Takeshi Sakurai

List of Publications by Year
in descending order

100 papers	2,192 citations	236925 25 h-index	265206 42 g-index
102 all docs	102 docs citations	102 times ranked	1550 citing authors

#	Article	IF	Citations
1	Basic and applied features of multicopper oxidases, CueO, bilirubin oxidase, and laccase. Chemical Record, 2007, 7, 220-229.	5.8	194
2	Effects of axial ligand mutation of the type I copper site in bilirubin oxidase on direct electron transfer-type bioelectrocatalytic reduction of dioxygen. Journal of Electroanalytical Chemistry, 2007, 601, 119-124.	3.8	104
3	Structure and Function of the Engineered Multicopper Oxidase CueO from Escherichia coliâ€”Deletion of the Methionine-Rich Helical Region Covering the Substrate-Binding Site. Journal of Molecular Biology, 2007, 373, 141-152.	4.2	103
4	Myrothecium verrucaria Bilirubin Oxidase and Its Mutants for Potential Copper Ligands. Biochemistry, 1999, 38, 3034-3042.	2.5	94
5	Characterization of Nitrite Reductase from a Denitrifier, Alcaligenes Sp. NCIB 11015. A Novel Copper Protein1. Journal of Biochemistry, 1984, 96, 447-454.	1.7	91
6	Four-electron Reduction of Dioxygen by a Multicopper Oxidase, CueO, and Roles of Asp112 and Glu506 Located Adjacent to the Trinuclear Copper Center. Journal of Biological Chemistry, 2009, 284, 14405-14413.	3.4	66
7	Purification and characterization of dissimilatory nitrate reductase from a denitrifying halophilic archaeon,Haloarcula marismortui. FEBS Letters, 2000, 470, 216-220.	2.8	64
8	Spectroscopic and Kinetic Studies on the Oxygen-centered Radical Formed during the Four-electron Reduction Process of Dioxygen byRhus vernicifera Laccase. Journal of Biological Chemistry, 1999, 274, 32718-32724.	3.4	60
9	Bioelectrocatalytic Reduction of O2Catalyzed by CueO fromEscherichia coliAdsorbed on a Highly Oriented Pyrolytic Graphite Electrode. Chemistry Letters, 2007, 36, 132-133.	1.3	55
10	Isolation and Characterization of Nitric Oxide Reductase fromParacoccus halodenitrificansâ€. Biochemistry, 1997, 36, 13809-13815.	2.5	54
11	Point Mutations at the Type I Cu Ligands, Cys457 and Met467, and at the Putative Proton Donor, Asp105, inMyrothecium verrucariaBilirubin Oxidase and Reactions with Dioxygenâ€. Biochemistry, 2005, 44, 7004-7012.	2.5	53
12	Purification, Characterization, and Genetic Analysis of Cu-Containing Dissimilatory Nitrite Reductase from a Denitrifying Halophilic Archaeon, Haloarcula marismortui. Journal of Bacteriology, 2001, 183, 4149-4156.	2.2	49
13	Mutations at Asp112 adjacent to the trinuclear Cu center in CueO as the proton donor in the four-electron reduction of dioxygen. FEBS Letters, 2006, 580, 4069-4072.	2.8	44
14	Primary structure of a Japanese lacquer tree laccase as a prototype enzyme of multicopper oxidases. Journal of Inorganic Biochemistry, 2002, 91, 125-131.	3.5	43
15	Some properties of a blue copper protein â€˜plantacyaninâ€™ from cucumber peel. FEBS Letters, 1982, 147, 220-224.	2.8	42
16	Direct electrochemistry of the blue copper proteins pseudoazurin, plantacyanin, and stellacyanin. Inorganic Chemistry, 1990, 29, 4715-4718.	4.0	34
17	Enhancement of Laccase Activity through the Construction and Breakdown of a Hydrogen Bond at the Type I Copper Center in <i>Escherichia coli</i> CueO and the Deletion Mutant Î”Î±5âˆ’7 CueO. Biochemistry, 2011, 50, 558-565.	2.5	33
18	Characterization of cucumber ascorbate oxidase and its reaction with hexacyanoferrate (II). Archives of Biochemistry and Biophysics, 1985, 241, 179-186.	3.0	32

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19	Roles of Four Iron Centers inParacoccus halodenitrificansNitric Oxide Reductase. Biochemical and Biophysical Research Communications, 1998, 251, 248-251.	2.1	30
20	Genomic DNA Cloning of the Region Encoding Nitric Oxide Reductase inParacoccus halodenitrificansand a Structure Model Relevant to Cytochrome Oxidase. Biochemical and Biophysical Research Communications, 1998, 243, 400-406.	2.1	28
21	High-level expression of Myrothecium verrucaria bilirubin oxidase in Pichia pastoris, and its facile purification and characterization. Protein Expression and Purification, 2005, 41, 77-83.	1.3	28
22	Kinetics and Mechanisms of Photoinduced Electron-Transfer Reaction of Zinc Myoglobin. Intracomplex vs. Intermolecular Quenching Controlled by Conformational Change Associated with Charge and Steric Bulk of Quenchers. Bulletin of the Chemical Society of Japan, 1994, 67, 421-431.	3.2	26
23	An Oâ€Centered Structure of the Trinuclear Copper Center in the Cys500Ser/Glu506Gln Mutant of CueO and Structural Changes in Low to High Xâ€Ray Dose Conditions. Angewandte Chemie - International Edition, 2012, 51, 1861-1864.	13.8	26
24	Spectroscopic characterization of cobalt(II)-substituted Achromobacter pseudoazurin: similarity of the metal center in Co(II)-pseudoazurin to those in Co(II)-plastocyanin and Co(II)-plantacyanin. Inorganic Chemistry, 1989, 28, 802-804.	4.0	25
25	Electrical communication between horse heart cytochrome c and electrodes in the presence of DNA or RNA. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1990, 287, 179-184.	0.1	25
26	Reduction and Oxidation Processes of Blue Copper Proteins, Azurin, Pseudoazurin, Umecyanin, Stellacyanin, Plantacyanin, and Plastocyanin Approached by Cyclic and Potential Step Voltammetries. Bulletin of the Chemical Society of Japan, 1996, 69, 2855-2862.	3.2	25
27	Crystal structure analysis of <i>Bacillus subtilis</i> ferredoxinâ€NADP⁺ oxidoreductase and the structural basis for its substrate selectivity. Protein Science, 2010, 19, 2279-2290.	7.6	25
28	Asymmetric Dimeric Structure of Ferredoxin-NAD(P)+ Oxidoreductase from the Green Sulfur Bacterium Chlorobaculum tepidum: Implications for Binding Ferredoxin and NADP+. Journal of Molecular Biology, 2010, 401, 403-414.	4.2	25
29	Spectroscopic aspects of copper binding site in bovine serum amine oxidase. FEBS Letters, 1980, 116, 17-20.	2.8	24
30	Magnetic studies of the trinuclear center in laccase and ascorbate oxidase approached by EPR spectroscopy and magnetic susceptibility measurements. BBA - Proteins and Proteomics, 1998, 1384, 160-170.	2.1	23
31	New insights into the catalytic active-site structure of multicopper oxidases. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 772-779.	2.5	23
32	Modifications of laccase activities of copper efflux oxidase, CueO by synergistic mutations in the first and second coordination spheres of the type I copper center. Biochemical and Biophysical Research Communications, 2013, 431, 393-397.	2.1	22
33	Characterization of Ascorbate Oxidase from Acremonium sp. HI-25. Journal of Biochemistry, 1994, 115, 811-813.	1.7	21
34	pH and Microwave Power Effects on the Electron Spin Resonance Spectra of Rhus vernicifera Laccase and Cucumis sativus Ascorbate Oxidase1. Journal of Biochemistry, 1990, 107, 37-42.	1.7	20
35	Kinetics of electron transfer between cytochrome c and laccase. Biochemistry, 1992, 31, 9844-9847.	2.5	20
36	Preparation and Properties of the Dinuclear Copper(II) Complexes Bridged by an Alkoxo and an Exogenous Bridging Ligand. Bulletin of the Chemical Society of Japan, 1994, 67, 260-262.	3.2	20

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37	Studies of interaction of homo-dimeric ferredoxin-NAD(P)+ oxidoreductases of Bacillus subtilis and Rhodopseudomonas palustris, that are closely related to thioredoxin reductases in amino acid sequence, with ferredoxins and pyridine nucleotide coenzymes. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 594-601.	2.3	20
38	Spectroscopic studies on cobalt(II)-substituted nitrite reductase from Alcaligenes sp.. BBA - Proteins and Proteomics, 1985, 827, 190-192.	2.1	18
39	ATRâ€FTIR study of the protonation states of the Glu residue in the multicopper oxidases, CueO and bilirubin oxidase. FEBS Letters, 2010, 584, 4027-4031.	2.8	18
40	An investigation on reduction process of cucumber ascorbate oxidase. Biochemical and Biophysical Research Communications, 1986, 135, 644-648.	2.1	16
41	EPR spectra of type 3 copper centers in Rhus vernicifera laccase and Cucumis sativus ascorbate oxidase. BBA - Proteins and Proteomics, 1995, 1248, 143-148.	2.1	16
42	Oxidation of reduced cucumber ascorbate oxidase. Biochemical and Biophysical Research Communications, 1985, 131, 647-652.	2.1	15
43	Electron transfer reaction of stellacyanin at a bare glassy carbon electrode. FEBS Journal, 1994, 219, 813-819.	0.2	14
44	Cyclic Voltammetry of Cucumber Ascorbate Oxidase. Chemistry Letters, 1996, 25, 481-482.	1.3	14
45	Type III Cu Mutants of Myrothecium verrucaria Bilirubin Oxidase. Journal of Biochemistry, 2003, 133, 767-772.	1.7	14
46	Molecular orbital analysis of active site of oxidized azurin: Dependency of electronic properties on molecular structure. Polyhedron, 2005, 24, 2665-2670.	2.2	14
47	Diverse NO reduction by Halomonas halodenitrificans nitric oxide reductase. Biochemical and Biophysical Research Communications, 2005, 333, 483-487.	2.1	14
48	Promotion of Laccase Activities ofEscherichia coliCuprous Oxidase, CueO by Deleting the Segment Covering the Substrate Binding Site. Chemistry Letters, 2007, 36, 232-233.	1.3	14
49	Modification of Spectroscopic Properties and Catalytic Activity of <i>Escherichia coli</i> CueO by Mutations of Methionine 510, the Axial Ligand to the Type I Cu. Bulletin of the Chemical Society of Japan, 2009, 82, 504-508.	3.2	14
50	Redox Potentialâ€Dependent Formation of an Unusual Hisâ€"Trp Bond in Bilirubin Oxidase. Chemistry - A European Journal, 2018, 24, 18052-18058.	3.3	14
51	Observation of Cuâ€"Nâ˜3Stretching and Nâ˜3Asymmetric Stretching Bands formono-Azide Adduct ofRhus verniciferaLaccase. Biochemical and Biophysical Research Communications, 1998, 243, 435-437.	2.1	13
52	EPR and magnetic susceptibility studies of the trinuclear copper center in native and azide-reacted zucchini ascorbate oxidase. Journal of Inorganic Biochemistry, 1999, 75, 19-25.	3.5	13
53	Authentic and Recombinant Bilirubin Oxidases Are in Different Resting Forms. Bioscience, Biotechnology and Biochemistry, 2003, 67, 1157-1159.	1.3	13
54	The Reversible Change in the Redox State of Type I Cu inMyrothecium verrucariaBilirubin Oxidase Depending on pH. Bioscience, Biotechnology and Biochemistry, 2004, 68, 1998-2000.	1.3	13

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55	Modifications on the hydrogen bond network by mutations of Escherichia coli copper efflux oxidase affect the process of proton transfer to dioxygen leading to alterations of enzymatic activities. Biochemical and Biophysical Research Communications, 2012, 422, 152-156.	2.1	13
56	Role of the C-terminal extension stacked on the re-face of the isoalloxazine ring moiety of the flavin adenine dinucleotide prosthetic group in ferredoxin-NADP+ oxidoreductase from Bacillus subtilis. Plant Physiology and Biochemistry, 2014, 81, 143-148.	5.8	13
57	The effect of some anions on the spectral properties of bovine ceruloplasmin. Journal of Inorganic Biochemistry, 1986, 27, 85-93.	3.5	12
58	Pre-steady-state kinetic studies of redox reactions catalysed by Bacillus subtilis ferredoxin-NADP+ oxidoreductase with NADP+/NADPH and ferredoxin. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 678-687.	1.0	12
59	Characterization of Plastocyanin Isolated From Brazilian Elodea. Plant and Cell Physiology, 1987, 28, 825-831.	3.1	10
60	Intramolecular electron-transfer reaction within a diprotein complex of cytochrome c with ferrylmyoglobin modified with diethylenetriaminepentaacetic acid. Journal of Biological Inorganic Chemistry, 2000, 5, 765-773.	2.6	10
61	Solvent effects on electronic structure of active site of azurin by polarizable continuum model. Polyhedron, 2005, 24, 2671-2675.	2.2	10
62	Enzymatic and spectroscopic studies on the activation or inhibition effects by substituted phenolic compounds in the oxidation of aryldiamines and catechols catalyzed by Rhus vernicifera laccase. Journal of Inorganic Biochemistry, 2006, 100, 2127-2139.	3.5	10
63	Crystal structure of the CueO mutants at Glu506, the key amino acid located in the proton transfer pathway for dioxygen reduction. Biochemical and Biophysical Research Communications, 2013, 438, 686-690.	2.1	10
64	Reduction of ascorbate oxidase with hexacyanoferrate(II). Inorganica Chimica Acta, 1984, 92, L33-L35.	2.4	9
65	X-ray absorption study on the type II copper-depleted cucumber ascorbate oxidase. Inorganica Chimica Acta, 1988, 152, 3-4.	2.4	9
66	Kinetics and Mechanisms of Photoinduced Electron-Transfer Reaction of Magnesium Myoglobin. Bulletin of the Chemical Society of Japan, 1994, 67, 2093-2097.	3.2	9
67	The alkaline transition of blue copper proteins,Cucumis sativusplastocyanin andPseudomonas aeruginosaazurin. FEBS Letters, 2006, 580, 1729-1732.	2.8	9
68	THE TYPE I COPPER OF NITRITE REDUCTASE FROMALCALIGENESSP. NCIB 11015. Chemistry Letters, 1985, 14, 1297-1300.	1.3	8
69	SPECTROSCOPY OF CUCUMBER ASCORBATE OXIDASE AND FUNGAL LACCASE. , 1997, , 225-250.		8
70	Visible and magnetic circular dichroism studies on cobalt(II)-substituted rhus vernicifera laccase. Inorganica Chimica Acta, 1988, 152, 139-143.	2.4	7
71	Type III coppers in an EPR detectable met form of multicopper oxidases afford an identical EPR signal with type II copper. Inorganica Chimica Acta, 1989, 157, 117-120.	2.4	7
72	Electrochemical characterization of a unique, â€œneutralâ€•laccase from FlammulinaÂvelutipes. Journal of Bioscience and Bioengineering, 2013, 115, 159-167.	2.2	7

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73	Stereoselective electron-transfer reactions of the optically active ruthenium(III) complexes with hydrophobic side-chains with azurin(I) from Alcaligenes xylosoxidans GIFU 1051. Inorganic Chemistry Communication, 2000, 3, 185-187.	3.9	6
74	Perturbations at the high spin heme b center in the membrane-bound nitric oxide reductase. Journal of Inorganic Biochemistry, 2001, 83, 281-286.	3.5	6
75	Compensatory binding of an asparagine residue to the coordination-unsaturated type I Cu center in bilirubin oxidase mutants. Biochemical and Biophysical Research Communications, 2008, 371, 416-419.	2.1	6
76	Study on dioxygen reduction by mutational modifications of the hydrogen bond network leading from bulk water to the trinuclear copper center in bilirubin oxidase. Biochemical and Biophysical Research Communications, 2014, 450, 767-772.	2.1	6
77	Spectral Properties of Cytochromec553and a Membrane-Bound CytochromebfromAlcaligenes xylosoxidansGIFU 1051. Bulletin of the Chemical Society of Japan, 1998, 71, 135-140.	3.2	5
78	Crystallization and preliminary X-ray studies of ferredoxin-NAD(P)+reductase fromChlorobium tepidum. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 186-189.	0.7	5
79	Kinetics of NADP+/NADPH reductionâ€“oxidation catalyzed by the ferredoxin-NAD(P)+ reductase from the green sulfur bacterium Chlorobaculum tepidum. Photosynthesis Research, 2016, 130, 479-489.	2.9	5
80	Heterologous expression of Halomonas halodenitrificans nitric oxide reductase and its N-terminally truncated NorC subunit in Escherichia coli. Journal of Inorganic Biochemistry, 2017, 169, 61-67.	3.5	5
81	FT-IR Spectra of the Azide-Type 3 Copper in Laccase and Ascorbate Oxidase. Chemistry Letters, 1996, 25, 651-652.	1.3	4
82	Intracomplex Quenching by Copper(II) Ion of Excited Singlet and Triplet States of Zinc Myoglobin Modified with Diethylenetriaminepentaacetic Acid. Chemistry Letters, 1997, 26, 601-602.	1.3	4
83	Replacement of Tyr50 stacked on the si-face of the isoalloxazine ring of the flavin adenine dinucleotide prosthetic group modulates Bacillus subtilis ferredoxin-NADP+ oxidoreductase activity toward NADPH. Photosynthesis Research, 2015, 125, 321-328.	2.9	4
84	Exogenous acetate ion reaches the type II copper centre in CueO through the water-excretion channel and potentially affects the enzymatic activity. Acta Crystallographica Section F, Structural Biology Communications, 2016, 72, 558-563.	0.8	4
85	Reassessment of the unusual ESR signal from type 3 copper of ascorbate oxidase reacted with hexacyanoferrate(II). Inorganica Chimica Acta, 1992, 195, 255-258.	2.4	3
86	Spectroscopic distinction between two Co(II) ions substituted for types 1 and 2 Cu in nitrite reductase. Inorganica Chimica Acta, 1998, 275-276, 289-294.	2.4	3
87	Probing electron transfer reactions between two azurins from Alcaligenes xylosoxidans GIFU 1051 with optically active Ru complexes as molecular recognition probes: Importance of the 43rd residue. Inorganica Chimica Acta, 2007, 360, 1555-1567.	2.4	3
88	Crystallization and preliminary X-ray studies of ferredoxin-NADP⁺oxidoreductase encoded by<i>Bacillus subtilis</i><i>yumC</i>. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 301-303.	0.7	3
89	Role of Hydrogen Bond Connecting Ligands for Substrate and Type I Copper in Copper(I) Oxidase CueO. Chemistry Letters, 2013, 42, 1102-1104.	1.3	3
90	Structural Changes of the Trinuclear Copper Center in Bilirubin Oxidase upon Reduction. Molecules, 2019, 24, 76.	3.8	3

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91	Roles of the indole ring of Trp396 covalently bound with the imidazole ring of His398 coordinated to type I copper in bilirubin oxidase. Biochemical and Biophysical Research Communications, 2020, 521, 620-624.	2.1	3
92	Selective Modification of the Two Type I Copper Sites in Human and Bovine Ceruloplasmin with the Action of Azide and L-Cysteine. Bulletin of the Chemical Society of Japan, 1986, 59, 3501-3504.	3.2	2
93	Direct Electrochemistry of Blue Copper Proteins at Au Electrodes Modified with Promoters. Chemistry Letters, 1995, 24, 1075-1076.	1.3	2
94	Tandem and single genes of three membrane-bound nitrate transporters in thenargene cluster of the moderately halophilic denitrifier,Halomonas halodenitrificans. DNA Sequence, 2006, 17, 363-369.	0.7	2
95	A novel resting form of the trinuclear copper center in the double mutant of a multicopper oxidase, CueO, Cys500Ser/Glu506Ala. Journal of Inorganic Biochemistry, 2015, 149, 88-90.	3.5	2
96	Biochemical, spectroscopic and X-ray structural analysis of deuterated multicopper oxidase CueO prepared from a new expression construct for neutron crystallography. Acta Crystallographica Section F, Structural Biology Communications, 2016, 72, 788-794.	0.8	2
97	Amino acids located in the outer-sphere of the trinuclear copper center in a multicopper oxidase, CueO as the putative electron donor in the four-electron reduction of dioxygen. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 997-1003.	2.3	2
98	Electron-transfer from cytochrome c to ascorbate oxidase and its type 2 copper-depleted derivatives. Journal of Inorganic Biochemistry, 1994, 55, 193-202.	3.5	1
99	Quantum Chemical Study of Axial Ligand Effect on the Electronic Properties of Type I Copper Protein. Chemistry Letters, 2018, 47, 1172-1175.	1.3	1
100	Crystal Structure of Ferredoxin-NAD(P)+ Reductase from the Green Sulfur Bacterium Chlorobaculum Tepidum. Advanced Topics in Science and Technology in China, 2013, , 189-192.	0.1	0