyrinth-like nasal cavity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2936-2941.	7.1	15
18	Theory of droplet ripening in stiffness gradients. Soft Matter, 2020, 16, 5898-5905.	2.7	14

#	Article	IF	Citations
19	Validated reconstructions of geometries of nasal cavities from CT scans. Biomedical Physics and Engineering Express, 2018, 4, 045022.	1.2	10
20	Self-generated oxygen gradients control collective aggregation of photosynthetic microbes. Journal of the Royal Society Interface, 2021, 18, 20210553.	3.4	10
21	The Hubbard model extended by nearestâ€neighbor Coulomb and exchange interaction on a cubic cluster â€“ rigorous and exact results. Annalen Der Physik, 2010, 522, 419-439.	2.4	9
22	Computational Fluid Dynamics Modeling of Nasal Obstruction and Associations with Patient-Reported Outcomes. Plastic and Reconstructive Surgery, 2021, 148, 592e-600e.	1.4	5
23	Primacy coding facilitates effective odor discrimination when receptor sensitivities are tuned. PLoS Computational Biology, 2019, 15, e1007188.	3.2	4
24	Migration of di- and tri-interstitials in silicon. Nuclear Instruments & Methods in Physics Research B, 2005, 228, 212-217.	1.4	3
25	Normalized Neural Representations of Complex Odors. PLoS ONE, 2016, 11, e0166456.	2.5	3
26	Tracking Single Particles and Elongated Filaments with Nanometer Precision. Biophysical Journal, 2011, 100, 158a.	0.5	1
27	Filament Localization with Nanometer Accuracy. Biophysical Journal, 2010, 98, 363a.	0.5	0
28	Nanometer Precision in Filament Localization allows for Precise Off-Axis Tracking of Molecular Motors. Biophysical Journal, 2012, 102, 369a.	0.5	0