Clifford P Brangwynne

List of Publications by Year
in descending order

59 papers	18,738 citations	81839 39 h-index	128225 60 g-index
79 all docs	79 docs citations	79 times ranked	10676 citing authors

#	Article	IF	Citations
1	Compartmentalization of telomeres through DNA-scaffolded phase separation. Developmental Cell, 2022, 57, 277-290.e9.	3.1	38
2	Fingerprinting Small Molecule Modulators of Nucleolar Biophysics. FASEB Journal, 2022, 36, .	0.2	0
3	The mechanobiology of nuclear phase separation. APL Bioengineering, 2022, 6, 021503.	3.3	15
4	The nucleolus as a multiphase liquid condensate. Nature Reviews Molecular Cell Biology, 2021, 22, 165-182.	16.1	480
5	Chromatin mechanics dictates subdiffusion and coarsening dynamics of embedded condensates. Nature Physics, 2021, 17, 531-538.	6.5	106
6	Properties of repression condensates in living Ciona embryos. Nature Communications, 2021, 12, 1561.	5.8	20
7	TGF-Î²-induced DACT1 biomolecular condensates repress Wnt signalling to promote bone metastasis. Nature Cell Biology, 2021, 23, 257-267.	4.6	71
8	SARS-CoV-2 requires cholesterol for viral entry and pathological syncytia formation. ELife, 2021, 10, .	2.8	160
9	HP1Î± is a chromatin crosslinker that controls nuclear and mitotic chromosome mechanics. ELife, 2021, 10, .	2.8	69
10	Mechanical Frustration of Phase Separation in the Cell Nucleus by Chromatin. Physical Review Letters, 2021, 126, 258102.	2.9	50
11	Nucleation landscape of biomolecular condensates. Nature, 2021, 599, 503-506.	13.7	108
12	Phase separation vs aggregation behavior for model disordered proteins. Journal of Chemical Physics, 2021, 155, 125101.	1.2	46
13	Interaction of spindle assembly factor TPX2 with importins-Î±/Î² inhibits protein phase separation. Journal of Biological Chemistry, 2021, 297, 100998.	1.6	21
14	Polycomb condensates can promote epigenetic marks but are not required for sustained chromatin compaction. Nature Communications, 2021, 12, 5888.	5.8	47
15	Nucleated transcriptional condensates amplify gene expression. Nature Cell Biology, 2020, 22, 1187-1196.	4.6	183
16	Composition-dependent thermodynamics of intracellular phase separation. Nature, 2020, 581, 209-214.	13.7	426
17	Model for disordered proteins with strongly sequence-dependent liquid phase behavior. Journal of Chemical Physics, 2020, 152, 075101.	1.2	120
18	Can phase separation buffer cellular noise?. Science, 2020, 367, 364-365.	6.0	32

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19	Competing Protein-RNA Interaction Networks Control Multiphase Intracellular Organization. Cell, 2020, 181, 306-324.e28.	13.5	543
20	Controlling the material properties and rRNA processing function of the nucleolus using light. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17330-17335.	3.3	62
21	Quantifying Dynamics in Phase-Separated Condensates Using Fluorescence Recovery after Photobleaching. Biophysical Journal, 2019, 117, 1285-1300.	0.2	208
22	Phase separation in biology and diseaseâ€"a symposium report. Annals of the New York Academy of Sciences, 2019, 1452, 3-11.	1.8	14
23	The liquid nucleome â€" phase transitions in the nucleus at a glance. Journal of Cell Science, 2019, 132, .	1.2	181
24	Probing and engineering liquid-phase organelles. Nature Biotechnology, 2019, 37, 1435-1445.	9.4	225
25	Physical principles of intracellular organization via active and passive phase transitions. Reports on Progress in Physics, 2018, 81, 046601.	8.1	319
26	Mapping Local and Global Liquid Phase Behavior in Living Cells Using Photo-Oligomerizable Seeds. Cell, 2018, 175, 1467-1480.e13.	13.5	330
27	Liquid Nuclear Condensates Mechanically Sense and Restructure the Genome. Cell, 2018, 175, 1481-1491.e13.	13.5	490
28	Protein Phase Separation Provides Long-Term Memory of Transient Spatial Stimuli. Cell Systems, 2018, 6, 655-663.e5.	2.9	129
29	Farming and public goods production in <i>Caenorhabditis elegans</i> populations. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2289-2294.	3.3	25
30	RNA repeats put a freeze on cells. Nature, 2017, 546, 215-216.	13.7	6
31	Spatiotemporal Control of Intracellular Phase Transitions Using Light-Activated optoDroplets. Cell, 2017, 168, 159-171.e14.	13.5	659
32	Microfluidic immobilization and subcellular imaging of developing Caenorhabditis elegans. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	6
33	Liquid phase condensation in cell physiology and disease. Science, 2017, 357, .	6.0	2,699
34	Phase behaviour of disordered proteins underlying low density and high permeability of liquid organelles. Nature Chemistry, 2017, 9, 1118-1125.	6.6	447
35	Coexisting Liquid Phases Underlie Nucleolar Subcompartments. Cell, 2016, 165, 1686-1697.	13.5	1,463
36	Hierarchical Size Scaling during Multicellular Growth and Development. Cell Reports, 2016, 17, 345-352.	2.9	49

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37	Biophysical characterization of organelle-based RNA/protein liquid phases using microfluidics. Soft Matter, 2016, 12, 9142-9150.	1.2	61
38	A sticky problem for chromosomes. Nature, 2016, 535, 234-235.	13.7	5
39	Soft viscoelastic properties of nuclear actin age oocytes due to gravitational creep. Scientific Reports, 2015, 5, 16607.	1.6	18
40	Remodeling nuclear architecture allows efficient transport of herpesvirus capsids by diffusion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5725-E5733.	3.3	56
41	The disordered P granule protein LAF-1 drives phase separation into droplets with tunable viscosity and dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7189-7194.	3.3	986
42	Liquids, Fibers, and Gels: The Many Phases of Neurodegeneration. Developmental Cell, 2015, 35, 531-532.	3.1	47
43	RNA Controls PolyQ Protein Phase Transitions. Molecular Cell, 2015, 60, 220-230.	4.5	605
44	Inverse Size Scaling of the Nucleolus by a Concentration-Dependent Phase Transition. Current Biology, 2015, 25, 641-646.	1.8	226
45	Nuclear bodies: the emerging biophysics of nucleoplasmic phases. Current Opinion in Cell Biology, 2015, 34, 23-30.	2.6	220
46	Worms under Pressure: Bulk Mechanical Properties of C. elegans Are Independent of the Cuticle. Biophysical Journal, 2015, 108, 1887-1898.	0.2	47
47	Polymer physics of intracellular phase transitions. Nature Physics, 2015, 11, 899-904.	6.5	1,145
48	A size threshold governs Caenorhabditis elegans developmental progression. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151283.	1.2	47
49	RNA transcription modulates phase transition-driven nuclear body assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5237-45.	3.3	416
50	A nuclear F-actin scaffold stabilizes ribonucleoprotein droplets against gravity in large cells. Nature Cell Biology, 2013, 15, 1253-1259.	4.6	252
51	Spatial Organization of the Cell Cytoplasm by Position-Dependent Phase Separation. Physical Review Letters, 2013, 111, 088101.	2.9	131
52	Phase transitions and size scaling of membrane-less organelles. Journal of Cell Biology, 2013, 203, 875-881.	2.3	354
53	Getting RNA and Protein in Phase. Cell, 2012, 149, 1188-1191.	13.5	432
54	Soft active aggregates: mechanics, dynamics and self-assembly of liquid-like intracellular protein bodies. Soft Matter, 2011, 7, 3052.	1.2	94

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55	Beyond Stereospecificity: Liquids and Mesoscale Organization of Cytoplasm. Developmental Cell, 2011, 21, 14-16.	3.1	147
56	Active liquid-like behavior of nucleoli determines their size and shape in <i>Xenopus laevis</i> oocytes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4334-4339.	3.3	1,004
57	Intracellular transport by active diffusion. Trends in Cell Biology, 2009, 19, 423-427.	3.6	209
58	Germline P Granules Are Liquid Droplets That Localize by Controlled Dissolution/Condensation. Science, 2009, 324, 1729-1732.	6.0	2,267
59	Mapping Local and Global Liquid-liquid Phase Behavior in Living Cells Using Light-activated Multivalent Seeds. SSRN Electronic Journal, 0, , .	0.4	0