Hiroshi Sugimoto

List of Publications by Year
in descending order

114	4,820	87723	102304
papers	citations	38 h-index	66 g-index

124	124	124	5187
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantitative numerical analysis of micro-thermal transpiration pump using kinetic theory of gases. Microfluidics and Nanofluidics, 2022, 26, 1.	1.0	3
2	InnenrÃ¼cktitelbild: A Hemeâ€Acquisition Protein Reconstructed with a Cobalt 5â€Oxaporphyrinium Cation and Its Growthâ€Inhibition Activity Toward Multidrugâ€Resistant Pseudomonas aeruginosa (Angew. Chem. 7/2022). Angewandte Chemie, 2022, 134, .	1.6	0
3	A Hemeâ€Acquisition Protein Reconstructed with a Cobalt 5â€Oxaporphyrinium Cation and Its Growthâ€Inhibition Activity Toward Multidrugâ€Resistant Pseudomonas aeruginosa. Angewandte Chemie - International Edition, 2022, 61, e202112456.	7.2	6
4	A Hemeâ€Acquisition Protein Reconstructed with a Cobalt 5â€Oxaporphyrinium Cation and Its Growthâ€Inhibition Activity Toward Multidrugâ€Resistant Pseudomonas aeruginosa. Angewandte Chemie, 2022, 134, .	1.6	1
5	Tetraphenylporphyrin Enters the Ring: First Example of a Complex between Highly Bulky Porphyrins and a Protein**. ChemBioChem, 2022, 23, .	1.3	4
6	Metabolism of non-steroidal anti-inflammatory drugs (NSAIDs) by Streptomyces griseolus CYP105A1 and its variants. Drug Metabolism and Pharmacokinetics, 2022, 45, 100455.	1.1	1
7	Spatially restricted substrate-binding site of cortisol-synthesizing CYP11B1 limits multiple hydroxylations and hinders aldosterone synthesis. Current Research in Structural Biology, 2021, 3, 192-205.	1.1	1
8	Heme controls the structural rearrangement of its sensor protein mediating the hemolytic bacterial survival. Communications Biology, 2021, 4, 467.	2.0	8
9	XFEL Crystal Structures of Peroxidase Compound II. Angewandte Chemie - International Edition, 2021, 60, 14578-14585.	7.2	18
10	XFEL Crystal Structures of Peroxidase Compound II. Angewandte Chemie, 2021, 133, 14699-14706.	1.6	0
11	Short-lived intermediate in N ₂ O generation by P450 NO reductase captured by time-resolved IR spectroscopy and XFEL crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
12	Time-resolved studies of metalloproteins using X-ray free electron laser radiation at SACLA. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129466.	1.1	23
13	Systematic Evolution of Decoy Molecules for the Highly Efficient Hydroxylation of Benzene and Small Alkanes Catalyzed by Wild-Type Cytochrome P450BM3. ACS Catalysis, 2020, 10, 9136-9144.	5.5	22
14	Serial Femtosecond Zero Dose Crystallography Captures a Waterâ€Free Distal Heme Site in a Dyeâ€Decolorising Peroxidase to Reveal a Catalytic Role for an Arginine in Fe^{IV}=O Formation. Angewandte Chemie - International Edition, 2020, 59, 21656-21662.	7.2	24
15	Serial Femtosecond Zero Dose Crystallography Captures a Waterâ€Free Distal Heme Site in a Dyeâ€Decolorising Peroxidase to Reveal a Catalytic Role for an Arginine in Fe^{IV}=O Formation. Angewandte Chemie, 2020, 132, 21840-21846.	1.6	4
16	Crystals in Minutes: Instant Onâ€Site Microcrystallisation of Various Flavours of the CYP102A1 (P450BM3) Haem Domain. Angewandte Chemie - International Edition, 2020, 59, 7611-7618.	7.2	13
17	X-ray Crystallography and Electron Paramagnetic Resonance Spectroscopy Reveal Active Site Rearrangement of Cold-Adapted Inorganic Pyrophosphatase. Scientific Reports, 2020, 10, 4368.	1.6	6
18	Kristalle in Minutenschnelle: Sofortige Mikrokristallisation verschiedenster Varianten der CYP102A1â€(P450BM3)â€HÃmdomÃne. Angewandte Chemie, 2020, 132, 7681-7689.	1.6	6

#	Article	IF	Citations
19	Hijacking the Heme Acquisition System of Pseudomonas aeruginosa for the Delivery of Phthalocyanine as an Antimicrobial. ACS Chemical Biology, 2019, 14, 1637-1642.	1.6	27
20	Chemo-Mechanical Coupling in the Transport Cycle of a Heme ABC Transporter. Journal of Physical Chemistry B, 2019, 123, 7270-7281.	1.2	6
21	UV Resonance Raman Characterization of a Substrate Bound to Human Indoleamine 2,3-Dioxygenase 1. Biophysical Journal, 2019, 117, 706-716.	0.2	1
22	Highly malleable haem-binding site of the haemoprotein HasA permits stable accommodation of bulky tetraphenylporphycenes. RSC Advances, 2019, 9, 18697-18702.	1.7	13
23	Identification of an internal cavity in the PhoQ sensor domain for PhoQ activity and SafA-mediated control. Bioscience, Biotechnology and Biochemistry, 2019, 83, 684-694.	0.6	16
24	Dose-resolved serial synchrotron and XFEL structures of radiation-sensitive metalloproteins. IUCrJ, 2019, 6, 543-551.	1.0	65
25	High-throughput structures of proteinâ€“ligand complexes at room temperature using serial femtosecond crystallography. IUCrJ, 2019, 6, 1074-1085.	1.0	36
26	Hemozoin produced by mammals confers heme tolerance. ELife, 2019, 8, .	2.8	38
27	Structure and Molecular Mechanism of the Bacterial Heme Transporter. Seibutsu Butsuri, 2018, 58, 022-023.	0.0	0
28	Protein engineering of CYP105s for their industrial uses. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 23-31.	1.1	16
29	Î±-Oxidative decarboxylation of fatty acids catalysed by cytochrome P450 peroxygenases yielding shorter-alkyl-chain fatty acids. Catalysis Science and Technology, 2018, 8, 434-442.	2.1	27
30	Reconstitution of full-length P450BM3 with an artificial metal complex by utilising the transpeptidase Sortase A. Chemical Communications, 2018, 54, 7892-7895.	2.2	23
31	Structural basis for promotion of duodenal iron absorption by enteric ferric reductase with ascorbate. Communications Biology, 2018, 1, 120.	2.0	30
32	Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie - International Edition, 2017, 56, 10324-10329.	7.2	62
33	Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie, 2017, 129, 10460-10465.	1.6	23
34	Production of an active form of vitamin D 2 by genetically engineered CYP105A1. Biochemical and Biophysical Research Communications, 2017, 486, 336-341.	1.0	13
35	Dynamics of nitric oxide controlled by protein complex in bacterial system. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9888-9893.	3.3	35
36	Structures of the Heme Acquisition Protein HasA with Iron(III)â€5,15â€Diphenylporphyrin and Derivatives Thereof as an Artificial Prosthetic Group. Angewandte Chemie - International Edition, 2017, 56, 15279-15283.	7.2	15

#	Article	IF	Citations
37	Structural basis for binding and transfer of heme in bacterial hemeâ€acquisition systems. Proteins: Structure, Function and Bioinformatics, 2017, 85, 2217-2230.	1.5	6
38	Structures of the Heme Acquisition Protein HasA with Iron(III)â€5,15â€Diphenylporphyrin and Derivatives Thereof as an Artificial Prosthetic Group. Angewandte Chemie, 2017, 129, 15481-15485.	1.6	6
39	Manganese(V) Porphycene Complex Responsible for Inert Câ€“H Bond Hydroxylation in a Myoglobin Matrix. Journal of the American Chemical Society, 2017, 139, 18460-18463.	6.6	60
40	InnenrÃ¼cktitelbild: Structures of the Heme Acquisition Protein HasA with Iron(III)â€5,15â€Diphenylporphyrin and Derivatives Thereof as an Artificial Prosthetic Group (Angew. Chem.) Tj ETQq1 0 0 rgBT /Overloc	1.6	0
41	Capturing an initial intermediate during the P450nor enzymatic reaction using time-resolved XFEL crystallography and caged-substrate. Nature Communications, 2017, 8, 1585.	5.8	74
42	Control of stereoselectivity of benzylic hydroxylation catalysed by wild-type cytochrome P450BM3 using decoy molecules. Catalysis Science and Technology, 2017, 7, 3332-3338.	2.1	30
43	A nearly on-axis spectroscopic system for simultaneouslyÂmeasuring UVâ€“visible absorption and X-ray diffraction in the SPring-8 structural genomics beamline. Journal of Synchrotron Radiation, 2016, 23, 334-338.	1.0	4
44	A substrate-binding-state mimic of H₂O₂-dependent cytochrome P450 produced by one-point mutagenesis and peroxygenation of non-native substrates. Catalysis Science and Technology, 2016, 6, 5806-5811.	2.1	49
45	Crystal structure of bacterial haem importer complex in the inward-facing conformation. Nature Communications, 2016, 7, 13411.	5.8	40
46	Activation of Wild-Type Cytochrome P450BM3 by the Next Generation of Decoy Molecules: Enhanced Hydroxylation of Gaseous Alkanes and Crystallographic Evidence. ACS Catalysis, 2015, 5, 150-156.	5.5	73
47	Structure of the response regulator ChrA in the haem-sensing two-component system ofCorynebacterium diphtheriae. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 966-971.	0.4	5
48	Structures of reduced and ligandâ€bound nitric oxide reductase provide insights into functional differences in respiratory enzymes. Proteins: Structure, Function and Bioinformatics, 2014, 82, 1258-1271.	1.5	29
49	Inhibition of Heme Uptake in Pseudomonas aeruginosa by its Hemophore (HasA_p) Bound to Synthetic Metal Complexes. Angewandte Chemie - International Edition, 2014, 53, 2862-2866.	7.2	34
50	H₂O₂-dependent substrate oxidation by an engineered diiron site in a bacterial hemerythrin. Chemical Communications, 2014, 50, 3421-3423.	2.2	9
51	Determination of damage-free crystal structure of an X-rayâ€“sensitive protein using an XFEL. Nature Methods, 2014, 11, 734-736.	9.0	237
52	Palladium-Nanoparticle-Catalyzed 1,7-Palladium Migration Involving Câ€“H Activation, Followed by Intramolecular Amination: Regioselective Synthesis of N1-Arylbenzotriazoles and an Evaluation of Their Inhibitory Activity toward Indoleamine 2,3-Dioxygenase. Journal of Organic Chemistry, 2014, 79, 6366-6371.	1.7	43
53	Crystal Structure, Exogenous Ligand Binding, and Redox Properties of an Engineered Diiron Active Site in a Bacterial Hemerythrin. Inorganic Chemistry, 2013, 52, 13014-13020.	1.9	10
54	Resonance Raman study on indoleamine 2,3-dioxygenase: Control of reactivity by substrate-binding. Chemical Physics, 2013, 419, 178-183.	0.9	1

#	Article	IF	Citations
55	Structural basis for nitrous oxide generation by bacterial nitric oxide reductases. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1195-1203.	1.8	47
56	Structural Basis for the Transcriptional Regulation of Heme Homeostasis in Lactococcus lactis. Journal of Biological Chemistry, 2012, 287, 30755-30768.	1.6	55
57	Diversity and Substrate Specificity in the Structures of Steroidogenic Cytochrome P450 Enzymes. Biological and Pharmaceutical Bulletin, 2012, 35, 818-823.	0.6	39
58	Crystal structure of quinol-dependent nitric oxide reductase from Geobacillus stearothermophilus. Nature Structural and Molecular Biology, 2012, 19, 238-245.	3.6	106
59	Structural basis for oxygen sensing and signal transduction of the heme-based sensor protein Aer2 from Pseudomonas aeruginosa. Chemical Communications, 2012, 48, 6523.	2.2	29
60	Chiralâ€Substrateâ€Assisted Stereoselective Epoxidation Catalyzed by H₂O₂â€Dependent Cytochrome P450_{SPÎ±}. Chemistry - an Asian Journal, 2012, 7, 2286-2293.	1.7	26
61	Ice-binding site of snow mold fungus antifreeze protein deviates from structural regularity and high conservation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9360-9365.	3.3	92
62	Molecular structure and function of bacterial nitric oxide reductase. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 680-687.	0.5	52
63	Resonance Raman study on the oxygenated and the ferryl-oxo species of indoleamine 2,3-dioxygenase during catalytic turnover. Faraday Discussions, 2011, 148, 239-247.	1.6	17
64	Crystal Structure and Spectroscopic Studies of a Stable Mixed-Valent State of the Hemerythrin-like Domain of a Bacterial Chemotaxis Protein. Inorganic Chemistry, 2011, 50, 4892-4899.	1.9	20
65	Crystal structure of the carbon monoxide complex of human cytoglobin. Proteins: Structure, Function and Bioinformatics, 2011, 79, 1143-1153.	1.5	22
66	Bioconversion of vitamin D to its active form by bacterial or mammalian cytochrome P450. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 249-256.	1.1	30
67	Crystal Structure of H2O2-dependent Cytochrome P450SPÎ± with Its Bound Fatty Acid Substrate. Journal of Biological Chemistry, 2011, 286, 29941-29950.	1.6	103
68	Identification of the Feâ€“O2 and the Fe=O Heme Species for Indoleamine 2,3-Dioxygenase during Catalytic Turnover. Chemistry Letters, 2010, 39, 36-37.	0.7	29
69	Threeâ€step hydroxylation of vitamin D₃ by a genetically engineered CYP105A1. FEBS Journal, 2010, 277, 3999-4009.	2.2	33
70	Structural Basis of Biological N ₂ O Generation by Bacterial Nitric Oxide Reductase. Science, 2010, 330, 1666-1670.	6.0	292
71	A Specific Interaction ofl-Tryptophan with CO of CO-Bound Indoleamine 2,3-Dioxygenase Identified by Resonance Raman Spectroscopy. Biochemistry, 2010, 49, 10081-10088.	1.2	6
72	ONIOM Study on a Missing Piece in Our Understanding of Heme Chemistry: Bacterial Tryptophan 2,3-Dioxygenase with Dual Oxidants. Journal of the American Chemical Society, 2010, 132, 11993-12005.	6.6	74

#	Article	IF	Citations
73	Design of Novel Hypoxia-Targeting IDO Hybrid Inhibitors Conjugated with an Unsubstituted L-TRP as an IDO Affinity Moiety. Advances in Experimental Medicine and Biology, 2010, 662, 415-421.	0.8	5
74	X-ray Crystal Structure of Michaelis Complex of Aldoxime Dehydratase. Journal of Biological Chemistry, 2009, 284, 32089-32096.	1.6	55
75	Cooperative Binding of l-Trp to Human Tryptophan 2,3-Dioxygenase: Resonance Raman Spectroscopic Analysis. Journal of Biochemistry, 2009, 145, 505-515.	0.9	18
76	Structure of PAS-Linked Histidine Kinase and the Response Regulator Complex. Structure, 2009, 17, 1333-1344.	1.6	93
77	The crystal structure of a xyloglucanâ€specific endoâ€Î²â€1,4â€glucanase from Geotrichum sp. M128 xyloglucanase reveals a key amino acid residue for substrate specificity. FEBS Journal, 2009, 276, 5094-5100.	2.2	24
78	Synthesis and biological activity of 1-methyl-tryptophan-tirapazamine hybrids as hypoxia-targeting indoleamine 2,3-dioxygenase inhibitors. Bioorganic and Medicinal Chemistry, 2008, 16, 8661-8669.	1.4	24
79	Crystal Structure and Mutational Analysis of Ca2+-Independent Type II Antifreeze Protein from Longsnout Poacher, Brachyopsis rostratus. Journal of Molecular Biology, 2008, 382, 734-746.	2.0	66
80	Density Functional Theory Study on a Missing Piece in Understanding of Heme Chemistry: The Reaction Mechanism for Indoleamine 2,3-Dioxygenase and Tryptophan 2,3-Dioxygenase. Journal of the American Chemical Society, 2008, 130, 12299-12309.	6.6	80
81	Structure-Based Design of a Highly Active Vitamin D Hydroxylase from Streptomyces griseolus CYP105A1. Biochemistry, 2008, 47, 11964-11972.	1.2	46
82	Crystal Structure of CYP105A1 (P450SU-1) in Complex with 1Î±,25-Dihydroxyvitamin D₃. Biochemistry, 2008, 47, 4017-4027.	1.2	78
83	Crystal structures and catalytic mechanism of cytochrome P450 StaP that produces the indolocarbazole skeleton. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11591-11596.	3.3	108
84	The Structural Basis for the Exo-mode of Action in GH74 Oligoxyloglucan Reducing End-specific Cellobiohydrolase. Journal of Molecular Biology, 2007, 370, 53-62.	2.0	52
85	Structure and Ligand Binding Properties of Myoglobins Reconstituted with Monodepropionated Heme:â€‰ Functional Role of Each Heme Propionate Side Chain,. Biochemistry, 2007, 46, 9406-9416.	1.2	42
86	X-ray structure and reaction mechanism of human indoleamine 2,3-dioxygenase. International Congress Series, 2007, 1304, 85-97.	0.2	0
87	Crystal Structure and Peroxidase Activity of Myoglobin Reconstituted with Iron Porphycene. Inorganic Chemistry, 2006, 45, 10530-10536.	1.9	89
88	The Signaling Pathway in Histidine Kinase and the Response Regulator Complex Revealed by X-ray Crystallography and Solution Scattering. Journal of Molecular Biology, 2006, 362, 123-139.	2.0	27
89	High-resolution structure of human cytoglobin: identification of extra N- and C-termini and a new dimerization mode. Acta Crystallographica Section D: Biological Crystallography, 2006, 62, 671-677.	2.5	28
90	Crystallization and preliminary crystallographic studies of human indoleamine 2,3-dioxygenase. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 221-223.	0.7	8

#	Article	IF	Citations
91	Crystallization and preliminary X-ray crystallographic analysis of Ca2+-independent and Ca2+-dependent species of the type II antifreeze protein. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 538-541.	0.7	7
92	Crystal structure of human indoleamine 2,3-dioxygenase: Catalytic mechanism of O2 incorporation by a heme-containing dioxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2611-2616.	3.3	389
93	Structural Characterization of the Proximal and Distal Histidine Environment of Cytoglobin and Neuroglobin. Biochemistry, 2005, 44, 13257-13265.	1.2	62
94	Structural Basis of Human Cytoglobin for Ligand Binding. Journal of Molecular Biology, 2004, 339, 873-885.	2.0	106
95	Substrate Recognition and Molecular Mechanism of Fatty Acid Hydroxylation by Cytochrome P450 from Bacillus subtilis. Journal of Biological Chemistry, 2003, 278, 9761-9767.	1.6	198
96	BIFURCATION STUDIES OF FLOWS OF A GAS BETWEEN ROTATING COAXIAL CIRCULAR CYLINDERS WITH EVAPORATION AND CONDENSATION BY THE BOLTZMANN SYSTEM. Transport Theory and Statistical Physics, 2002, 31, 299-332.	0.4	8
97	Crystal Structure of 1-Aminocyclopropane-1-carboxylate Deaminase from Hansenula saturnus. Journal of Biological Chemistry, 2000, 275, 34557-34565.	1.6	52
98	Cylindrical Couette flows of a rarefied gas with evaporation and condensation: Reversal and bifurcation of flows. Physics of Fluids, 1999, 11, 476-490.	1.6	22
99	Crystal Structure of Humand-Dopachrome Tautomerase, a Homologue of Macrophage Migration Inhibitory Factor, at 1.54 Ã... Resolutionâ€,â€¡. Biochemistry, 1999, 38, 3268-3279.	1.2	117
100	Molecular Cloning of Humand-Dopachrome Tautomerase cDNA: N-terminal Proline Is Essential for Enzyme Activation. Biochemical and Biophysical Research Communications, 1998, 243, 538-544.	1.0	44
101	The BÃ©nard problem for a rarefied gas: Formation of steady flow patterns and stability of array of rolls. Physics of Fluids, 1997, 9, 3898-3914.	1.6	38
102	Crystallization and Preliminary X-Ray Analysis of Humand-Dopachrome Tautomerase. Journal of Structural Biology, 1997, 120, 105-108.	1.3	16
103	Crystal structure of macrophage migration inhibitory factor from human Ã... lymphocyte at 2.1 Ã... resolution. FEBS Letters, 1996, 389, 145-148.	1.3	57
104	Crystal structure of the macrophage migration inhibitory factor from rat liver. Nature Structural Biology, 1996, 3, 259-266.	9.7	173
105	The behavior of a gas in the continuum limit in the light of kinetic theory: The case of cylindrical Couette flows with evaporation and condensation. Physics of Fluids, 1996, 8, 3403-3413.	1.6	22
106	Evaporation of a rarefied gas from a cylindrical condensed phase into a vacuum. Physics of Fluids, 1995, 7, 2072-2085.	1.6	26
107	Crystallization of Rat Liver Macrophage Migration Inhibitory Factor for MAD Analysis. Journal of Structural Biology, 1995, 115, 331-334.	1.3	22
108	Kinetic Theory Analysis of Steady Evaporating Flows from a Cylindrical Condensed Phase into a Vacuum.. Shinku/Journal of the Vacuum Society of Japan, 1994, 37, 147-150.	0.2	0

#	Article	IF	Citations
109	Kinetic theory analysis of steady evaporating flows from a spherical condensed phase into a vacuum. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1491-1511.	1.6	66
110	Numerical analysis of steady flows of a gas evaporating from its cylindrical condensed phase on the basis of kinetic theory. Physics of Fluids A, Fluid Dynamics, 1992, 4, 419-440.	1.6	69
111	Numerical analysis of steady flows of a gas condensing on or evaporating from its plane condensed phase on the basis of kinetic theory: Effect of gas motion along the condensed phase. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2260-2275.	1.6	63
112	Strong evaporation from a cylindrical condensed phase.. Shinku/Journal of the Vacuum Society of Japan, 1991, 34, 387-389.	0.2	0
113	Strong evaporation from a plane condensed phase. II.. Shinku/Journal of the Vacuum Society of Japan, 1989, 32, 214-218.	0.2	6
114	Strong evaporation from a plane condensed phase.. Shinku/Journal of the Vacuum Society of Japan, 1988, 31, 420-423.	0.2	8