Michael K Rosen

List of Publications by Year
in descending order

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76 papers	19,573 citations	47006 47 h-index	76900 74 g-index
98 all docs	98 docs citations	98 times ranked	15055 citing authors

#	Article	IF	Citations
1	Biomolecular condensates: organizers of cellular biochemistry. Nature Reviews Molecular Cell Biology, 2017, 18, 285-298.	37.0	3,771
2	Phase transitions in the assembly of multivalent signalling proteins. Nature, 2012, 483, 336-340.	27.8	1,938
3	Formation and Maturation of Phase-Separated Liquid Droplets by RNA-Binding Proteins. Molecular Cell, 2015, 60, 208-219.	9.7	1,298
4	Compositional Control of Phase-Separated Cellular Bodies. Cell, 2016, 166, 651-663.	28.9	945
5	Phase separation of signaling molecules promotes T cell receptor signal transduction. Science, 2016, 352, 595-599.	12.6	941
6	Organization of Chromatin by Intrinsic and Regulated Phase Separation. Cell, 2019, 179, 470-484.e21.	28.9	707
7	Autoinhibition and activation mechanisms of the Wiskottâ€“Aldrich syndrome protein. Nature, 2000, 404, 151-158.	27.8	680
8	Sequence Determinants of Intracellular Phase Separation by Complex Coacervation of a Disordered Protein. Molecular Cell, 2016, 63, 72-85.	9.7	622
9	Intrinsically disordered linkers determine the interplay between phase separation and gelation in multivalent proteins. ELife, 2017, 6, .	6.0	514
10	Phase transitions of multivalent proteins can promote clustering of membrane receptors. ELife, 2014, 3, .	6.0	463
11	A framework for understanding the functions of biomolecular condensates across scales. Nature Reviews Molecular Cell Biology, 2021, 22, 215-235.	37.0	450
12	Structure and control of the actin regulatory WAVE complex. Nature, 2010, 468, 533-538.	27.8	424
13	Constitutively activating mutation in WASP causes X-linked severe congenital neutropenia. Nature Genetics, 2001, 27, 313-317.	21.4	401
14	Stoichiometry controls activity of phase-separated clusters of actin signaling proteins. Science, 2019, 363, 1093-1097.	12.6	360
15	Structure of Cdc42 in complex with the GTPase-binding domain of the â€˜Wiskottâ€“Aldrich syndromeâ€™ protein. Nature, 1999, 399, 379-383.	27.8	320
16	Selective Methyl Group Protonation of Perdeuterated Proteins. Journal of Molecular Biology, 1996, 263, 627-636.	4.2	292
17	Intrinsically disordered sequences enable modulation of protein phase separation through distributed tyrosine motifs. Journal of Biological Chemistry, 2017, 292, 19110-19120.	3.4	288
18	The WAVE Regulatory Complex Links Diverse Receptors to the Actin Cytoskeleton. Cell, 2014, 156, 195-207.	28.9	260

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19	Intrinsically Disordered Regions Can Contribute Promiscuous Interactions to RNP Granule Assembly. Cell Reports, 2018, 22, 1401-1412.	6.4	256
20	Who's In and Who's Outâ€”Compositional Control of Biomolecular Condensates. Journal of Molecular Biology, 2018, 430, 4666-4684.	4.2	255
21	Nuclear Import Receptor Inhibits Phase Separation of FUS through Binding to Multiple Sites. Cell, 2018, 173, 693-705.e22.	28.9	253
22	Physical Mechanisms of Signal Integration by WASP Family Proteins. Annual Review of Biochemistry, 2010, 79, 707-735.	11.1	245
23	Regulation of Transmembrane Signaling by Phase Separation. Annual Review of Biophysics, 2019, 48, 465-494.	10.0	213
24	Regulation of WASH-Dependent Actin Polymerization and Protein Trafficking by Ubiquitination. Cell, 2013, 152, 1051-1064.	28.9	201
25	Hierarchical Regulation of WASP/WAVE Proteins. Molecular Cell, 2008, 32, 426-438.	9.7	188
26	Arp2/3 complex is bound and activated by two WASP proteins. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E472-9.	7.1	180
27	Retromer Binding to FAM21 and the WASH Complex Is Perturbed by the Parkinson Disease-Linked VPS35(D620N) Mutation. Current Biology, 2014, 24, 1670-1676.	3.9	162
28	Conserved interdomain linker promotes phase separation of the multivalent adaptor protein Nck. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6426-35.	7.1	162
29	Contingent Phosphorylation/Dephosphorylation Provides a Mechanism of Molecular Memory in WASP. Molecular Cell, 2003, 11, 1215-1227.	9.7	157
30	Mechanistic dissection of increased enzymatic rate in a phase-separated compartment. Nature Chemical Biology, 2021, 17, 693-702.	8.0	149
31	WASP Recruitment to the T Cell:APC Contact Site Occurs Independently of Cdc42 Activation. Immunity, 2001, 15, 249-259.	14.3	144
32	The WAVE regulatory complex is inhibited. Nature Structural and Molecular Biology, 2009, 16, 561-563.	8.2	135
33	Rac1 GTPase activates the WAVE regulatory complex through two distinct binding sites. ELife, 2017, 6, .	6.0	129
34	Local F-actin Network Links Synapse Formation and Axon Branching. Cell, 2014, 156, 208-220.	28.9	128
35	Structure and mutagenesis of the Dbl homology domain. Nature Structural Biology, 1998, 5, 1098-1107.	9.7	127
36	Data publication with the structural biology data grid supports live analysis. Nature Communications, 2016, 7, 10882.	12.8	113

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37	Three-color single molecule imaging shows WASP detachment from Arp2/3 complex triggers actin filament branch formation. ELife, 2013, 2, e01008.	6.0	101
38	Ena/VASP Proteins Cooperate with the WAVE Complex to Regulate the Actin Cytoskeleton. Developmental Cell, 2014, 30, 569-584.	7.0	101
39	Structural mechanism of WASP activation by the enterohaemorrhagic E. coli effector EspFU. Nature, 2008, 454, 1009-1013.	27.8	92
40	A quantitative inventory of yeast P body proteins reveals principles of composition and specificity. ELife, 2020, 9, .	6.0	90
41	Structural and mechanistic insights into regulation of the retromer coat by TBC1d5. Nature Communications, 2016, 7, 13305.	12.8	88
42	A composition-dependent molecular clutch between T cell signaling condensates and actin. ELife, 2019, 8, .	6.0	86
43	Measurement and Analysis of In Vitro Actin Polymerization. Methods in Molecular Biology, 2013, 1046, 273-293.	0.9	80
44	Protein-tyrosine Kinase and GTPase Signals Cooperate to Phosphorylate and Activate Wiskott-Aldrich Syndrome Protein (WASP)/Neuronal WASP. Journal of Biological Chemistry, 2006, 281, 3513-3520.	3.4	79
45	Dynamin regulates the dynamics and mechanical strength of the actin cytoskeleton as a multifilament actin-bundling protein. Nature Cell Biology, 2020, 22, 674-688.	10.3	70
46	Fat2 acts through the WAVE regulatory complex to drive collective cell migration during tissue rotation. Journal of Cell Biology, 2016, 212, 591-603.	5.2	54
47	ATP controls the crowd. Science, 2017, 356, 701-702.	12.6	54
48	A Two-State Allosteric Model for Autoinhibition Rationalizes WASP Signal Integration and Targeting. Journal of Molecular Biology, 2004, 338, 271-285.	4.2	51
49	Actin is an evolutionarily-conserved damage-associated molecular pattern that signals tissue injury in Drosophila melanogaster. ELife, 2016, 5, .	6.0	51
50	Uncoupling Kapî²2 Substrate Dissociation and Ran Binding. Biochemistry, 2002, 41, 6955-6966.	2.5	50
51	Synergistic phase separation of two pathways promotes integrin clustering and nascent adhesion formation. ELife, 2022, 11, .	6.0	44
52	The Bacterial Effector VopL Organizes Actin into Filament-like Structures. Cell, 2013, 155, 423-434.	28.9	43
53	Methyl labeling and TROSY NMR spectroscopy of proteins expressed in the eukaryote Pichia pastoris. Journal of Biomolecular NMR, 2015, 62, 239-245.	2.8	42
54	Karyopherins and condensates. Current Opinion in Cell Biology, 2020, 64, 112-123.	5.4	42

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55	The role of sigma 1 receptor in organization of endoplasmic reticulum signaling microdomains. ELife, 2021, 10, .	6.0	40
56	Determination of protein complex stoichiometry through multisignal sedimentation velocity experiments. Analytical Biochemistry, 2010, 407, 89-103.	2.4	39
57	Crystal Structure of the Formin mDia1 in Autoinhibited Conformation. PLoS ONE, 2010, 5, e12896.	2.5	39
58	Structureâ€“Function Properties in Disordered Condensates. Journal of Physical Chemistry B, 2021, 125, 467-476.	2.6	34
59	Phosphorylation of nephrin induces phase separated domains that move through actomyosin contraction. Molecular Biology of the Cell, 2019, 30, 2996-3012.	2.1	30
60	Inhibition of CRISPR-Cas12a DNA targeting by nucleosomes and chromatin. Science Advances, 2021, 7, .	10.3	30
61	Allosteric Modulation of Grb2 Recruitment to the Intrinsically Disordered Scaffold Protein, LAT, by Remote Site Phosphorylation. Journal of the American Chemical Society, 2017, 139, 18009-18015.	13.7	27
62	Reconstitution of TCR Signaling Using Supported Lipid Bilayers. Methods in Molecular Biology, 2017, 1584, 65-76.	0.9	24
63	Biochemical Reconstitution of the WAVE Regulatory Complex. Methods in Enzymology, 2014, 540, 55-72.	1.0	20
64	NMR detection of side chain-side chain hydrogen bonding interactions in 13C/15N-labeled proteins. Journal of Biomolecular NMR, 2000, 17, 305-310.	2.8	19
65	Synthesis and Biological Evaluation of Kibdelone C and Its Simplified Derivatives. Journal of the American Chemical Society, 2016, 138, 10561-10570.	13.7	18
66	Using quantitative reconstitution to investigate multi-component condensates. Rna, 2021, , rna.079008.121.	3.5	16
67	Detection of very weak side chain-main chain hydrogen bonding interactions in medium-size 13C/15N-labeled proteins by sensitivity-enhanced NMR spectroscopy. Journal of Biomolecular NMR, 2000, 17, 79-82.	2.8	15
68	Purification of Native Arp2/3 Complex from Bovine Thymus. Methods in Molecular Biology, 2013, 1046, 231-250.	0.9	15
69	STRUCTURAL BIOLOGY: Flipping a Switch. Science, 2001, 291, 2329-2330.	12.6	12
70	Improved strategy for isoleucine 1H/13C methyl labeling in Pichia pastoris. Journal of Biomolecular NMR, 2019, 73, 687-697.	2.8	10
71	Poly-glutamine-dependent self-association as a potential mechanism for regulation of androgen receptor activity. PLoS ONE, 2022, 17, e0258876.	2.5	7
72	Mechanistic Studies of Affinity Modulation. Journal of the American Chemical Society, 2000, 122, 11979-11982.	13.7	6

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73	Bound nucleotide can control the dynamic architecture of monomeric actin. Nature Structural and Molecular Biology, 2022, 29, 320-328.	8.2	5
74	Beth Levine M.D. Prize in Autophagy Research. Autophagy, 2021, 17, 2053-2053.	9.1	0
75	Development of a Chemicalâ€•and Photoâ€Switchable Wiskottâ€Aldrich Syndrome Protein. FASEB Journal, 2007, 21, A994.	0.5	0
76	Litâ€structure in the dark: conformational dynamics of phototropin LOV2 domain by relaxation NMR. FASEB Journal, 2007, 21, A270.	0.5	0