Yoshihito Watanabe

List of Publications by Year
in descending order

69 papers	2,442 citations	218677 26 h-index	206112 48 g-index
81 all docs	81 docs citations	81 times ranked	1646 citing authors

#	Article	IF	Citations
1	pH-Dependent Transfer Hydrogenation of Ketones with HCOONa as a Hydrogen Donor Promoted by (Î·6-C6Me6)Ru Complexes. Organometallics, 2002, 21, 2964-2969.	2.3	171
2	Investigations of the Roles of the Distal Heme Environment and the Proximal Heme Iron Ligand in Peroxide Activation by Heme Enzymes via Molecular Engineering of Myoglobin. Accounts of Chemical Research, 2001, 34, 818-825.	15.6	151
3	Hydrogen Peroxide Dependent Monooxygenations by Tricking the Substrate Recognition of Cytochrome P450BSÎ². Angewandte Chemie - International Edition, 2007, 46, 3656-3659.	13.8	132
4	Use of Perfluorocarboxylic Acids To Trick Cytochrome P450BM3 into Initiating the Hydroxylation of Gaseous Alkanes. Angewandte Chemie - International Edition, 2011, 50, 5315-5318.	13.8	130
5	Reactivities of Oxo and Peroxo Intermediates Studied by Hemoprotein Mutants. Accounts of Chemical Research, 2007, 40, 554-562.	15.6	129
6	Highly Selective Hydroxylation of Benzene to Phenol by Wildâ€type Cytochrome P450BM3 Assisted by Decoy Molecules. Angewandte Chemie - International Edition, 2013, 52, 6606-6610.	13.8	129
7	Peroxygenase reactions catalyzed by cytochromes P450. Journal of Biological Inorganic Chemistry, 2014, 19, 529-539.	2.6	120
8	Formation and Catalytic Roles of Compound I in the Hydrogen Peroxide-Dependent Oxidations by His64 Myoglobin Mutants. Journal of the American Chemical Society, 1999, 121, 9952-9957.	13.7	108
9	Crystal Structure of H2O2-dependent Cytochrome P450SPÎ± with Its Bound Fatty Acid Substrate. Journal of Biological Chemistry, 2011, 286, 29941-29950.	3.4	103
10	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.	11.2	73
11	Dualâ€Functional Small Molecules for Generating an Efficient Cytochrome P450BM3 Peroxygenase. Angewandte Chemie - International Edition, 2018, 57, 7628-7633.	13.8	72
12	Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie - International Edition, 2017, 56, 10324-10329.	13.8	62
13	Direct hydroxylation of primary carbons in small alkanes by wild-type cytochrome P450BM3 containing perfluorocarboxylic acids as decoy molecules. Chemical Science, 2013, 4, 2344.	7.4	59
14	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.	4.1	49
15	Wholeâ€Cell Biotransformation of Benzene to Phenol Catalysed by Intracellular Cytochrome P450BM3 Activated by External Additives. Angewandte Chemie - International Edition, 2018, 57, 12264-12269.	13.8	43
16	Hoodwinking Cytochrome P450BM3 into Hydroxylating Non-Native Substrates by Exploiting Its Substrate Misrecognition. Accounts of Chemical Research, 2019, 52, 925-934.	15.6	41
17	Introduction of P450, Peroxidase, and Catalase Activities into Myoglobin by Site-Directed Mutagenesis: Diverse Reactivities of Compound I. Bulletin of the Chemical Society of Japan, 2003, 76, 1309-1322.	3.2	39
18	Aromatic Câ€“H bond hydroxylation by P450 peroxygenases: a facile colorimetric assay for monooxygenation activities of enzymes based on Russigâ€™s blue formation. Journal of Biological Inorganic Chemistry, 2010, 15, 1109-1115.	2.6	37

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19	Understanding substrate misrecognition of hydrogen peroxide dependent cytochrome P450 from Bacillus subtilis. Journal of Biological Inorganic Chemistry, 2010, 15, 1331-1339.	2.6	35
20	Inhibition of Heme Uptake in <i>Pseudomonas aeruginosa</i> by its Hemophore (HasA_p) Bound to Synthetic Metal Complexes. Angewandte Chemie - International Edition, 2014, 53, 2862-2866.	13.8	34
21	Incorporation of a Phebox Rhodium Complex into apo-Myoglobin Affords a Stable Organometallic Protein Showing Unprecedented Arrangement of the Complex in the Cavity. Organometallics, 2007, 26, 4904-4908.	2.3	33
22	Improved oxidation of aromatic and aliphatic hydrocarbons using rate enhancing variants of P450Bm3 in combination with decoy molecules. Chemical Communications, 2016, 52, 1036-1039.	4.1	33
23	Singleâ€Step Reconstitution of Apoâ€Hemoproteins at the Disruption Stage of <i>Escherichia coli</i> Cells. ChemBioChem, 2012, 13, 2045-2047.	2.6	31
24	Control of stereoselectivity of benzylic hydroxylation catalysed by wild-type cytochrome P450BM3 using decoy molecules. Catalysis Science and Technology, 2017, 7, 3332-3338.	4.1	30
25	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.	4.1	27
26	Hijacking the Heme Acquisition System of Pseudomonas aeruginosa for the Delivery of Phthalocyanine as an Antimicrobial. ACS Chemical Biology, 2019, 14, 1637-1642.	3.4	27
27	Chiralâ€Substrateâ€Assisted Stereoselective Epoxidation Catalyzed by H₂O₂â€Dependent Cytochrome P450_{SPÎ±}. Chemistry - an Asian Journal, 2012, 7, 2286-2293.	3.3	26
28	Monooxygenation of Nonnative Substrates Catalyzed by Bacterial Cytochrome P450s Facilitated by Decoy Molecules. Chemistry Letters, 2017, 46, 278-288.	1.3	26
29	Non-covalent modification of the active site of cytochrome P450 for inverting the stereoselectivity of monooxygenation. Tetrahedron Letters, 2011, 52, 395-397.	1.4	23
30	Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie, 2017, 129, 10460-10465.	2.0	23
31	Reconstitution of full-length P450BM3 with an artificial metal complex by utilising the transpeptidase Sortase A. Chemical Communications, 2018, 54, 7892-7895.	4.1	23
32	Dualâ€Functional Small Molecules for Generating an Efficient Cytochrome P450BM3 Peroxygenase. Angewandte Chemie, 2018, 130, 7754-7759.	2.0	22
33	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.	11.2	22
34	Construction of biocatalysts using the myoglobin scaffold for the synthesis of indigo from indole. Catalysis Science and Technology, 2012, 2, 739-744.	4.1	21
35	Acetate anion-triggered peroxygenation of non-native substrates by wild-type cytochrome P450s. Dalton Transactions, 2015, 44, 15316-15323.	3.3	21
36	Bringing out the Potential of Wildâ€type Cytochrome P450s using Decoy Molecules: Oxygenation of Nonnative Substrates by Bacterial Cytochrome P450s. Israel Journal of Chemistry, 2015, 55, 32-39.	2.3	20

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37	Peptide Nucleic Acid Conjugated with Rutheniumâ€Complex Stabilizing Doubleâ€Duplex Invasion Complex Even under Physiological Conditions. ChemBioChem, 2018, 19, 1601-1604.	2.6	19
38	Development of a Highâ€Pressure Reactor Based on Liquidâ€Flow Pressurisation to Facilitate Enzymatic Hydroxylation of Gaseous Alkanes. ChemCatChem, 2019, 11, 4709-4714.	3.7	18
39	Molecular Design and Regulation of Metalloenzyme Activities through Two Novel Approaches: Ferritin and P450s. Bulletin of the Chemical Society of Japan, 2020, 93, 379-392.	3.2	16
40	Why do nitrogenases waste electrons by evolving dihydrogen?. Applied Organometallic Chemistry, 2004, 18, 589-594.	3.5	15
41	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.	13.8	15
42	Use of apomyoglobin to gently remove heme from a H₂O₂-dependent cytochrome P450 and allow its reconstitution. New Journal of Chemistry, 2017, 41, 302-307.	2.8	13
43	Highly malleable haem-binding site of the haemoprotein HasA permits stable accommodation of bulky tetraphenylporphycenes. RSC Advances, 2019, 9, 18697-18702.	3.6	13
44	Crystals in Minutes: Instant Onâ€Site Microcrystallisation of Various Flavours of the CYP102A1 (P450BM3) Haem Domain. Angewandte Chemie - International Edition, 2020, 59, 7611-7618.	13.8	13
45	Functionalization of Myoglobin. Progress in Inorganic Chemistry, 2005, , 449-493.	3.0	12
46	Efficient hydroxylation of cycloalkanes by co-addition of decoy molecules to variants of the cytochrome P450 CYP102A1. Journal of Inorganic Biochemistry, 2018, 183, 137-145.	3.5	12
47	Ganzzellbiotransformation von Benzol zu Phenol durch intrazellulÃres Zytochrom P450BM3 aktiviert mithilfe externer ZusÃtze. Angewandte Chemie, 2018, 130, 12444-12449.	2.0	12
48	Molecular engineering of cytochrome P450 and myoglobin for selective oxygenations. Journal of Porphyrins and Phthalocyanines, 2004, 08, 279-289.	0.8	11
49	Enhanced <i>cis</i>- and enantioselective cyclopropanation of styrene catalysed by cytochrome P450BM3 using decoy molecules. Chemical Communications, 2020, 56, 11026-11029.	4.1	11
50	Highly efficient hydroxylation of gaseous alkanes at reduced temperature catalyzed by cytochrome P450BM3 assisted by decoy molecules. Journal of Porphyrins and Phthalocyanines, 2015, 19, 329-334.	0.8	6
51	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.	2.0	6
52	Kristalle in Minutenschnelle: Sofortige Mikrokristallisation verschiedenster Varianten der CYP102A1â€(P450BM3)â€HÃmdomÃne. Angewandte Chemie, 2020, 132, 7681-7689.	2.0	6
53	The effect of decoy molecules on the activity of the P450Bm3 holoenzyme and a heme domain peroxygenase variant. Catalysis Communications, 2019, 124, 97-102.	3.3	4
54	Exploring hitherto uninvestigated reactions of the fatty acid peroxygenase CYP152A1: catalase reaction and Compound I formation. Faraday Discussions, 2022, 234, 304-314.	3.2	4

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55	Oxygenation of Nonnative Substrates Using a Malfunction State of Cytochrome P450s. , 2014, , 107-124.		3
56	Molecular Design of Heme Proteins for Future Application. Catalysis Surveys From Asia, 2011, 15, 134-143.	2.6	1
57	Azurinâ€"DNA Conjugate with the Binding Motif of a Transcriptional Regulator, CooA: CO-dependent Modulation of the Electron-transfer Reaction. Chemistry Letters, 2014, 43, 1204-1206.	1.3	1
58	Effect of nitric oxide on VnfA, a transcriptional activator of VFe-nitrogenase in Azotobacter vinelandii. Journal of Biochemistry, 2015, 157, 365-375.	1.7	1
59	Frontispiece: Wholeâ€Cell Biotransformation of Benzene to Phenol Catalysed by Intracellular Cytochrome P450BM3 Activated by External Additives. Angewandte Chemie - International Edition, 2018, 57, .	13.8	1
60	Development of a Highâ€Pressure Reactor Based on Liquidâ€Flow Pressurisation to Facilitate Enzymatic Hydroxylation of Gaseous Alkanes. ChemCatChem, 2019, 11, 4661-4661.	3.7	1
61	Coordination Chemistry in Protein Cages: From Heme Proteins to Organometallo-enzymes. Bulletin of Japan Society of Coordination Chemistry, 2012, 59, 11-25.	0.2	1
62	1P104 Conformational Changes during Apoplastocyanin Folding Observed by Photocleavable Modification and Transient Grating(3. Protein folding and misfolding (I),Poster) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 457 Td (Session,Al	0.1	0
63	Protein engineering: Construction of Robust Bio-nanotubes using the Controlled Self-Assembly of Component Proteins of Bacteriophage T4 (Small 17/2010). Small, 2010, 6, n/a-n/a.	10.0	0
64	Innentitelbild: Inhibition of Heme Uptake inPseudomonas aeruginosaby its Hemophore (HasAp) Bound to Synthetic Metal Complexes (Angew. Chem. 11/2014). Angewandte Chemie, 2014, 126, 2820-2820.	2.0	0
65	Inhibiting Aggregation of Î²-Amyloid by Folded and Unfolded Forms of Fimbrial Protein of Gram-Negative Bacteria. ChemistrySelect, 2017, 2, 9058-9062.	1.5	0
66	Frontispiece: Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie - International Edition, 2017, 56, .	13.8	0
67	Frontispiz: Direct Hydroxylation of Benzene to Phenol by Cytochrome P450BM3 Triggered by Amino Acid Derivatives. Angewandte Chemie, 2017, 129, .	2.0	0
68	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 ETQq0 0 0 rgBT /Overloc	2.0	0
69	Frontispiz: Ganzzellbiotransformation von Benzol zu Phenol durch intrazellulÃres Zytochrom P450BM3 aktiviert mithilfe externer ZusÃtze. Angewandte Chemie, 2018, 130, .	2.0	0