

Flora Meilleur

List of Publications by Year in descending order

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69
papers

1,764
citations

257357

24
h-index

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39
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all docs

76
docs citations

76
times ranked

1920
citing authors

#	ARTICLE	IF	CITATIONS
1	The P132H mutation in the main protease of Omicron SARS-CoV-2 decreases thermal stability without compromising catalysis or small-molecule drug inhibition. <i>Cell Research</i> , 2022, 32, 498-500.	5.7	85
2	Teaching and Education highlighted. <i>Journal of Applied Crystallography</i> , 2022, 55, 215-217.	1.9	0
3	The mechanisms of catalysis and ligand binding for the SARS-CoV-2 NSP3 macrodomain from neutron and x-ray diffraction at room temperature. <i>Science Advances</i> , 2022, 8, .	4.7	24
4	Characterization of biomass-degrading enzymes using neutron diffraction and scattering. <i>Neutron News</i> , 2021, 32, 13-14.	0.1	0
5	Preliminary results of neutron and X-ray diffraction data collection on a lytic polysaccharide monoxygenase under reduced and acidic conditions. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2021, 77, 128-133.	0.4	4
6	Metalloprotein catalysis: structural and mechanistic insights into oxidoreductases from neutron protein crystallography. <i>Acta Crystallographica Section D: Structural Biology</i> , 2021, 77, 1251-1269.	1.1	10
7	Dynamic nuclear polarization enhanced neutron crystallography: Amplifying hydrogen in biological crystals. <i>Methods in Enzymology</i> , 2020, 634, 153-175.	0.4	8
8	IMAGINE: The neutron protein crystallography beamline at the high flux isotope reactor. <i>Methods in Enzymology</i> , 2020, 634, 69-85.	0.4	21
9	Neutron Crystallography Data Collection and Processing for Modelling Hydrogen Atoms in Protein Structures. <i>Journal of Visualized Experiments</i> , 2020, , .	0.2	6
10	ORNL hosts first virtual HANDS workshop. <i>Neutron News</i> , 2020, 31, 11-12.	0.1	1
11	A beginner's guide to neutron macromolecular crystallography. <i>Biochemist</i> , 2020, 42, 16-20.	0.2	6
12	A prototype system for dynamically polarized neutron protein crystallography. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 940, 430-434.	0.7	5
13	Titration of ionizable groups in proteins using multiple neutron data sets from a single crystal: application to the small GTPase Ras. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2019, 75, 111-115.	0.4	3
14	Neutron and X-ray analysis of the Fenna-Matthews-Olson photosynthetic antenna complex from <i>Prosthecochloris aestuarii</i> . <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2019, 75, 171-175.	0.4	3
15	Structural investigation of cellobiose dehydrogenase IIA: Insights from small angle scattering into intra- and intermolecular electron transfer mechanisms. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 1031-1039.	1.1	26
16	A suite-level review of the neutron single-crystal diffraction instruments at Oak Ridge National Laboratory. <i>Review of Scientific Instruments</i> , 2018, 89, 092802.	0.6	43
17	The Neutron Macromolecular Crystallography Instruments at Oak Ridge National Laboratory: Advances, Challenges, and Opportunities. <i>Crystals</i> , 2018, 8, 388.	1.0	26
18	Neutron scattering in the biological sciences: progress and prospects. <i>Acta Crystallographica Section D: Structural Biology</i> , 2018, 74, 1129-1168.	1.1	47

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19	Next-generation diamond cell and applications to single-crystal neutron diffraction. Review of Scientific Instruments, 2018, 89, 092902.	0.6	20
20	IMAGINE: neutrons reveal enzyme chemistry. Acta Crystallographica Section D: Structural Biology, 2018, 74, 778-786.	1.1	25
21	Modulating Enzyme Activity by Altering Protein Dynamics with Solvent. Biochemistry, 2018, 57, 4263-4275.	1.2	26
22	Structural studies of <i>Neurospora crassa</i> LPMO9D and redox partner CDH11A using neutron crystallography and small-angle scattering. Carbohydrate Research, 2017, 448, 200-204.	1.1	19
23	Crystallization of a fungal lytic polysaccharide monooxygenase expressed from glycoengineered <i>Pichia pastoris</i> for X-ray and neutron diffraction. Acta Crystallographica Section F, Structural Biology Communications, 2017, 73, 70-78.	0.4	14
24	Oxygen Activation at the Active Site of a Fungal Lytic Polysaccharide Monooxygenase. Angewandte Chemie, 2017, 129, 785-788.	1.6	9
25	An extended N-H bond, driven by a conserved second-order interaction, orients the flavin N5 orbital in cholesterol oxidase. Scientific Reports, 2017, 7, 40517.	1.6	14
26	Oxygen Activation at the Active Site of a Fungal Lytic Polysaccharide Monooxygenase. Angewandte Chemie - International Edition, 2017, 56, 767-770.	7.2	78
27	Innentitelbild: Oxygen Activation at the Active Site of a Fungal Lytic Polysaccharide Monooxygenase (Angew. Chem. 3/2017). Angewandte Chemie, 2017, 129, 674-674.	1.6	0
28	Neutron structure of the T26H mutant of T4 phage lysozyme provides insight into the catalytic activity of the mutant enzyme and how it differs from that of wild type. Protein Science, 2017, 26, 1953-1963.	3.1	13
29	Neutron crystallographic studies of T4 lysozyme at cryogenic temperature. Protein Science, 2017, 26, 2098-2104.	3.1	19
30	Crystal structures of wild-type <i>Trichoderma reesei</i> Cel7A catalytic domain in open and closed states. FEBS Letters, 2016, 590, 4429-4438.	1.3	23
31	Dynamically polarized samples for neutron protein crystallography at the Spallation Neutron Source. Journal of Physics: Conference Series, 2016, 746, 012008.	0.3	2
32	Neutron protein crystallography: A complementary tool for locating hydrogens in proteins. Archives of Biochemistry and Biophysics, 2016, 602, 48-60.	1.4	83
33	Neutron Crystal Structure of RAS GTPase Puts in Question the Protonation State of the GTP γ -Phosphate. Journal of Biological Chemistry, 2015, 290, 31025-31036.	1.6	44
34	Production and characterization of recombinant perdeuterated cholesterol oxidase. Analytical Biochemistry, 2015, 485, 102-108.	1.1	9
35	Crystal structure and thermal expansion of a CsCe2Cl7 scintillator. Journal of Solid State Chemistry, 2015, 227, 142-149.	1.4	6
36	Neutron Crystal Structure of Ras GTPase sets New Paradigm for GTP Hydrolysis. FASEB Journal, 2015, 29, 893.7.	0.2	0

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37	Neutron structure of the cyclic glucose-bound xylose isomerase E186Q mutant. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 414-420.	2.5	17
38	ORNL hosts the participants of the 4th Neutrons in Structural Biology Workshop and the IMAGINE single crystal neutron diffractometer first external users. <i>Neutron News</i> , 2014, 25, 12-12.	0.1	0
39	Crystallization and preliminary X-ray diffraction analysis of <i>Hypocrea jecorina</i> Cel7A in two new crystal forms. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2014, 70, 773-776.	0.4	2
40	Refinement of macromolecular structures against neutron data with <i>SHELXL2013</i> . <i>Journal of Applied Crystallography</i> , 2014, 47, 462-466.	1.9	152
41	New insight into the structure of RNA in red clover necrotic mosaic virus and the role of divalent cations revealed by small-angle neutron scattering. <i>Archives of Virology</i> , 2013, 158, 1661-1669.	0.9	10
42	The IMAGINE instrument: first neutron protein structure and new capabilities for neutron macromolecular crystallography. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2013, 69, 2157-2160.	2.5	73
43	Neutron Scattering Techniques and Applications in Structural Biology. <i>Current Protocols in Protein Science</i> , 2013, 72, Unit17.16.	2.8	18
44	Third School on the Applications of Neutron Scattering Techniques in Structural Biology, Oak Ridge, TN. <i>Neutron News</i> , 2013, 24, 4-4.	0.1	1
45	Conformational Changes in Sindbis Virus Induced by Decreased pH Are Revealed by Small-Angle Neutron Scattering. <i>Journal of Virology</i> , 2012, 86, 1982-1987.	1.5	13
46	Open Conformation of Ezrin Bound to Phosphatidylinositol 4,5-Bisphosphate and to F-actin Revealed by Neutron Scattering. <i>Journal of Biological Chemistry</i> , 2012, 287, 37119-37133.	1.6	43
47	Rapid visualization of hydrogen positions in protein neutron crystallographic structures. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2012, 68, 35-41.	2.5	26
48	Neutron protein crystallography at ultra-low ($\leq 15\text{ K}$) temperatures. <i>Journal of Applied Crystallography</i> , 2012, 45, 686-692.	1.9	23
49	Redox-Promoting Protein Motions in Rubredoxin. <i>Journal of Physical Chemistry B</i> , 2011, 115, 8925-8936.	1.2	14
50	Scattering functions of Platonic solids. <i>Journal of Applied Crystallography</i> , 2011, 44, 545-557.	1.9	26
51	Unambiguous determination of H-atom positions: comparing results from neutron and high-resolution X-ray crystallography. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2010, 66, 558-567.	2.5	40
52	Crystallization and preliminary X-ray diffraction analysis of red clover necrotic mosaic virus. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2010, 66, 1458-1462.	0.7	3
53	The Structure of Sindbis Virus Produced from Vertebrate and Invertebrate Hosts as Determined by Small-Angle Neutron Scattering. <i>Journal of Virology</i> , 2010, 84, 5270-5276.	1.5	25
54	Characterization of image plates for neutron diffraction. <i>Journal of Applied Crystallography</i> , 2009, 42, 749-757.	1.9	19

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55	Deuterium Labeling for Neutron Structure-Function-Dynamics Analysis. <i>Methods in Molecular Biology</i> , 2009, 544, 281-292.	0.4	55
56	Preliminary neutron crystallographic analysis of selectively CH ₃ -protonated deuterated rubredoxin from <i>Pyrococcus furiosus</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2008, 64, 537-540.	0.7	13
57	New sources and instrumentation for neutrons in biology. <i>Chemical Physics</i> , 2008, 345, 133-151.	0.9	53
58	Quantum model of catalysis based on a mobile proton revealed by subatomic x-ray and neutron diffraction studies of h-aldose reductase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 1844-1848.	3.3	74
59	Expression, purification, assay, and crystal structure of perdeuterated human arginase I. <i>Archives of Biochemistry and Biophysics</i> , 2007, 465, 82-89.	1.4	65
60	A preliminary neutron diffraction study of rasburicase, a recombinant urate oxidase enzyme, complexed with 8-azaxanthin. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2006, 62, 306-309.	0.7	16
61	Comparison of hydrogen determination with X-ray and neutron crystallography in a human aldose reductase inhibitor complex. <i>European Biophysics Journal</i> , 2006, 35, 577-583.	1.2	27
62	A quasi-Laue neutron crystallographic study of d-xylose isomerase. <i>European Biophysics Journal</i> , 2006, 35, 601-609.	1.2	28
63	Optimizing crystal volume for neutron diffraction: D-xylose isomerase. <i>European Biophysics Journal</i> , 2006, 35, 621-632.	1.2	12
64	Neutron Laue macromolecular crystallography. <i>European Biophysics Journal</i> , 2006, 35, 611-620.	1.2	25
65	Production and X-ray crystallographic analysis of fully deuterated cytochrome P450cam. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2005, 61, 539-544.	2.5	29
66	Preliminary neutron diffraction studies of <i>Escherichia coli</i> dihydrofolate reductase bound to the anticancer drug methotrexate. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2005, 61, 574-579.	2.5	8
67	High-resolution neutron protein crystallography with radically small crystal volumes: application of perdeuteration to human aldose reductase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2005, 61, 1413-1417.	2.5	61
68	Structural Stability and Dynamics of Hydrogenated and Perdeuterated Cytochrome P450cam (CYP101). <i>Biochemistry</i> , 2004, 43, 8744-8753.	1.2	46
69	Interplay of Intrinsic and Environmental Effects on the Magnetic Properties of Free Radicals Issuing from H-Atom Addition to Cytosine. <i>Journal of the American Chemical Society</i> , 2001, 123, 7113-7117.	6.6	22