Naomi E Chayen

List of Publications by Year
in descending order

83	3,080	159585 30	161849 54
papers	citations	h-index	g-index

87	87	87	2969
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Protein crystallization: from purified protein to diffraction-quality crystal. Nature Methods, 2008, 5, 147-153.	19.0	314
2	Experiment and theory for heterogeneous nucleation of protein crystals in a porous medium. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 597-601.	7.1	233
3	Microbatch crystallization under oil â€” a new technique allowing many small-volume crystallization trials. Journal of Crystal Growth, 1992, 122, 176-180.	1.5	225
4	Turning protein crystallisation from an art into a science. Current Opinion in Structural Biology, 2004, 14, 577-583.	5.7	173
5	Towards a â€˜universalâ€™ nucleant for protein crystallization. Trends in Biotechnology, 2009, 27, 99-106.	9.3	121
6	Protein crystallization facilitated by molecularly imprinted polymers. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11081-11086.	7.1	120
7	The role of oil in macromolecular crystallization. Structure, 1997, 5, 1269-1274.	3.3	94
8	Porous nucleating agents for protein crystallization. Nature Protocols, 2014, 9, 1621-1633.	12.0	93
9	Comparative Studies of Protein Crystallization by Vapour-Diffusion and Microbatch Techniques. Acta Crystallographica Section D: Biological Crystallography, 1998, 54, 8-15.	2.5	87
10	Methods for separating nucleation and growth in protein crystallisation. Progress in Biophysics and Molecular Biology, 2005, 88, 329-337.	2.9	70
11	Random Microseeding: A Theoretical and Practical Exploration of Seed Stability and Seeding Techniques for Successful Protein Crystallization. Crystal Growth and Design, 2011, 11, 3432-3441.	3.0	68
12	The 1.45Ã… three-dimensional structure of C-phycocyanin from the thermophilic cyanobacterium Synechococcus elongatus. Journal of Structural Biology, 2003, 141, 149-155.	2.8	67
13	Carbon-Nanotube-Based Materials for Protein Crystallization. ACS Applied Materials & Interfaces, 2009, 1, 1203-1210.	8.0	59
14	Tackling the bottleneck of protein crystallization in the post-genomic era. Trends in Biotechnology, 2002, 20, 98.	9.3	54
15	A novel technique for containerless protein crystallization. Protein Engineering, Design and Selection, 1996, 9, 927-929.	2.1	53
16	Protein crystallization for genomics: towards high-throughput optimization techniques. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 921-927.	2.5	53
17	Systematic Improvement of Protein Crystals by Determining the Supersolubility Curves of Phase Diagrams. Biophysical Journal, 2003, 84, 1218-1222.	0.5	52
18	New directions in conventional methods of protein crystallization. Progress in Biophysics and Molecular Biology, 2009, 101, 3-12.	2.9	50

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19	The OPCML Tumor Suppressor Functions as a Cell Surface Repressorâ€“Adaptor, Negatively Regulating Receptor Tyrosine Kinases in Epithelial Ovarian Cancer. Cancer Discovery, 2012, 2, 156-171.	9.4	50
20	Imprinted polymers assisting protein crystallization. Trends in Biotechnology, 2013, 31, 515-520.	9.3	46
21	Bound-solvent structures for microgravity-, ground control-, gel- and microbatch-grown hen egg-white lysozyme crystals at 1.8 Ã… resolution. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 745-752.	2.5	45
22	Control of nucleation in the crystallization of lysozyme. Protein Science, 1993, 2, 113-118.	7.6	41
23	Combination of oils and gels for enhancing the growth of protein crystals. Journal of Applied Crystallography, 2002, 35, 140-142.	4.5	40
24	Reductively PEGylated carbon nanomaterials and their use to nucleate 3D protein crystals: a comparison of dimensionality. Chemical Science, 2016, 7, 2916-2923.	7.4	40
25	Crystallization with oils: a new dimension in macromolecular crystal growth. Journal of Crystal Growth, 1999, 196, 434-441.	1.5	39
26	Improving protein crystal quality by decoupling nucleation and growth in vapor diffusion. Protein Science, 2000, 9, 755-757.	7.6	39
27	Protein crystal nucleation in pores. Scientific Reports, 2017, 7, 35821.	3.3	38
28	Attenuated Total Reflection-FT-IR Spectroscopic Imaging of Protein Crystallization. Analytical Chemistry, 2009, 81, 3769-3775.	6.5	34
29	Structural Basis for Paxillin Binding and Focal Adhesion Targeting of Î²-Parvin. Journal of Biological Chemistry, 2012, 287, 32566-32577.	3.4	33
30	Crystallogenesis studies in microgravity with the Advanced Protein Crystallization Facility on SpaceHab-01. Journal of Crystal Growth, 1997, 181, 79-96.	1.5	32
31	Droplet Microfluidics XRD Identifies Effective Nucleating Agents for Calcium Carbonate. Advanced Functional Materials, 2019, 29, 1808172.	14.9	31
32	A unique octameric structure of Axe2, an intracellular acetyl-xylooligosaccharide esterase from<i>Geobacillus stearothermophilus</i>. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 261-278.	2.5	30
33	Three-dimensional structure of the human breast cancer resistance protein (BCRP/ABCG2) in an inward-facing conformation. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 1725-1735.	2.5	30
34	Separating nucleation and growth in protein crystallization using dynamic light scattering. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 1597-1600.	2.5	29
35	Is lysozyme really the ideal model protein?. Journal of Crystal Growth, 2001, 232, 262-264.	1.5	27
36	Recent advances in methodology for the crystallization of biological macromolecules. Journal of Crystal Growth, 1999, 198-199, 649-655.	1.5	23

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37	Exploring Carbon Nanomaterial Diversity for Nucleation of Protein Crystals. Scientific Reports, 2016, 6, 20053.	3.3	23
38	Many crystal forms of human immunodeficiency virus reverse transcriptase. Journal of Molecular Biology, 1991, 217, 19-22.	4.2	22
39	A crystallization plate for controlling evaporation in hanging drops. Journal of Applied Crystallography, 2004, 37, 502-503.	4.5	21
40	Crystallization and preliminary crystallographic analysis of GanB, a GH42 intracellular Î²-galactosidase fromGeobacillus stearothermophilus. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 1114-1119.	0.7	21
41	Protein crystallization for genomics: throughput versus output. Journal of Structural and Functional Genomics, 2003, 4, 115-120.	1.2	20
42	Size and Shape Determination of Proteins in Solution by a Noninvasive Depolarized Dynamic Light Scattering Instrument. Annals of the New York Academy of Sciences, 2004, 1027, 20-27.	3.8	20
43	High-Throughput Protein Crystallization. Advances in Protein Chemistry and Structural Biology, 2009, 77, 1-22.	2.3	20
44	Micro ATR FTIR imaging of hanging drop protein crystallisation. Vibrational Spectroscopy, 2012, 63, 492-498.	2.2	20
45	Hydrophobic Interface-Assisted Protein Crystallization: Theory and Experiment. ACS Applied Materials & Interfaces, 2019, 11, 12931-12940.	8.0	19
46	The structure-function relationship of oncogenic LMTK3. Science Advances, 2020, 6, .	10.3	18
47	Characterisation of insulin analogues therapeutically available to patients. PLoS ONE, 2018, 13, e0195010.	2.5	18
48	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
49	Crystallization of and preliminary X-ray data for the negative regulator (AmiC) of the amidase operon of Pseudomonas aeruginosa. Journal of Molecular Biology, 1991, 222, 869-871.	4.2	16
50	A down-to-Earth approach. Nature, 2007, 448, 658-659.	27.8	16
51	Optimization Techniques for Automation and High Throughput. Methods in Molecular Biology, 2007, 363, 175-190.	0.9	16
52	Space-grown crystals may prove their worth. Nature, 1999, 398, 20-20.	27.8	15
53	Use of Dual Polarization Interferometry as a Diagnostic Tool for Protein Crystallization. Analytical Chemistry, 2011, 83, 7881-7887.	6.5	15
54	Automating the application of smart materials for protein crystallization. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 534-540.	2.5	15

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55	Dynamic Screening Experiments to Maximize Hits for Crystallization. Crystal Growth and Design, 2007, 7, 2171-2175.	3.0	14
56	A Linear Epitope in the N-Terminal Domain of CCR5 and Its Interaction with Antibody. PLoS ONE, 2015, 10, e0128381.	2.5	14
57	Optimization of Protein Crystallization: The OptiCryst Project. Crystal Growth and Design, 2011, 11, 2112-2121.	3.0	13
58	Microgravity Protein Crystallization. Annals of the New York Academy of Sciences, 2002, 974, 591-597.	3.8	10
59	Rigorous filtration for protein crystallization. Journal of Applied Crystallography, 2009, 42, 743-744.	4.5	10
60	Glargine and degludec: Solution behaviour of higher dose synthetic insulins. Scientific Reports, 2017, 7, 7287.	3.3	9
61	Inactivating mutations and X-ray crystal structure of the tumor suppressor OPCML reveal cancer-associated functions. Nature Communications, 2019, 10, 3134.	12.8	9
62	Choosing the Method of Crystallization to Obtain Optimal Results. Crystals, 2019, 9, 106.	2.2	7
63	Analysis of insulin glulisine at the molecular level by X-ray crystallography and biophysical techniques. Scientific Reports, 2021, 11, 1737.	3.3	7
64	Theoretical and experimental investigation of protein crystal nucleation in pores and crevices. IUCrJ, 2021, 8, 270-280.	2.2	5
65	Crystallization by Controlled Evaporation Leading to High Resolution Crystals of the C1 Domain of Cardiac Myosin Binding Protein-C (cMyBP-C). Crystal Growth and Design, 2009, 9, 1729-1732.	3.0	4
66	Grapheneâ€Based Nucleants for Protein Crystallization. Advanced Functional Materials, 2022, 32, .	14.9	4
67	Chlamydia protein Pgp3 studied at high resolution in a new crystal form. IUCrJ, 2018, 5, 439-448.	2.2	3
68	Analysis of Glulisine Crystallisation Utilising Phase Diagrams and Nucleants. Crystals, 2019, 9, 462.	2.2	2
69	X-ray crystallographic studies of RoAb13 bound to PIYDIN, a part of the N-terminal domain of C-C chemokine receptor 5. IUCrJ, 2021, 8, 678-683.	2.2	2
70	Automation of non-conventional crystallization techniques for screening and optimization. , 2007, , 45-58.		1
71	Protein Crystallization. , 2005, , 29-48.		0
72	The Role of Oil in Protein Crystallization. , 2009, , 129-144.		0

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73	Electronic carbon-nanotube-based materials for protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s294-s294.	0.3	0
74	Successful crystal formation - the journey from idea to fruition. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s47-s47.	0.1	0
75	Smart materials for increasing the success of protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1138-C1138.	0.1	0
76	Enhancing the success of crystallization: strategies and techniques. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1082-C1082.	0.1	0
77	Dual polarization interferometry in macromolecular crystallisation diagnostics. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s293-s293.	0.3	0
78	Automated seeding for the optimization of crystal quality. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s294-s294.	0.3	0
79	Upside-down protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s294-s294.	0.3	0
80	Attenuated total reflection-FT-IR spectroscopic imaging of protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s294-s295.	0.3	0
81	Abstract 1616: The OPCML tumor suppressor negatively regulates a specific repertoire of 5 receptor tyrosine kinases via a novel proteasomal mechanism, and its recombinant derivative is a potent in-vivo anticancer protein therapy. , 2011, , .		0
82	How to... enhance the success of protein crystallization. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s173-s173.	0.1	0
83	Enhancing the success of macromolecular crystallization. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e15-e15.	0.1	0