

# Takashi Hayashi

## List of Publications by Citations

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215  
papers

5,324  
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42  
h-index

61  
g-index

240  
ext. papers

5,848  
ext. citations

7.3  
avg, IF

5.75  
L-index

#	Paper	IF	Citations
215	New functionalization of myoglobin by chemical modification of heme-propionates. <i>Accounts of Chemical Research</i> , <b>2002</b> , 35, 35-43	24.3	183
214	Molecular modelling of electron transfer systems by noncovalently linked porphyrin-acceptor pairing. <i>Chemical Society Reviews</i> , <b>1997</b> , 26, 355-364	58.5	167
213	Pentacoordinate anionic bis(siliconates) containing a fluorine bridge between two silicon atoms. Synthesis, solid-state structures, and dynamic behavior in solution. <i>Organometallics</i> , <b>1992</b> , 11, 2099-2114	23.8	158
212	C(sp <sup>3</sup> )-H bond hydroxylation catalyzed by myoglobin reconstituted with manganese porphycene. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 17282-5	16.4	120
211	Blue myoglobin reconstituted with an iron porphycene shows extremely high oxygen affinity. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 11226-7	16.4	114
210	A hydrogenase model system based on the sequence of cytochrome c: photochemical hydrogen evolution in aqueous media. <i>Chemical Communications</i> , <b>2011</b> , 47, 8229-31	5.8	112
209	Supramolecular hemoprotein linear assembly by successive interprotein heme-heme pocket interactions. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 10326-7	16.4	103
208	Peroxidase Activity of Myoglobin Is Enhanced by Chemical Mutation of Heme-Propionates. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 7747-7750	16.4	92
207	Ligand binding properties of myoglobin reconstituted with iron porphycene: unusual O <sub>2</sub> binding selectivity against CO binding. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 16007-17	16.4	87
206	Catalytic Cyclopropanation by Myoglobin Reconstituted with Iron Porphycene: Acceleration of Catalysis due to Rapid Formation of the Carbene Species. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17265-17268	16.4	85
205	Photoinduced Hydrogen Evolution Catalyzed by a Synthetic Diiron Dithiolate Complex Embedded within a Protein Matrix. <i>ACS Catalysis</i> , <b>2014</b> , 4, 2645-2648	13.1	83
204	Crystal structure and peroxidase activity of myoglobin reconstituted with iron porphycene. <i>Inorganic Chemistry</i> , <b>2006</b> , 45, 10530-6	5.1	81
203	Hemoproteins Reconstituted with Artificial Metal Complexes as Biohybrid Catalysts. <i>Accounts of Chemical Research</i> , <b>2019</b> , 52, 945-954	24.3	77
202	Hybridization of modified-heme reconstitution and distal histidine mutation to functionalize sperm whale myoglobin. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 436-7	16.4	76
201	Iron porphyrin-cyclodextrin supramolecular complex as a functional model of myoglobin in aqueous solution. <i>Inorganic Chemistry</i> , <b>2006</b> , 45, 4448-60	5.1	73
200	A rhodium complex-linked β-barrel protein as a hybrid biocatalyst for phenylacetylene polymerization. <i>Chemical Communications</i> , <b>2012</b> , 48, 9756-8	5.8	72
199	Creation of an artificial metalloprotein with a Hoveyda-Grubbs catalyst moiety through the intrinsic inhibition mechanism of β-chymotrypsin. <i>Chemical Communications</i> , <b>2012</b> , 48, 1662-4	5.8	70

198	Chemically programmed supramolecular assembly of hemoprotein and streptavidin with alternating alignment. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 3818-21	16.4	66
197	Hemoprotein-based supramolecular assembling systems. <i>Current Opinion in Chemical Biology</i> , <b>2014</b> , 19, 154-61	9.7	65
196	Novel pentacoordinate anionic silicate, [o-C <sub>6</sub> H <sub>4</sub> (SiPhF <sub>2</sub> ) <sub>2</sub> F]-K <sup>+</sup> .cntdot.18-crown-6, containing a bent fluoride bridge between two silicon atoms. <i>Journal of the American Chemical Society</i> , <b>1990</b> , 112, 2422-2424	16.4	63
195	Self-assembly of one- and two-dimensional hemoprotein systems by polymerization through heme-heme pocket interactions. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 1271-4	16.4	61
194	A Whole Cell E. coli Display Platform for Artificial Metalloenzymes: Poly(phenylacetylene) Production with a Rhodium Nitrobindin Metalloprotein. <i>ACS Catalysis</i> , <b>2018</b> , 8, 2611-2614	13.1	60
193	Electrochemical reactions mediated by vitamin B12 derivatives in organic solvents. <i>Coordination Chemistry Reviews</i> , <b>2000</b> , 198, 21-37	23.2	60
192	Cobaltporphycenes as Catalysts. The Oxidation of Vinyl Ethers via the Formation and Dissociation of Cobalt Carbon Bonds. <i>Organometallics</i> , <b>2001</b> , 20, 3074-3078	3.8	60
191	Photocatalytic hydrogen evolution by a diiron hydrogenase model based on a peptide fragment of cytochrome c556 with an attached diiron carbonyl cluster and an attached ruthenium photosensitizer. <i>Journal of Inorganic Biochemistry</i> , <b>2012</b> , 108, 159-62	4.2	59
190	Porphyrinoid chemistry in hemoprotein matrix: detection and reactivities of iron(IV)-oxo species of porphycene incorporated into horseradish peroxidase. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 12906-7	16.4	59
189	Anion complexation by bidentate Lewis acidic hosts, ortho-bis(fluorosilyl) benzenes. <i>Journal of Organometallic Chemistry</i> , <b>1996</b> , 506, 85-91	2.3	59
188	Meso-unsubstituted iron corrole in hemoproteins: remarkable differences in effects on peroxidase activities between myoglobin and horseradish peroxidase. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 15124-5	16.4	58
187	Supramolecular assembling systems formed by heme-heme pocket interactions in hemoproteins. <i>Chemical Communications</i> , <b>2012</b> , 48, 11714-26	5.8	57
186	A Highly Active Biohybrid Catalyst for Olefin Metathesis in Water: Impact of a Hydrophobic Cavity in a Barrel Protein. <i>ACS Catalysis</i> , <b>2015</b> , 5, 7519-7522	13.1	56
185	Chiral recognition and chiral sensing using zinc porphyrin dimers. <i>Tetrahedron</i> , <b>2002</b> , 58, 2803-2811	2.4	56
184	Artificial Protein-Protein Complexation between a Reconstituted Myoglobin and Cytochrome c. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 4910-4915	16.4	56
183	Specific molecular recognition via multipoint hydrogen bonding ubiquinone analogs - porphyrin having four convergent hydroxyl groups pairing. <i>Journal of the American Chemical Society</i> , <b>1993</b> , 115, 2049-2051	16.4	55
182	Molecular recognition of diamines by metalloporphyrin dimer. <i>Tetrahedron Letters</i> , <b>1997</b> , 38, 1603-1606		52
181	Molecular Recognition of Ubiquinone Analogues. Specific Interaction between Quinone and Functional Porphyrin via Multiple Hydrogen Bonds. <i>Journal of the American Chemical Society</i> , <b>1997</b> , 119, 7281-7290	16.4	51

180	Photoinduced Singlet Electron Transfer in a Complex Formed from Zinc Myoglobin and Methyl Viologen: Artificial Recognition by a Chemically Modified Porphyrin. <i>Journal of the American Chemical Society</i> , <b>1995</b> , 117, 11606-11607	16.4	50
179	Synthesis, structure, and chemical property of the first fluorine-containing porphycene. <i>Organic Letters</i> , <b>2003</b> , 5, 2845-8	6.2	49
178	Residues in the distal heme pocket of neuroglobin. Implications for the multiple ligand binding steps. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 5886-93	5.4	46
177	A chemically-controlled supramolecular protein polymer formed by a myoglobin-based self-assembly system. <i>Chemical Science</i> , <b>2011</b> , 2, 1033	9.4	45
176	Precise design of artificial cofactors for enhancing peroxidase activity of myoglobin: myoglobin mutant H64D reconstituted with a "single-winged cofactor" is equivalent to native horseradish peroxidase in oxidation activity. <i>Chemistry - an Asian Journal</i> , <b>2011</b> , 6, 2491-9	4.5	44
175	Dynamic molecular recognition in a multifunctional porphyrin and a ubiquinone analog. <i>Journal of the American Chemical Society</i> , <b>1993</b> , 115, 12210-12211	16.4	44
174	Photocurrent generation from hierarchical zinc-substituted hemoprotein assemblies immobilized on a gold electrode. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 2628-31	16.4	42
173	Structure and ligand binding properties of myoglobins reconstituted with monodepropionated heme: functional role of each heme propionate side chain. <i>Biochemistry</i> , <b>2007</b> , 46, 9406-16	3.2	41
172	Iron twin-coronet porphyrins as models of myoglobin and hemoglobin: amphibious electrostatic effects of overhanging hydroxyl groups for successful CO/O <sub>2</sub> discrimination. <i>Chemistry - A European Journal</i> , <b>2003</b> , 9, 862-70	4.8	41
171	meso-Dibenzoporphycene has a Large Bathochromic Shift and a Porphycene Framework with an Unusual cis Tautomeric Form. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 6227-30	16.4	40
170	Manganese(V) Porphycene Complex Responsible for Inert C-H Bond Hydroxylation in a Myoglobin Matrix. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 18460-18463	16.4	40
169	An extremely long-lived singlet 4,4-dimethoxy-3,5-diphenylpyrazolidine-3,5-diyl derivative: a notable nitrogen-atom effect on intra- and intermolecular reactivity. <i>Angewandte Chemie - International Edition</i> , <b>2006</b> , 45, 7828-31	16.4	40
168	A supramolecular receptor of diatomic molecules (O <sub>2</sub> , CO, NO) in aqueous solution. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 8006-15	16.4	38
167	Unusual ligand discrimination by a myoglobin reconstituted with a hydrophobic domain-linked heme. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 56-7	16.4	38
166	Reductive activation of dioxygen by a myoglobin reconstituted with a flavohemin. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 11234-5	16.4	38
165	Preparation and O <sub>2</sub> binding study of myoglobin having a cobalt porphycene. <i>Inorganic Chemistry</i> , <b>2005</b> , 44, 9391-6	5.1	37
164	A role of the heme-7-propionate side chain in cytochrome P450cam as a gate for regulating the access of water molecules to the substrate-binding site. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 1398-400	16.4	36
163	Fabrication of enzyme-degradable and size-controlled protein nanowires using single particle nano-fabrication technique. <i>Nature Communications</i> , <b>2014</b> , 5, 3718	17.4	34

162	Experimental probe for hyperconjugative resonance contribution in stabilizing the singlet state of 2,2-dialkoxy-1,3-diyls: Regioselective 1,2-oxygen migration. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 8008-14	16.4	33
161	Time-resolved Raman evidence for energy funneling through propionate side chains in heme cooling upon photolysis of carbonmonoxy myoglobin. <i>Chemical Physics Letters</i> , <b>2006</b> , 429, 239-243	2.5	33
160	Co(II)/Co(I) reduction-induced axial histidine-flipping in myoglobin reconstituted with a cobalt tetrahydrocorrin as a methionine synthase model. <i>Chemical Communications</i> , <b>2014</b> , 50, 12560-3	5.8	32
159	Electronic and steric effects in pentacoordinate anionic diorganotrifluorosilicates: x-ray structures and carbon-13 NMR studies for evaluation of charge distribution in aryl groups on silicon. <i>Organometallics</i> , <b>1992</b> , 11, 182-191	3.8	31
158	Artificial hydrogenase: biomimetic approaches controlling active molecular catalysts. <i>Current Opinion in Chemical Biology</i> , <b>2015</b> , 25, 133-40	9.7	30
157	Photoinduced Electron Transfer between Multifunctional Porphyrin and Ubiquinone Analogues Linked by Several Hydrogen-Bonding Interactions. <i>Angewandte Chemie International Edition in English</i> , <b>1996</b> , 35, 1964-1966		30
156	Cavity Size Engineering of a Barrel Protein Generates Efficient Biohybrid Catalysts for Olefin Metathesis. <i>ACS Catalysis</i> , <b>2018</b> , 8, 3358-3364	13.1	29
155	Construction of a hybrid biocatalyst containing a covalently-linked terpyridine metal complex within a cavity of apoferritin. <i>Journal of Inorganic Biochemistry</i> , <b>2016</b> , 158, 55-61	4.2	29
154	Interprotein Electron Transfer Reaction Regulated by an Artificial Interface We thank Prof. Dr. I. Morishima and his group for the arrangement of laser flash photolysis equipment. This work was supported by Nagase Science and Technology Foundation, and a Grant-in-Aid for Scientific Research from the Ministry of Education, Science and Culture, Japan. Y. H. was supported by	16.4	29
153	Generation of New Artificial Metalloproteins by Cofactor Modification of Native Hemoproteins... <i>Israel Journal of Chemistry</i> , <b>2015</b> , 55, 76-84 <b>2001</b> , 40, 1098-1101	3.4	27
152	Conformational Analysis of Turn Structure in Tetrapeptides Containing Proline or Proline Analogs. <i>Tetrahedron Letters</i> , <b>1997</b> , 38, 3039-3042	2	27
151	Contribution of heme-propionate side chains to structure and function of myoglobin: chemical approach by artificially created prosthetic groups. <i>Journal of Inorganic Biochemistry</i> , <b>2002</b> , 91, 94-100	4.2	27
150	Supramolecular hemoprotein-gold nanoparticle conjugates. <i>Chemical Communications</i> , <b>2010</b> , 46, 9107-9	5.8	26
149	Synthesis, characterization, and autoreduction of a highly electron-deficient porphycenatoiron(III) with trifluoromethyl substituents. <i>Inorganic Chemistry</i> , <b>2003</b> , 42, 7345-7	5.1	26
148	Rab5-regulated endocytosis plays a crucial role in apical extrusion of transformed cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E2327-E2336	11.5	25
147	Intraprotein transmethylation via a CH <sub>3</sub> -Co(III) species in myoglobin reconstituted with a cobalt corrinoid complex. <i>Dalton Transactions</i> , <b>2016</b> , 45, 3277-84	4.3	25
146	A Pyrene-Linked Cavity within a Barrel Protein Promotes an Asymmetric Diels-Alder Reaction. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 13618-13622	16.4	25
145	Thermodynamically controlled supramolecular polymerization of cytochrome b 562. <i>Biopolymers</i> , <b>2009</b> , 91, 194-200	2.2	25

144	Photocatalytic hydrogen generation using a protein-coated photosensitizer with anionic patches and a monocationic electron mediator. <i>Chemical Communications</i> , <b>2008</b> , 3684-6	5.8	25
143	Ligand binding properties of two kinds of reconstituted myoglobins with iron porphycene having propionates: effect of beta-pyrrolic position of two propionate side chains in porphycene framework. <i>Journal of Inorganic Biochemistry</i> , <b>2006</b> , 100, 1265-71	4.2	25
142	Thermoresponsive Micellar Assembly Constructed from a Hexameric Hemoprotein Modified with Poly-(isopropylacrylamide) toward an Artificial Light-Harvesting System. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 1822-1831	16.4	25
141	Energy migration within hexameric hemoprotein reconstituted with Zn porphyrinoid molecules. <i>Chemical Communications</i> , <b>2015</b> , 51, 11138-40	5.8	24
140	Artificial Diels-Alderase based on the transmembrane protein FhuA. <i>Beilstein Journal of Organic Chemistry</i> , <b>2016</b> , 12, 1314-1321	2.5	24
139	A structural isomer of nonaromatic porphyrin: preparation of 20pi-conjugated porphycene based on electronic perturbation. <i>Organic Letters</i> , <b>2007</b> , 9, 5303-6	6.2	23
138	Electroorganic chemistry. 118. Electroreductive intermolecular coupling of ketones with olefins. <i>Journal of Organic Chemistry</i> , <b>1989</b> , 54, 6001-6003	4.2	23
137	A water-soluble supramolecular complex that mimics the heme/copper hetero-binuclear site of cytochrome oxidase. <i>Chemical Science</i> , <b>2018</b> , 9, 1989-1995	9.4	22
136	Investigation of aromaticity and photophysical properties in [18]/[20]porphycene derivatives. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 7882-9	4.8	22
135	Electroorganic syntheses of macrocyclic lactones mediated by vitamin B12 model complexes. <i>Journal of Electroanalytical Chemistry</i> , <b>2001</b> , 507, 170-176	4.1	22
134	Supramolecular Hemoprotein Assembly with a Periodic Structure Showing Heme-Heme Exciton Coupling. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 10145-10148	16.4	21
133	Interdomain flip-flop motion visualized in flavocytochrome cellobiose dehydrogenase using high-speed atomic force microscopy during catalysis. <i>Chemical Science</i> , <b>2017</b> , 8, 6561-6565	9.4	21
132	Effect of peripheral trifluoromethyl groups in artificial iron porphycene cofactor on ligand binding properties of myoglobin. <i>Journal of Inorganic Biochemistry</i> , <b>2008</b> , 102, 166-73	4.2	21
131	Notable temperature effect on the stereoselectivity in the photochemical [2+2] cycloaddition reaction (PaternBüchi reaction) of 2,3-dihydrofuran-3-ol derivatives with benzophenone. <i>Tetrahedron Letters</i> , <b>2006</b> , 47, 2527-2530	2	21
130	Introduction of a specific binding domain on myoglobin surface by new chemical modification. <i>Journal of Inorganic Biochemistry</i> , <b>2000</b> , 82, 133-9	4.2	21
129	Evaluation of the functional role of the heme-6-propionate side chain in cytochrome P450cam. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 432-3	16.4	19
128	New approach to the construction of an artificial hemoprotein complex. <i>Coordination Chemistry Reviews</i> , <b>1999</b> , 190-192, 961-974	23.2	19
127	Thermal Isomerization of N-Bridged Cobalt Corrole Complexes through a Transiently Formed Axial Carbenoid. <i>Organometallics</i> , <b>2011</b> , 30, 1869-1873	3.8	18

126	Photoinduced electron transfer from zinc porphyrin to a linked quinone in myoglobin. <i>Journal of the Chemical Society Chemical Communications</i> , <b>1995</b> , 2503		18
125	Chiral paddle-wheel diruthenium complexes for asymmetric catalysis. <i>Nature Catalysis</i> , <b>2020</b> , 3, 851-858	36.5	18
124	Crystal structure and spectroscopic studies of a stable mixed-valent state of the hemerythrin-like domain of a bacterial chemotaxis protein. <i>Inorganic Chemistry</i> , <b>2011</b> , 50, 4892-9	5.1	17
123	Redox Potentials of Cobalt Corrinoids with Axial Ligands Correlate with Heterolytic Co-C Bond Dissociation Energies. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 1950-1955	5.1	16
122	Rhodium-Complex-Linked Hybrid Biocatalyst: Stereo-Controlled Phenylacetylene Polymerization within an Engineered Protein Cavity. <i>ChemCatChem</i> , <b>2014</b> , 6, n/a-n/a	5.2	16
121	Photoinduced Electron Transfer of ZnS@AgInS <sub>2</sub> Solid-Solution Semiconductor Nanoparticles: Emission Quenching and Photocatalytic Reactions Controlled by Electrostatic Forces. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 15667-15676	3.8	16
120	Kinetic and Thermodynamic Analysis of Induced-Fit Molecular Recognition between Tetraarylporphyrin and Ubiquinone Analogues. <i>Chemistry - A European Journal</i> , <b>1998</b> , 4, 1266-1274	4.8	16
119	Pathway of information transmission from heme to protein upon ligand binding/dissociation in myoglobin revealed by UV resonance raman spectroscopy. <i>Journal of Biological Chemistry</i> , <b>2006</b> , 281, 24637-46	5.4	16
118	Ortho lithiation directed by amino groups on silicon in phenylsilane derivatives. <i>Tetrahedron Letters</i> , <b>1990</b> , 31, 2925-2928	2	16
117	Enzyme-substrate complex structures of CYP154C5 shed light on its mode of highly selective steroid hydroxylation. <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>2014</b> , 70, 2875-89		15
116	Enhancement of Peroxygenase Activity of Horse Heart Myoglobin by Modification of Heme-propionate Side Chains. <i>Chemistry Letters</i> , <b>2003</b> , 32, 496-497	1.7	15
115	Interprotein Electron Transfer Reaction Regulated by an Artificial Interface. <i>Angewandte Chemie</i> , <b>2001</b> , 113, 1132-1135	3.6	15
114	Synthesis of Ring-Fluorinated Porphyrins and Reconstititional Myoglobins with Their Iron Complexes. <i>Bulletin of the Chemical Society of Japan</i> , <b>1996</b> , 69, 2923-2933	5.1	14
113	Light triggers molecular shuttling in rotaxanes: control over proximity and charge recombination. <i>Chemical Science</i> , <b>2019</b> , 10, 3846-3853	9.4	14
112	Olefin metathesis catalysts embedded in $\beta$ -barrel proteins: creating artificial metalloproteins for olefin metathesis. <i>Beilstein Journal of Organic Chemistry</i> , <b>2018</b> , 14, 2861-2871	2.5	14
111	Electrochemical CO reduction by a cobalt bipyridine complex: decrease of an overpotential value derived from monoanionic ligand character of the porphyrinoid species. <i>Chemical Communications</i> , <b>2019</b> , 55, 493-496	5.8	13
110	Myoglobin Reconstituted with Ni Tetrahydrocorrin as a Methane-Generating Model of Methyl-coenzyme M Reductase. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 13813-13817	16.4	13
109	CuAAC in a Distal Pocket: Metal Active-Template Synthesis of Strapped-Porphyrin [2]Rotaxanes. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 13579-13582	4.8	13

- 108 Nonprecious-metal Fe/N/C Catalysts Prepared from Expanded Fe Salen Precursors toward an Efficient Oxygen Reduction Reaction. *ChemCatChem*, **2018**, 10, 743-750 5.2 13
- 107 A supramolecular assembly based on an engineered hemoprotein exhibiting a thermal stimulus-driven conversion to a new distinct supramolecular structure. *Chemical Communications*, **2017**, 53, 6879-6882 5.8 12
- 106 Mitochondria-Targeting Polyamine-Protoporphyrin Conjugates for Photodynamic Therapy. *ChemMedChem*, **2018**, 13, 15-19 3.7 12
- 105 Crystal Structures and Coordination Behavior of Aqua- and Cyano-Co(III) Tetradehydrocorrins in the Heme Pocket of Myoglobin. *Inorganic Chemistry*, **2016**, 55, 1287-95 5.1 12
- 104 Cathodic photocurrent generation from zinc-substituted cytochrome b562 assemblies immobilized on an apocytochrome b562-modified gold electrode. *Dalton Transactions*, **2013**, 42, 16102-7 4.3 12
- 103 meso-Dibenzoporphycene has a Large Bathochromic Shift and a Porphycene Framework with an Unusual cis Tautomeric Form. *Angewandte Chemie*, **2015**, 127, 6325-6328 3.6 12
- 102 Photochemical properties of a myoglobin-CdTe quantum dot conjugate. *Chemical Communications*, **2012**, 48, 8054-6 5.8 12
- 101 Self-Assembly of One- and Two-Dimensional Hemoprotein Systems by Polymerization through Heme-Heme Pocket Interactions. *Angewandte Chemie*, **2009**, 121, 1297-1300 3.6 12
- 100 Construction of glycosylated myoglobin by reconstititional method. *Chemical Communications*, **2006**, 3131-3 5.8 12
- 99 Functionalization of Myoglobin. *Progress in Inorganic Chemistry*, **2005**, 449-493 12
- 98 Carbene insertion into oxygen-hydrogen bonds by metalloporphyrin catalysts. *Journal of Organometallic Chemistry*, **1994**, 473, 323-327 2.3 12
- 97 Fibrous supramolecular hemoprotein assemblies connected with synthetic heme dimer and apohemoprotein dimer. *Chemistry and Biodiversity*, **2012**, 9, 1684-92 2.5 11
- 96 Organic/inorganic hybrid nanomaterials with vitamin B12 functions. *Science and Technology of Advanced Materials*, **2006**, 7, 655-661 7.1 11
- 95 Photocatalytic Properties of TiO<sub>2</sub> Composites Immobilized with Gold Nanoparticle Assemblies Using the Streptavidin-Biotin Interaction. *Langmuir*, **2016**, 32, 6459-67 4 10
- 94 Substrate binding induces structural changes in cytochrome P450cam. *Acta Crystallographica Section F: Structural Biology Communications*, **2009**, 65, 80-3 10
- 93 A matrix isolation study of 2-isopropylidenecyclopentane-1,3-diyl (Berson-type diradical). *Journal of Organic Chemistry*, **2006**, 71, 6607-10 4.2 10
- 92 Chemical Properties of Sperm Whale Myoglobins Reconstituted with Monopropionate Hemins. *Chemistry Letters*, **2004**, 33, 1512-1513 1.7 10
- 91 Myoglobins engineered with artificial cofactors serve as artificial metalloenzymes and models of natural enzymes. *Dalton Transactions*, **2021**, 50, 1940-1949 4.3 10



90	Iron-Strapped Porphyrins with Carboxylic Acid Groups Hanging over the Coordination Site: Synthesis, X-ray Characterization, and Dioxygen Binding. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 7373-7383	5.1	9
89	Site-Specific Modification of Proteins through N-Terminal Azide Labeling and a Chelation-Assisted CuAAC Reaction. <i>Bioconjugate Chemistry</i> , <b>2019</b> , 30, 2427-2434	6.3	9
88	Bimetallic M/N/C catalysts prepared from expanded metal salen precursors toward an efficient oxygen reduction reaction.. <i>RSC Advances</i> , <b>2018</b> , 8, 2892-2899	3.7	9
87	Supramolecular Linear Assemblies of Cytochrome b 562 Immobilized on a Gold Electrode. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , <b>2013</b> , 23, 172-179	3.2	9
86	Preparation and reactivity of a tetranuclear Fe(II) core in the metallothionein domain. <i>Journal of Inorganic Biochemistry</i> , <b>2011</b> , 105, 702-8	4.2	9
85	Solvent effects on thermodynamic parameters for porphyrin-quinone interaction through multiple hydrogen bonding. <i>Chemical Communications</i> , <b>1997</b> , 1865	5.8	9
84	An Extremely Long-Lived Singlet 4,4-Dimethoxy-3,5-diphenylpyrazolidine-3,5-diyl Derivative: A Notable Nitrogen-Atom Effect on Intra- and Intermolecular Reactivity. <i>Angewandte Chemie</i> , <b>2006</b> , 118, 7992-7995	3.6	9
83	Interfacial Recognition between Reconstituted Myoglobin Having Charged Binding Domain and Electron Acceptor via Electrostatic Interaction. <i>Chemistry Letters</i> , <b>1998</b> , 27, 1229-1230	1.7	9
82	A Pyrene-Linked Cavity within a Barrel Protein Promotes an Asymmetric Diels-Alder Reaction. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 13806-13810	3.6	8
81	Successive energy transfer within multiple photosensitizers assembled in a hexameric hemoprotein scaffold. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 3200-3209	3.6	8
80	Crystal structure, exogenous ligand binding, and redox properties of an engineered diiron active site in a bacterial hemerythrin. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 13014-20	5.1	8
79	Structure and reactivity of reconstituted myoglobins: interaction between protein and polar side chain of chemically modified hemin. <i>Inorganica Chimica Acta</i> , <b>1998</b> , 275-276, 159-167	2.7	8
78	Isolable Iron(II)Porphycene Derivative Stabilized by Introduction of Trifluoromethyl Groups on the Ligand Framework. <i>Bulletin of the Chemical Society of Japan</i> , <b>2008</b> , 81, 76-83	5.1	8
77	Preparation and Binding Affinity of New Porphyrin Host Molecule for Ubiquinone Analogues. <i>Chemistry Letters</i> , <b>1994</b> , 23, 1749-1752	1.7	8
76	An efficient oxidative cleavage of carbon-silicon bonds by a dioxygen/hydroquinone system. <i>Tetrahedron Letters</i> , <b>1989</b> , 30, 6533-6536	2	8
75	Oxidative cleavage of carbon-silicon bonds by dioxygen: catalysis by a flavin-hydronicotinamide redox system. <i>Journal of the Chemical Society Chemical Communications</i> , <b>1988</b> , 795-797		8
74	Incorporation of a Cp*Rh(III)-dithiophosphate Cofactor with Latent Activity into a Protein Scaffold Generates a Biohybrid Catalyst Promoting C(sp)-H Bond Functionalization. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 14457-14463	5.1	8
73	Thermally Controlled Construction of Fe-N Active Sites on the Edge of a Graphene Nanoribbon for an Electrocatalytic Oxygen Reduction Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 15101-15112	9.5	8

72	Cofactor-specific covalent anchoring of cytochrome b562 on a single-walled carbon nanotube by click chemistry. <i>RSC Advances</i> , <b>2016</b> , 6, 65936-65940	3.7	8
71	Roles of N- and C-terminal domains in the ligand-binding properties of cytoglobin. <i>Journal of Inorganic Biochemistry</i> , <b>2018</b> , 179, 1-9	4.2	8
70	Synthesis and Characterization of meso-Substituted Cobalt Tetradehydrocorrin and Evaluation of Its Electrocatalytic Behavior Toward CO Reduction and H Evolution. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 14644-14652	5.1	8
69	Myoglobin-based non-precious metal carbon catalysts for an oxygen reduction reaction. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2015</b> , 19, 510-516	1.8	7
68	Oxygen-binding Protein Fiber and Microgel: Supramolecular Myoglobin-Poly(acrylate) Conjugates. <i>Chemistry - an Asian Journal</i> , <b>2016</b> , 11, 1036-42	4.5	7
67	Methane generation via intraprotein C $\beta$ bond cleavage in cytochrome b562 reconstituted with nickel didehydrocorrin. <i>Journal of Organometallic Chemistry</i> , <b>2019</b> , 901, 120945	2.3	7
66	Chemically Programmed Supramolecular Assembly of Hemoprotein and Streptavidin with Alternating Alignment. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 3884-3887	3.6	7
65	Electron transfer and oxidase activities in reconstituted hemoproteins with chemically modified cofactors. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2009</b> , 13, 1082-1089	1.8	7
64	Molecular Recognition of Horse Heart Apomyoglobin to Monopropionate Hemin: Thermodynamic Determination of Two Orientational Isomers by $^1\text{H}$ NMR Spectra. <i>Chemistry Letters</i> , <b>1995</b> , 24, 911-912	1.7	7
63	A Heterogeneous Hydrogen-Evolution Catalyst Based on a Mesoporous Organosilica with a Diiron Catalytic Center Modelling [FeFe]-Hydrogenase. <i>ChemCatChem</i> , <b>2018</b> , 10, 4894-4899	5.2	7
62	A ring-shaped hemoprotein trimer thermodynamically controlled by the supramolecular heme-heme pocket interaction. <i>Chemical Communications</i> , <b>2019</b> , 55, 1544-1547	5.8	6
61	H $_2$ O $_2$ -dependent substrate oxidation by an engineered diiron site in a bacterial hemerythrin. <i>Chemical Communications</i> , <b>2014</b> , 50, 3421-3	5.8	6
60	Photochemical Property of a Myoglobin $\text{CdTe}$ Quantum Dot Conjugate Formed by Supramolecular Host $\text{Guest}$ Interactions. <i>Chemistry Letters</i> , <b>2014</b> , 43, 1152-1154	1.7	6
59	Photocurrent Generation from Hierarchical Zinc-Substituted Hemoprotein Assemblies Immobilized on a Gold Electrode. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 2682-2685	3.6	6
58	Synthesis and Properties of Alkylperoxocobalt(III) Porphyrin and Porphycene. <i>Chemistry Letters</i> , <b>2000</b> , 29, 90-91	1.7	6
57	Triazolecarbaldehyde Reagents for One-Step N-Terminal Protein Modification. <i>ChemBioChem</i> , <b>2020</b> , 21, 1274-1278	3.8	6
56	Photoinduced electron transfer within supramolecular hemoprotein co-assemblies and heterodimers containing Fe and Zn porphyrins. <i>Journal of Inorganic Biochemistry</i> , <b>2019</b> , 193, 42-51	4.2	5
55	Laser Heating Dynamics of Poly(methyl methacrylate) Films Doped with Aromatic Molecules as Revealed by Analysis of Diffusion of Triplet States. <i>Bulletin of the Chemical Society of Japan</i> , <b>2003</b> , 76, 1075-1085	5.1	5

54	Enhancement of enzymatic activity for myoglobins by modification of heme-propionate side chains. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2004</b> , 08, 255-264	1.8	5
53	Methane Generation and Reductive Debromination of Benzylic Position by Reconstituted Myoglobin Containing Nickel Tetrahydrocorrin as a Model of Methyl-coenzyme M Reductase. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 11995-12004	5.1	5
52	Construction of a whole-cell biohybrid catalyst using a Cp*Rh(III)-dithiophosphate complex as a precursor of a metal cofactor. <i>Journal of Inorganic Biochemistry</i> , <b>2021</b> , 216, 111352	4.2	5
51	Directed Evolution of a Cp*Rh-Linked Biohybrid Catalyst Based on a Screening Platform with Affinity Purification. <i>ChemBioChem</i> , <b>2021</b> , 22, 679-685	3.8	5
50	Cobalt tetrahydrocorrins coordinated by imidazolate-like histidine in the heme pocket of horseradish peroxidase. <i>Journal of Biological Inorganic Chemistry</i> , <b>2017</b> , 22, 695-703	3.7	4
49	meso-Tetraaryl(porphyrinato)cobalt(III)-catalyzed Oxygenation of Disilanes under Aerobic Conditions. <i>Chemistry Letters</i> , <b>2017</b> , 46, 1807-1809	1.7	4
48	Relationship between electron transfer and the structure of a quinone-linked zinc porphyrin with a flexible peptide spacer. <i>Journal of the Chemical Society Chemical Communications</i> , <b>1995</b> , 545		4
47	Photoinduzierter Elektronentransfer zwischen multifunktionellen, über mehrere H-Brücken verknüpften Porphyrin- und Ubichinon-Analoga. <i>Angewandte Chemie</i> , <b>1996</b> , 108, 2096-2098	3.6	4
46	Exo-selective formation of bicyclic oxetanes in the photocycloaddition reaction of carbonyl compounds with vinylene carbonate: the important role of intermediary triplet diradicals in the stereoselectivity. <i>Arkivoc</i> , <b>2007</b> , 2007, 58-65	0.9	4
45	Supramolecular dimerization of a hexameric hemoprotein via multiple pyrene-pyrene interactions. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2020</b> , 24, 259-267	1.8	4
44	Myoglobin Reconstituted with Ni Tetrahydrocorrin as a Methane-Generating Model of Methyl-coenzyme M Reductase. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 13951-13955	3.6	3
43	Rhodium-Complex-Linked Hybrid Biocatalyst: Stereo-Controlled Phenylacetylene Polymerization within an Engineered Protein Cavity. <i>ChemCatChem</i> , <b>2014</b> , 6, 1123-1123	5.2	3
42	Generation of Functionalized Biomolecules using Hemoprotein Matrices with Small Protein Cavities for Incorporation of Cofactors <b>2013</b> , 87-110		3
41	Supramolecular protein-protein complexation via specific interaction between glycosylated myoglobin and sugar-binding protein. <i>Supramolecular Chemistry</i> , <b>2010</b> , 22, 57-64	1.8	3
40	23 Hemoproteins Reconstituted with Artificially Created Hemes. <i>Handbook of Porphyrin Science</i> , <b>2010</b> , 1-69	0.3	3
39	Reaction of cobalt porphycene with hydride reagents: spectroscopic detection of Co <sup>II</sup> porphycene species and formation of Co <sup>III</sup> R <sub>3</sub> porphycene species. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2012</b> , 16, 616-625	1.8	3
38	DNA-Binding Hemoproteins Tethering Polyamine Interface. <i>Bulletin of the Chemical Society of Japan</i> , <b>2010</b> , 83, 375-377	5.1	3
37	Synthesis and structure of tetraols with convergent and divergent arrays of hydroxy groups. <i>Journal of the Chemical Society Perkin Transactions 1</i> , <b>1999</b> , 1885-1892		3

36	Construction of a Hexameric Hemoprotein Sheet and Direct Observation of Dynamic Processes of Its Formation. <i>Chemistry Letters</i> , <b>2020</b> , 49, 186-190	1.7	3
35	Effect of Molecule-Substrate Interactions on the Adsorption of meso-Dibenzoporphycene Tautomers Studied by Scanning Probe Microscopy and First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 26759-26768	3.8	3
34	Enhanced visible light response of a WO <sub>3</sub> photoelectrode with an immobilized fibrous gold nanoparticle assembly using an amyloid- $\beta$ peptide. <i>RSC Advances</i> , <b>2017</b> , 7, 1089-1092	3.7	2
33	Preparation and characterization of myoglobin reconstituted with Fe(II) oxaporphyrin: The monoanionic macrocycle provides unique cyanide binding behavior for the ferrous species. <i>Inorganica Chimica Acta</i> , <b>2018</b> , 472, 184-191	2.7	2
32	Reaction pathway and free energy profile for conversion of E-conjugation modes in porphyrin isomer. <i>Journal of Organic Chemistry</i> , <b>2012</b> , 77, 8946-55	4.2	2
31	Role of heme-propionate side chains in myoglobin function. <i>Journal of Inorganic Biochemistry</i> , <b>2003</b> , 96, 50	4.2	2
30	Focusing on a nickel hydrocorphinoid in a protein matrix: methane generation by methyl-coenzyme M reductase with F430 cofactor and its models.. <i>Chemical Society Reviews</i> , <b>2022</b> ,	58.5	2
29	Dynamic Protease Activation on a Multimeric Synthetic Protein Scaffold via Adaptable DNA-Based Recruitment Domains. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 11262-11266	16.4	2
28	Anchoring Cytochrome b562 on a Gold Nanoparticle by a Heme-Heme Pocket Interaction. <i>European Journal of Inorganic Chemistry</i> , <b>2016</b> , 2016, 3454-3459	2.3	2
27	Arginine Residues Provide a Multivalent Effect for Cellular Uptake of a Hemoprotein Assembly. <i>Chemistry Letters</i> , <b>2019</b> , 48, 295-298	1.7	2
26	Nonprecious-metal Fe/N/C Catalysts Prepared from E-Expanded Fe Salen Precursors toward an Efficient Oxygen Reduction Reaction. <i>ChemCatChem</i> , <b>2018</b> , 10, 653-653	5.2	1
25	In Situ Observation of Enhanced Photoinduced Charge Separation in a Gold Nanoparticle Assembly Immobilized on TiO <sub>2</sub> . <i>ChemistrySelect</i> , <b>2016</b> , 1, 5666-5670	1.8	1
24	Heme-Binding Properties of HupD Functioning as a Substrate-Binding Protein in a Heme-Uptake ABC-Transporter System in <i>Listeria monocytogenes</i> . <i>Bulletin of the Chemical Society of Japan</i> , <b>2014</b> , 87, 1140-1146	5.1	1
23	Substitution of an amino acid residue axially coordinating to the heme molecule in hexameric tyrosine-coordinated hemoprotein to enhance peroxidase activity. <i>Journal of Porphyrins and Phthalocyanines</i> , <b>2017</b> , 21, 824-831	1.8	1
22	Artificial Metalloenzymes Containing an Organometallic Active Site <b>2014</b> , 305-338		1
21	Iron: Heme Proteins & Dioxygen Transport & Storage Based in part on the article Iron: Heme Proteins & Dioxygen Transport by Harold M. Goff which appeared in the Encyclopedia of Inorganic Chemistry, First Edition. <b>2011</b> ,		1
20	Formation and Cleavage of a Dicobalt Complex Bridged with a Pentamethylene Group. <i>Chemistry Letters</i> , <b>2001</b> , 30, 346-347	1.7	1
19	Molecular Modeling of Biological Electron Transfer via Molecular Recognition. Synthetic Receptor for Ubiquinone and Cytochrome c.. <i>Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry</i> , <b>1998</b> , 56, 745-754	0.2	1

18	Conversion of Hemoprotein Function by Chemical Modification.. <i>Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry</i> , <b>2002</b> , 60, 573-580	0.2	1
17	Incorporation of modified and artificial cofactors into naturally occurring protein scaffolds. <i>Methods in Molecular Biology</i> , <b>2014</b> , 1216, 251-63	1.4	1
16	A Supramolecular Assembly of Hemoproteins Formed in a Star-Shaped Structure via Heme-Heme Pocket Interactions. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	1
15	Molecular Recognition by Novel Macrotetracyclic Cyclophanes Having Dipeptide Segments. <i>Chemistry Letters</i> , <b>1998</b> , 27, 1109-1110	1.7	0
14	Dynamic Protease Activation on a Multimeric Synthetic Protein Scaffold via Adaptable DNA-Based Recruitment Domains. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 11362-11366	3.6	0
13	Functional Myoglobin Model Composed of a Strapped Porphyrin/Cyclodextrin Supramolecular Complex with an Overhanging COOH That Increases O/CO Binding Selectivity in Aqueous Solution. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 12392-12404	5.1	0
12	CuAAC in a Distal Pocket: Metal Active-Template Synthesis of Strapped-Porphyrin [2]Rotaxanes. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 13537-13537	4.8	
11	Titelbild: A Pyrene-Linked Cavity within a $\beta$ Barrel Protein Promotes an Asymmetric Diels-Alder Reaction (Angew. Chem. 44/2017). <i>Angewandte Chemie</i> , <b>2017</b> , 129, 13719-13719	3.6	
10	Artificially Created Metalloenzyme Consisting of an Organometallic Complex Immobilized to a Protein Matrix <b>2019</b> , 307-328		
9	Cofactor-specific Anchoring of Horseradish Peroxidase onto a Polythiophene-modified Electrode. <i>Chemistry Letters</i> , <b>2017</b> , 46, 1818-1821	1.7	
8	3P-076 Mechanism of the water exclusion from the active site of cytochrome P450cam(Heme proteins,The 47th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2009</b> , 49, S163-S164	0	
7	1SE0920 Molecular Mechanism of Water Expelling System in the Initial Step of Cytochrome P450cam Catalytic Cycle(1SE Recent Advances in Structural Analyses of Functional Mechanisms Based on Dynamics of Biological Reactions,The 48th Annual Meeting of the Biophysical Society of Japan,Seibutsu Butsuri,2010,50,83-88)	0	
6	3P113 Substrate binding excludes water cluster from active site of cytochrome P450cam - mutation analysis of water expelling system(Heme proteins,The 48th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2010</b> , 50, S164	0	
5	1P-121 Roles of Asp297 in the vicinity of the active site of cytochrome P450cam in substrate binding(The 46th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2008</b> , 48, S40	0	
4	CHAPTER 3:Myoglobin Derivatives Reconstituted with Modified Metal Porphyrinoids as Structural and Functional Models of the Cytochrome P450 Enzymes. <i>2-Oxoglutarate-Dependent Oxygenases</i> , <b>2018</b> , 63-78	1.8	
3	Artificial Hemoprotein Assemblies in Development of Nanobiomaterials. <i>Series on Chemistry, Energy and the Environment</i> , <b>2019</b> , 71-88	0.2	
2	3P-075 Substrate d-camphor binding induces structural change of cytochrome P450cam(Heme proteins,The 47th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , <b>2009</b> , 49, S163	0	
1	Complimenting a Metal Complex with Protein Environment toward a New Hybrid Biocatalyst. <i>Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry</i> , <b>2013</b> , 71, 452-460	0.2	

