## Michihiro Sugahara

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Light-induced structural changes and the site of O=O bond formation in PSII caught by XFEL. Nature, 2017, 543, 131-135.	27.8	515
2	A three-dimensional movie of structural changes in bacteriorhodopsin. Science, 2016, 354, 1552-1557.	12.6	350
3	Grease matrix as a versatile carrier of proteins for serial crystallography. Nature Methods, 2015, 12, 61-63.	19.0	193
4	Redox-coupled proton transfer mechanism in nitrite reductase revealed by femtosecond crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2928-2933.	7.1	88
5	Diverse application platform for hard X-ray diffraction in SACLA (DAPHNIS): application toÂserial protein crystallography using an X-ray free-electron laser. Journal of Synchrotron Radiation, 2015, 22, 532-537.	2.4	80
6	Hydroxyethyl cellulose matrix applied to serial crystallography. Scientific Reports, 2017, 7, 703.	3.3	74
7	Capturing an initial intermediate during the P450nor enzymatic reaction using time-resolved XFEL crystallography and caged-substrate. Nature Communications, 2017, 8, 1585.	12.8	74
8	XFEL structures of the influenza M2 proton channel: Room temperature water networks and insights into proton conduction. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13357-13362.	7.1	64
9	Controlled Expansion of a Molecular Cavity in a Steroid Host Compound. Journal of the American Chemical Society, 2001, 123, 4386-4392.	13.7	54
10	A Novel Induced-fit Reaction Mechanism of Asymmetric Hot Dog Thioesterase Paal. Journal of Molecular Biology, 2005, 352, 212-228.	4.2	54
11	An isomorphous replacement method for efficient de novo phasing for serial femtosecond crystallography. Scientific Reports, 2015, 5, 14017.	3.3	54
12	Native sulfur/chlorine SAD phasing for serial femtosecond crystallography. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2519-2525.	2.5	51
13	Proteinase K-Catalyzed Synthesis of Linear and Star Oligo( <scp>l</scp> -phenylalanine) Conjugates. Biomacromolecules, 2013, 14, 3635-3642.	5.4	46
14	Oil-free hyaluronic acid matrix for serial femtosecond crystallography. Scientific Reports, 2016, 6, 24484.	3.3	46
15	The Structural Role of Cholesterol in Biological Membranes. Journal of the American Chemical Society, 2001, 123, 7939-7940.	13.7	44
16	Nucleant-mediated protein crystallization with the application of microporous synthetic zeolites. Acta Crystallographica Section D: Biological Crystallography, 2008, 64, 686-695.	2.5	44
17	Membrane protein structure determination by SAD, SIR, or SIRAS phasing in serial femtosecond crystallography using an iododetergent. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13039-13044.	7.1	43
18	Serial Femtosecond Crystallography and Ultrafast Absorption Spectroscopy of the Photoswitchable Fluorescent Protein IrisFP. Journal of Physical Chemistry Letters, 2016, 7, 882-887.	4.6	43

MICHIHIRO SUGAHARA

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19	High-viscosity sample-injection device for serial femtosecond crystallography at atmospheric pressure. Journal of Applied Crystallography, 2019, 52, 1280-1288.	4.5	43
20	Time-resolved serial femtosecond crystallography reveals early structural changes in channelrhodopsin. ELife, 2021, 10, .	6.0	41
21	Selective Sterol-Phospholipid Associations in Fluid Bilayers. Journal of the American Chemical Society, 2002, 124, 4253-4256.	13.7	34
22	Selective Association of Cholesterol with Long-Chain Phospholipids in Liquid-Ordered Bilayers:Â Support for the Existence of Lipid Rafts. Journal of the American Chemical Society, 2003, 125, 13040-13041.	13.7	34
23	Chemical crystallography by serial femtosecond X-ray diffraction. Nature, 2022, 601, 360-365.	27.8	33
24	Comparing serial X-ray crystallography and microcrystal electron diffraction (MicroED) as methods for routine structure determination from small macromolecular crystals. IUCrJ, 2020, 7, 306-323.	2.2	32
25	Derivatization of Proteinase K with Heavy Atoms Enhances Its Thermal Stability. ACS Catalysis, 2016, 6, 3036-3046.	11.2	28
26	Redox-coupled structural changes in nitrite reductase revealed by serial femtosecond and microfocus crystallography. Journal of Biochemistry, 2016, 159, 527-538.	1.7	26
27	High-throughput crystallization-to-structure pipeline at RIKEN SPring-8 Center. Journal of Structural and Functional Genomics, 2008, 9, 21-28.	1.2	25
28	Atomic resolution structure of serine protease proteinase K at ambient temperature. Scientific Reports, 2017, 7, 45604.	3.3	25
29	Capturing structural changes of the S <sub>1</sub> to S <sub>2</sub> transition of photosystem II using time-resolved serial femtosecond crystallography. IUCrJ, 2021, 8, 431-443.	2.2	24
30	Experimental phase determination with selenomethionine or mercury-derivatization in serial femtosecond crystallography. IUCrJ, 2017, 4, 639-647.	2.2	24
31	Serial crystallography captures dynamic control of sequential electron and proton transfer events in a flavoenzyme. Nature Chemistry, 2022, 14, 677-685.	13.6	24
32	Systematic Structural Study of Asymmetric Supramolecular Assembly by a Series of Bile Acid Derivatives with Different Side-Chain Lengths. Crystal Growth and Design, 2004, 4, 263-272.	3.0	22
33	Heavy-atom Database System: a tool for the preparation of heavy-atom derivatives of protein crystals based on amino-acid sequence and crystallization conditions. Acta Crystallographica Section D: Biological Crystallography, 2005, 61, 1302-1305.	2.5	15
34	Crystal structure of dehydroquinate synthase from Thermus thermophilus HB8 showing functional importance of the dimeric state. Proteins: Structure, Function and Bioinformatics, 2004, 58, 249-252.	2.6	14
35	HATODAS II $\hat{a} \in$ heavy-atom database system with potentiality scoring. Journal of Applied Crystallography, 2009, 42, 540-544.	4.5	12
36	Effect of Heavy Atoms on the Thermal Stability of α-Amylase from Aspergillus oryzae. PLoS ONE, 2013, 8, e57432.	2.5	11

MICHIHIRO SUGAHARA

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37	A Technique for High-Throughput Protein Crystallization in Ionically Cross-Linked Polysaccharide Gel Beads for X-Ray Diffraction Experiments. PLoS ONE, 2014, 9, e95017.	2.5	11
38	Conformational alterations in unidirectional ion transport of a light-driven chloride pump revealed using X-ray free electron lasers. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	11
39	Drastic Increase in the Flexibility of Open Host Frameworks of a Steroidal Host Compound upon Shortening Its Spacer. European Journal of Organic Chemistry, 2004, 2004, 981-994.	2.4	10
40	Structure of ATP-dependent phosphoenolpyruvate carboxykinase fromThermus thermophilusHB8 showing the structural basis of induced fit and thermostability. Acta Crystallographica Section D: Biological Crystallography, 2005, 61, 1500-1507.	2.5	10
41	Novel versatile cryoprotectants for heavy-atom derivatization of protein crystals. Acta Crystallographica Section D: Biological Crystallography, 2006, 62, 520-526.	2.5	10
42	Packing Space Expansion of Protein Crystallization Screening with Synthetic Zeolite as a Heteroepitaxic Nucleant. Crystal Growth and Design, 2011, 11, 110-120.	3.0	10
43	Viscosity-adjustable grease matrices for serial nanocrystallography. Scientific Reports, 2020, 10, 1371.	3.3	10
44	Inclusion Abilities of Bile Acids with Different Side Chain Length. Molecular Crystals and Liquid Crystals, 2001, 356, 155-162.	0.3	9
45	Subatomic structure of hyper-sweet thaumatin D21N mutant reveals the importance of flexible conformations for enhanced sweetness. Biochimie, 2019, 157, 57-63.	2.6	8
46	Protein–ligand complex structure from serial femtosecond crystallography using soaked thermolysin microcrystals and comparison with structures from synchrotron radiation. Acta Crystallographica Section D: Structural Biology, 2017, 73, 702-709.	2.3	8
47	Sample Delivery Techniques for Serial Crystallography. , 2018, , 109-184.		6
48	Autolabo: an automated system for ligand-soaking experiments with protein crystals. Journal of Applied Crystallography, 2010, 43, 940-944.	4.5	5
49	A fibre-based crystal mounting technique for protein cryocrystallography. Journal of Applied Crystallography, 2012, 45, 362-366.	4.5	5
50	Improvement of Production and Isolation of Human Neuraminidase-1 <i>in Cellulo</i> Crystals. ACS Applied Bio Materials, 2019, 2, 4941-4952.	4.6	5
51	Integrated database of information from structural genomics experiments. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 914-919.	2.5	2
52	Microcrystal preparation for serial femtosecond X-ray crystallography of bacterial copper amine oxidase. Acta Crystallographica Section F, Structural Biology Communications, 2021, 77, 356-363.	0.8	2
53	Sugar-Based Lipid Headgroups:  How Sticky Are They?. Langmuir, 2002, 18, 981-983.	3.5	1
54	Microcrystal-carrier matrices for serial crystallography. Journal of Biological Macromolecules, 2018, 18, 15-22.	0.3	0