

Yifan Cheng

List of Publications by Year in descending order

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78
papers

21,959
citations

44069

48
h-index

74163

75
g-index

99
all docs

99
docs citations

99
times ranked

23826
citing authors

#	ARTICLE	IF	CITATIONS
1	MotionCor2: anisotropic correction of beam-induced motion for improved cryo-electron microscopy. Nature Methods, 2017, 14, 331-332.	19.0	6,166
2	Electron counting and beam-induced motion correction enable near-atomic-resolution single-particle cryo-EM. Nature Methods, 2013, 10, 584-590.	19.0	1,707
3	Structure of the TRPV1 ion channel determined by electron cryo-microscopy. Nature, 2013, 504, 107-112.	27.8	1,451
4	TRPV1 structures in distinct conformations reveal activation mechanisms. Nature, 2013, 504, 113-118.	27.8	895
5	EMRinger: side chain-directed model and map validation for 3D cryo-electron microscopy. Nature Methods, 2015, 12, 943-946.	19.0	799
6	TRPV1 structures in nanodiscs reveal mechanisms of ligand and lipid action. Nature, 2016, 534, 347-351.	27.8	702
7	Lipid-protein interactions in double-layered two-dimensional AQP0 crystals. Nature, 2005, 438, 633-638.	27.8	617
8	Negative staining and image classification - powerful tools in modern electron microscopy. Biological Procedures Online, 2004, 6, 23-34.	2.9	598
9	Structure of the TRPA1 ion channel suggests regulatory mechanisms. Nature, 2015, 520, 511-517.	27.8	522
10	Comparative host-coronavirus protein interaction networks reveal pan-viral disease mechanisms. Science, 2020, 370, .	12.6	508
11	Single-Particle Cryo-EM at Crystallographic Resolution. Cell, 2015, 161, 450-457.	28.9	481
12	A Primer to Single-Particle Cryo-Electron Microscopy. Cell, 2015, 161, 438-449.	28.9	478
13	Docking of the Proteasomal ATPases' Carboxyl Termini in the 20S Proteasome's Î± Ring Opens the Gate for Substrate Entry. Molecular Cell, 2007, 27, 731-744.	9.7	460
14	Automated structure refinement of macromolecular assemblies from cryo-EM maps using Rosetta. ELife, 2016, 5, .	6.0	407
15	Glycine receptor mechanism elucidated by electron cryo-microscopy. Nature, 2015, 526, 224-229.	27.8	370
16	Mechanism of Gate Opening in the 20S Proteasome by the Proteasomal ATPases. Molecular Cell, 2008, 30, 360-368.	9.7	334
17	Single-particle cryo-EM - How did it get here and where will it go. Science, 2018, 361, 876-880.	12.6	291
18	Cryo-EM structures of the TMEM16A calcium-activated chloride channel. Nature, 2017, 552, 426-429.	27.8	274

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19	Acetylation-Mediated Proteasomal Degradation of Core Histones during DNA Repair and Spermatogenesis. <i>Cell</i> , 2013, 153, 1012-1024.	28.9	272
20	Rqc2p and 60S ribosomal subunits mediate mRNA-independent elongation of nascent chains. <i>Science</i> , 2015, 347, 75-78.	12.6	245
21	ATP Binding to PAN or the 26S ATPases Causes Association with the 20S Proteasome, Gate Opening, and Translocation of Unfolded Proteins. <i>Molecular Cell</i> , 2005, 20, 687-698.	9.7	230
22	Structure of the human TRPM4 ion channel in a lipid nanodisc. <i>Science</i> , 2018, 359, 228-232.	12.6	219
23	Mechanistic insights into the recycling machine of the SNARE complex. <i>Nature</i> , 2015, 518, 61-67.	27.8	216
24	A saposin-lipoprotein nanoparticle system for membrane proteins. <i>Nature Methods</i> , 2016, 13, 345-351.	19.0	209
25	Electron cryo-microscopy structure of the mechanotransduction channel NOMPC. <i>Nature</i> , 2017, 547, 118-122.	27.8	198
26	Structural Basis for Cholesterol Transport-like Activity of the Hedgehog Receptor Patched. <i>Cell</i> , 2018, 175, 1352-1364.e14.	28.9	197
27	Structure of hepcidin-bound ferroportin reveals iron homeostatic mechanisms. <i>Nature</i> , 2020, 586, 807-811.	27.8	172
28	The chromatin remodeller ACF acts as a dimeric motor to space nucleosomes. <i>Nature</i> , 2009, 462, 1016-1021.	27.8	160
29	Fabs Enable Single Particle cryoEM Studies of Small Proteins. <i>Structure</i> , 2012, 20, 582-592.	3.3	154
30	Cryo-EM structure of a fungal mitochondrial calcium uniporter. <i>Nature</i> , 2018, 559, 570-574.	27.8	125
31	Membrane protein structural biology in the era of single particle cryo-EM. <i>Current Opinion in Structural Biology</i> , 2018, 52, 58-63.	5.7	122
32	Structural insights into TRPM8 inhibition and desensitization. <i>Science</i> , 2019, 365, 1434-1440.	12.6	118
33	Subnanometre-resolution electron cryomicroscopy structure of a heterodimeric ABC exporter. <i>Nature</i> , 2015, 517, 396-400.	27.8	114
34	Visualizing Proteins and Macromolecular Complexes by Negative Stain EM: from Grid Preparation to Image Acquisition. <i>Journal of Visualized Experiments</i> , 2011, , .	0.3	109
35	Cryo-EM Reveals Integrin-Mediated TGF- β 2 Activation without Release from Latent TGF- β 2. <i>Cell</i> , 2020, 180, 490-501.e16.	28.9	102
36	A simple and robust procedure for preparing graphene-oxide cryo-EM grids. <i>Journal of Structural Biology</i> , 2018, 204, 80-84.	2.8	101

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37	Structural snapshots of TRPV1 reveal mechanism of polymodal functionality. <i>Cell</i> , 2021, 184, 5138-5150.e12.	28.9	101
38	Interactions of PAN's C-termini with archaeal 20S proteasome and implications for the eukaryotic proteasome's ATPase interactions. <i>EMBO Journal</i> , 2010, 29, 692-702.	7.8	100
39	Influence of electron dose rate on electron counting images recorded with the K2 camera. <i>Journal of Structural Biology</i> , 2013, 184, 251-260.	2.8	99
40	Irritant-evoked activation and calcium modulation of the TRPA1 receptor. <i>Nature</i> , 2020, 585, 141-145.	27.8	93
41	Asynchronous data acquisition and on-the-fly analysis of dose fractionated cryoEM images by UCSFImage. <i>Journal of Structural Biology</i> , 2015, 192, 174-178.	2.8	92
42	Integrin α 2 β 1-expressing tumor cells evade host immunity by regulating TGF- β 2 activation in immune cells. <i>JCI Insight</i> , 2018, 3, .	5.0	82
43	Selective Targeting of TGF- β 2 Activation to Treat Fibroinflammatory Airway Disease. <i>Science Translational Medicine</i> , 2014, 6, 241ra79.	12.4	79
44	Structural insight into TRPV5 channel function and modulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8869-8878.	7.1	78
45	Bi-paratopic and multivalent VH domains block ACE2 binding and neutralize SARS-CoV-2. <i>Nature Chemical Biology</i> , 2021, 17, 113-121.	8.0	78
46	General and robust covalently linked graphene oxide affinity grids for high-resolution cryo-EM. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24269-24273.	7.1	71
47	Cryo-EM structures of remodeler-nucleosome intermediates suggest allosteric control through the nucleosome. <i>ELife</i> , 2019, 8, .	6.0	70
48	Membrane mimetic systems in CryoEM: keeping membrane proteins in their native environment. <i>Current Opinion in Structural Biology</i> , 2019, 58, 259-268.	5.7	60
49	Alignment of direct detection device micrographs using a robust Optical Flow approach. <i>Journal of Structural Biology</i> , 2015, 189, 163-176.	2.8	59
50	Ion transport and regulation in a synaptic vesicle glutamate transporter. <i>Science</i> , 2020, 368, 893-897.	12.6	53
51	Protein nanoribbons template enamel mineralization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19201-19208.	7.1	46
52	Amino and PEG-amino graphene oxide grids enrich and protect samples for high-resolution single particle cryo-electron microscopy. <i>Journal of Structural Biology</i> , 2020, 209, 107437.	2.8	45
53	Controlling Styrene Maleic Acid Lipid Particles through RAFT. <i>Biomacromolecules</i> , 2017, 18, 3706-3713.	5.4	44
54	Why recombinant antibodies are benefits and applications. <i>Current Opinion in Biotechnology</i> , 2019, 60, 153-158.	6.6	44

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55	Current outcomes when optimizing "standard" sample preparation for single-particle cryo-EM. <i>Journal of Microscopy</i> , 2019, 276, 39-45.	1.8	41
56	Structural basis for activation of voltage sensor domains in an ion channel TPC1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E9095-E9104.	7.1	40
57	Cryo-EM structure of the β_2 integrin reveals a mechanism for stabilizing integrin extension. <i>Nature Structural and Molecular Biology</i> , 2018, 25, 698-704.	8.2	40
58	Selective G protein signaling driven by substance P "neurokinin receptor dynamics. <i>Nature Chemical Biology</i> , 2022, 18, 109-115.	8.0	40
59	Lipid Nanodiscs via Ordered Copolymers. <i>CheM</i> , 2020, 6, 2782-2795.	11.7	32
60	Molecular goniometers for single-particle cryo-electron microscopy of DNA-binding proteins. <i>Nature Biotechnology</i> , 2021, 39, 378-386.	17.5	26
61	High-power near-concentric Fabry-Perot cavity for phase contrast electron microscopy. <i>Review of Scientific Instruments</i> , 2021, 92, 053005.	1.3	24
62	Enhancing the signal-to-noise ratio and generating contrast for cryo-EM images with convolutional neural networks. <i>IUCr</i> , 2020, 7, 1142-1150.	2.2	24
63	Hedgehog pathway activation through nanobody-mediated conformational blockade of the Patched sterol conduit. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 28838-28846.	7.1	22
64	Sensory TRP Channels in Three Dimensions. <i>Annual Review of Biochemistry</i> , 2022, 91, 629-649.	11.1	22
65	High-resolution structures of α transient receptor potential vanilloid channels: Unveiling a functionally diverse group of ion channels. <i>Protein Science</i> , 2020, 29, 1569-1580.	7.6	20
66	The first single particle analysis Map Challenge: A summary of the assessments. <i>Journal of Structural Biology</i> , 2018, 204, 291-300.	2.8	17
67	A tumor-specific mechanism of T α enrichment mediated by the integrin β_2 . <i>Science Immunology</i> , 2021, 6, .	11.9	17
68	Fab-based inhibitors reveal ubiquitin independent functions for HIV Vif neutralization of APOBEC3 restriction factors. <i>PLoS Pathogens</i> , 2018, 14, e1006830.	4.7	17
69	Antibody-Drug Conjugates Targeting the Urokinase Receptor (uPAR) as a Possible Treatment of Aggressive Breast Cancer. <i>Antibodies</i> , 2019, 8, 54.	2.5	16
70	Allosteric coupling between β -rings of the 20S proteasome. <i>Nature Communications</i> , 2020, 11, 4580.	12.8	16
71	Dispatched uses Na ⁺ flux to power release of lipid-modified Hedgehog. <i>Nature</i> , 2021, 599, 320-324.	27.8	16
72	Single-particle cryo-EM: beyond the resolution. <i>National Science Review</i> , 2019, 6, 864-866.	9.5	9

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73	TRPV1 and Piezo: the 2021 Nobel Prize in Physiology or Medicine. <i>IUCr</i> , 2022, 9, 4-5.	2.2	4
74	Allostery Modulates Interactions between Proteasome Core Particles and Regulatory Particles. <i>Biomolecules</i> , 2022, 12, 764.	4.0	3
75	Stoichiometry of Nucleotide Binding to Proteasome AAA+ ATPase Hexamer Established by Native Mass Spectrometry. <i>Molecular and Cellular Proteomics</i> , 2020, 19, 1997-2015.	3.8	2
76	Structural Studies of α 28 Integrin by Single Particle Cryo-EM. <i>Microscopy and Microanalysis</i> , 2019, 25, 1312-1313.	0.4	0
77	Identification of recombinant Fabs for structural and functional characterization of HIV-host factor complexes. <i>PLoS ONE</i> , 2021, 16, e0250318.	2.5	0
78	Classifying Liganded States in Heterogeneous Single-Particle Cryo-EM Datasets. <i>Microscopy (Oxford)</i> , 2021, 10, 1-15.	1.5	0