Edward H Snell

List of Publications by Year
in descending order

97	2,486	186265	233421
papers	citations	28 h-index	45 g-index

102	102	102	3031
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optical measurements of long-range protein vibrations. Nature Communications, 2014, 5, 3076.	12.8	166
2	Microgravity and Macromolecular Crystallography. Crystal Growth and Design, 2001, 1, 87-99.	3.0	109
3	The Effect of Temperature and Solution pH on the Nucleation of Tetragonal Lysozyme Crystals. Biophysical Journal, 1999, 77, 1585-1593.	0.5	104
4	Double-flow focused liquid injector for efficient serial femtosecond crystallography. Scientific Reports, 2017, 7, 44628.	3.3	90
5	Improvements in lysozyme protein crystal perfection through microgravity growth. Acta Crystallographica Section D: Biological Crystallography, 1995, 51, 1099-1102.	2.5	86
6	Macromolecular crystallization in microgravity. Reports on Progress in Physics, 2005, 68, 799-853.	20.1	83
7	Cryo-trapping the six-coordinate, distorted-octahedral active site of manganese superoxide dismutase 1 1Edited by R. Huber. Journal of Molecular Biology, 2000, 296, 951-959.	4.2	77
8	Trends and Challenges in Experimental Macromolecular Crystallography. Quarterly Reviews of Biophysics, 1996, 29, 227-278.	5.7	72
9	Protein and RNA dynamical fingerprinting. Nature Communications, 2019, 10, 1026.	12.8	72
10	Small angle Xâ€ray scattering as a complementary tool for highâ€throughput structural studies. Biopolymers, 2011, 95, 517-530.	2.4	69
11	Synchrotron X-ray reciprocal-space mapping, topography and diffraction resolution studies of macromolecular crystal quality. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 868-880.	2.5	59
12	CCD video observation of microgravity crystallization: apocrustacyanin C1. Journal of Crystal Growth, 1997, 171, 219-225.	1.5	54
13	Crystallization screening: the influence of history on current practice. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 835-853.	0.8	54
14	Classification of crystallization outcomes using deep convolutional neural networks. PLoS ONE, 2018, 13, e0198883.	2.5	54
15	Whatâ€™s in a Drop? Correlating Observations and Outcomes to Guide Macromolecular Crystallization Experiments. Crystal Growth and Design, 2011, 11, 651-663.	3.0	52
16	Insights into the mechanism of X-ray-induced disulfide-bond cleavage in lysozyme crystals based on EPR, optical absorption and X-ray diffraction studies. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 2381-2394.	2.5	51
17	Non-invasive measurement of X-ray beam heating on a surrogate crystal sample. Journal of Synchrotron Radiation, 2007, 14, 109-115.	2.4	50
18	Moving in the Right Direction: Protein Vibrations Steering Function. Biophysical Journal, 2017, 112, 933-942.	0.5	50

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19	Structure of the Full-length Human RPA14/32 Complex Gives Insights into the Mechanism of DNA Binding and Complex Formation. Journal of Molecular Biology, 2007, 374, 865-876.	4.2	45
20	Lessons from high-throughput protein crystallization screening: 10 years of practical experience. Expert Opinion on Drug Discovery, 2011, 6, 465-480.	5.0	43
21	The development and application of a method to quantify the quality of cryoprotectant solutions using standard area-detector X-ray images. Journal of Applied Crystallography, 2002, 35, 538-545.	4.5	42
22	Investigating the Effect of Impurities on Macromolecule Crystal Growth in Microgravity. Crystal Growth and Design, 2001, 1, 151-158.	3.0	40
23	Sliding Clampâ€“DNA Interactions Are Required for Viability and Contribute to DNA Polymerase Management in Escherichia coli. Journal of Molecular Biology, 2009, 387, 74-91.	4.2	39
24	On the need for an international effort to capture, share and use crystallization screening data. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 253-258.	0.7	38
25	Efficient optimization of crystallization conditions by manipulation of drop volume ratio and temperature. Protein Science, 2007, 16, 715-722.	7.6	36
26	The accurate assessment of small-angle X-ray scattering data. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 45-56.	2.5	34
27	A hybrid NMR/SAXSâ€based approach for discriminating oligomeric protein interfaces using ‹scp›R‹/scp›osetta. Proteins: Structure, Function and Bioinformatics, 2015, 83, 309-317.	2.6	33
28	A test of macromolecular crystallization in microgravity: large well ordered insulin crystals. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1204-1207.	2.5	32
29	Crystallization of chicken egg white lysozyme from assorted sulfate salts. Journal of Crystal Growth, 1999, 196, 332-343.	1.5	31
30	The Structure of the PanD/PanZ Protein Complex Reveals Negative Feedback Regulation of Pantothenate Biosynthesis by Coenzyme A. Chemistry and Biology, 2015, 22, 492-503.	6.0	30
31	A quasi-Laue neutron crystallographic study of d-xylose isomerase. European Biophysics Journal, 2006, 35, 601-609.	2.2	28
32	Near-physiological-temperature serial crystallography reveals conformations of SARS-CoV-2 main protease active site for improved drug repurposing. Structure, 2021, 29, 1382-1396.e6.	3.3	28
33	The application and use of chemical space mapping to interpret crystallization screening results. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 1240-1249.	2.5	26
34	The high-mosaicity illusion: revealing the true physical characteristics of macromolecular crystals. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 986-995.	2.5	25
35	Establishing a training set through the visual analysis of crystallization trials. Part I: â^¼150â€…000 images. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 1123-1130.	2.5	25
36	Extracting trends from two decades of microgravity macromolecular crystallization history. Acta Crystallographica Section D: Biological Crystallography, 2005, 61, 763-771.	2.5	24

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37	High-Throughput PIXE as an Essential Quantitative Assay for Accurate Metalloprotein Structural Analysis: Development and Application. Journal of the American Chemical Society, 2020, 142, 185-197.	13.7	24
38	Identifying, studying and making good use of macromolecular crystals. Acta Crystallographica Section F, Structural Biology Communications, 2014, 70, 993-1008.	0.8	23
39	Partial Improvement of Crystal Quality for Microgravity-Grown Apocrustacyanin C1. Acta Crystallographica Section D: Biological Crystallography, 1997, 53, 231-239.	2.5	20
40	Crystallization of chicken egg-white lysozyme from ammonium sulfate. Acta Crystallographica Section D: Biological Crystallography, 1997, 53, 795-797.	2.5	19
41	Establishing a training set through the visual analysis of crystallization trials. Part II: crystal examples. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 1131-1137.	2.5	18
42	Statistical Analysis of Crystallization Database Links Protein Physico-Chemical Features with Crystallization Mechanisms. PLoS ONE, 2014, 9, e101123.	2.5	18
43	Protein crystal movements and fluid flows during microgravity growth. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 1045-1061.	3.4	17
44	Neutron structure of the cyclic glucose-bound xylose isomerase E186Q mutant. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 414-420.	2.5	17
45	Macromolecular Crystal Quality. Methods in Enzymology, 2003, 368, 268-288.	1.0	15
46	Lysozyme Crystal Growth Kinetics Monitored Using a Machâ€“Zehnder Interferometer. Acta Crystallographica Section D: Biological Crystallography, 1996, 52, 529-533.	2.5	14
47	Thaumatin crystallization aboard the International Space Station using liquidâ€“liquid diffusion in the Enhanced Gaseous Nitrogen Dewar (EGN). Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 751-760.	2.5	14
48	Seeing the heat â€“ preliminary studies of cryocrystallography using infrared imaging. Journal of Synchrotron Radiation, 2002, 9, 361-367.	2.4	14
49	AutoSherlock: a program for effective crystallization data analysis. Journal of Applied Crystallography, 2008, 41, 1173-1176.	4.5	14
50	Structural conservation of an ancient tRNA sensor in eukaryotic glutaminyl-tRNA synthetase. Nucleic Acids Research, 2012, 40, 3723-3731.	14.5	14
51	Structural biology in the time of COVID-19: perspectives on methods and milestones. IUCrJ, 2021, 8, 335-341.	2.2	14
52	Comparing Chemistry to Outcome: The Development of a Chemical Distance Metric, Coupled with Clustering and Hierarchal Visualization Applied to Macromolecular Crystallography. PLoS ONE, 2014, 9, e100782.	2.5	14
53	The Structure of Yeast Glutaminyl-tRNA Synthetase and Modeling of Its Interaction with tRNA. Journal of Molecular Biology, 2013, 425, 2480-2493.	4.2	13
54	CCD Video Observation of Microgravity Crystallization of Lysozyme and Correlation with Accelerometer Data. Acta Crystallographica Section D: Biological Crystallography, 1997, 53, 747-755.	2.5	12

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55	Optimizing crystal volume for neutron diffraction: D-xylose isomerase. European Biophysics Journal, 2006, 35, 621-632.	2.2	12
56	Changes to crystals ofEscherichia coliÎ²-galactosidase during room-temperature/low-temperature cycling and their relation to cryo-annealing. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 1139-1153.	2.5	12
57	Computational crystallization. Archives of Biochemistry and Biophysics, 2016, 602, 12-20.	3.0	12
58	Structural knowledge or X-ray damage? A case study on xylose isomerase illustrating both. Journal of Synchrotron Radiation, 2019, 26, 931-944.	2.4	12
59	Purification and SAXS Analysis of the Integrin Linked Kinase, PINCH, Parvin (IPP) Heterotrimeric Complex. PLoS ONE, 2013, 8, e55591.	2.5	12
60	Stationary Crystal Diffraction with a Monochromatic Convergent X-ray Source and Application for Macromolecular Crystal Data Collection. Acta Crystallographica Section D: Biological Crystallography, 1998, 54, 200-214.	2.5	11
61	BEAM-ish: a graphical user interface for the physical characterization of macromolecular crystals. Journal of Applied Crystallography, 2000, 33, 1187-1188.	4.5	11
62	Microgravity as an environment for macromolecular crystallization â€“ an outlook in the era of space stations and commercial space flight. Crystallography Reviews, 2021, 27, 3-46.	1.5	11
63	Physical and structural studies on the cryocooling of insulin crystals. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 2169-2182.	2.5	10
64	Finding a cold needle in a warm haystack: infrared imaging applied to locating cryocooled crystals in loops. Journal of Applied Crystallography, 2005, 38, 69-77.	4.5	10
65	Structural consequences of transforming growth factor beta-1 activation from near-therapeutic X-ray doses. Journal of Synchrotron Radiation, 2019, 26, 967-979.	2.4	10
66	First results of digital topography applied to macromolecular crystals. Journal of Applied Crystallography, 2004, 37, 481-485.	4.5	9
67	SAXS studies of X-ray induced disulfide bond damage: Engineering high-resolution insight from a low-resolution technique. PLoS ONE, 2020, 15, e0239702.	2.5	9
68	Glycerol concentrations required for the successful vitrification of cocktail conditions in a high-throughput crystallization screen. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 287-301.	2.5	8
69	Crystal cookery â€“ using high-throughput technologies and the grocery store as a teaching tool. Journal of Applied Crystallography, 2010, 43, 1189-1207.	4.5	7
70	Electron density maps of lysozyme calculated using synchrotron laue data comprising singles and deconvoluted multiples. Bulletin of Materials Science, 1994, 17, 1-18.	1.7	6
71	The detection and subsequent volume optimization of biological nanocrystals. Structural Dynamics, 2015, 2, 041710.	2.3	5
72	Structural insights into conformational switching in latency-associated peptide between transforming growth factor Î²-1 bound and unbound states. IUCrJ, 2020, 7, 238-252.	2.2	5

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73	Imaging modulated reflections from a semi-crystalline state of profilin:actin crystals. Journal of Applied Crystallography, 2004, 37, 327-330.	4.5	4
74	A SAXS-based approach to rationally evaluate radical scavengers â€“ toward eliminating radiation damage in solution and crystallographic studies. Journal of Synchrotron Radiation, 2021, 28, 1309-1320.	2.4	4
75	Orientation sensitive Terahertz resonances observed in protein crystals. , 2012, , .		3
76	Measurements and calculations of protein intramolecular vibrations in the THz range. , 2014, , .		3
77	From Protein Design to the Energy Landscape of a Cold Unfolding Protein. Journal of Physical Chemistry B, 2022, 126, 1212-1231.	2.6	3
78	An investigation of the perfection of lysozyme protein crystals grown in microgravity and on earth. , 1996, , 155-170.		2
79	THz microscopy measurements on inhibitor dependence of protein intramolecular modes. , 2013, , .		2
80	A new view on crystal harvesting. Journal of Applied Crystallography, 2014, 47, 1158-1161.	4.5	2
81	Time-resolved biological and perturbation chemical crystallography: Laue and monochromatic developments. , 1995, , .		1
82	Freeâ€falling Crystals: Biological Macromolecular Crystal Growth Studies in Low Earth Orbit. Asia-Pacific Journal of Chemical Engineering, 2002, 10, 491-500.	0.0	1
83	Long-Range Correlated Motion Changes with Protein-Ligand Binding. Biophysical Journal, 2014, 106, 237a.	0.5	1
84	The Daresbury Laboratory Laue Software Suite. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C50-C50.	0.3	1
85	The use of haptic interfaces and web services in crystallography: an application for a `screen to beam' interface. Journal of Applied Crystallography, 2016, 49, 2082-2090.	4.5	1
86	Image-Plate Synchrotron Laue Data Collection and Subsequent Structural Analysis of a Small Test Crystal of a Nickel-Containing Aluminophosphate. Journal of Synchrotron Radiation, 1995, 2, 22-26.	2.4	0
87	Protein crystal perfection and the crystal growth process. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C517-C517.	0.3	0
88	Correlated Motions in Protein Crystals Measured by THz Microscopy. Biophysical Journal, 2013, 104, 555a.	0.5	0
89	Measuring phonons in protein crystals. Proceedings of SPIE, 2013, , .	0.8	0
90	Long-Range Protein Vibrations Dependence on Ligand Binding: Rate Promoting Motions. Biophysical Journal, 2015, 108, 61a.	0.5	0

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91	Anisotropic absorption measurements reveal protein dynamical transition in intramolecular vibrations. , 2016, , .		0
92	Optical Absorbance Sensitivity to Rugged Energy Landscape. Biophysical Journal, 2016, 110, 513a.	0.5	0
93	The Effect of the Protein Dynamical Transition on Intramolecular Vibrations. Biophysical Journal, 2016, 110, 222a.	0.5	0
94	Importance of Protein Vibration Directionality on Function. Biophysical Journal, 2017, 112, 353a.	0.5	0
95	FRET, SAXS and Molecular Simulations Resolve the Solution Structures of Three Coexisting Conformers of Flexible RNA Four-Way Junction. Biophysical Journal, 2017, 112, 367a.	0.5	0
96	Investigating the role of the E. coli Î²â€sliding clamp in DNA polymerase Vâ€dependent translesion DNA synthesis. FASEB Journal, 2006, 20, A909.	0.5	0
97	Partial improvement of crystal quality for microgravity-grown apocrustacyanin C1. Acta Crystallographica Section D: Biological Crystallography, 1997, 53, 231-9.	2.5	0