

Kyung-Bin Cho

List of Publications by Year in descending order

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81
papers

3,793
citations

87888

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133252

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85
times ranked

2740
citing authors

#	ARTICLE	IF	CITATIONS
1	An end-on bis(μ_4 -hydroxido) dimanganese(μ_2 , μ_3) azide complex for C-H bond and O-H bond activation reactions. <i>Chemical Communications</i> , 2022, 58, 4623-4626.	4.1	1
2	Nickel-Catalyzed NO Group Transfer Coupled with NO _x Conversion. <i>Journal of the American Chemical Society</i> , 2022, 144, 4585-4593.	13.7	6
3	Structure and Reactivity of Nonporphyrinic Terminal Manganese(IV)-Hydroxide Complexes in the Oxidative Electrophilic Reaction. <i>Inorganic Chemistry</i> , 2022, 61, 4292-4301.	4.0	6
4	Bromoacetic Acid-Promoted Nonheme Manganese-Catalyzed Alkane Hydroxylation Inspired by \pm -Ketoglutarate-Dependent Oxygenases. <i>ACS Catalysis</i> , 2022, 12, 6756-6769.	11.2	17
5	Metal-ligand cooperative transformation of alkyl azide to isocyanate occurring at a Co-Si moiety. <i>Chemical Communications</i> , 2021, 57, 3219-3222.	4.1	8
6	Ligand Architecture Perturbation Influences the Reactivity of Nonheme Iron(V)-Oxo Tetraamido Macrocyclic Ligand Complexes: A Combined Experimental and Theoretical Study. <i>Inorganic Chemistry</i> , 2021, 60, 4058-4067.	4.0	7
7	Nonheme Iron Imido Complexes Bearing a Non-Innocent Ligand: A Synthetic Chameleon Species in Oxidation Reactions. <i>Chemistry - A European Journal</i> , 2021, 27, 17495-17503.	3.3	2
8	How does Lewis acid affect the reactivity of mononuclear high-valent chromium-oxo species? A theoretical study. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 1501-1505.	1.9	5
9	Electronic properties and reactivity patterns of high-valent metal-oxo species of Mn, Fe, Co, and Ni. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 1506-1512.	1.9	9
10	Mono- and dinuclear zinc complexes bearing identical bis(thiosemicarbazone) ligand that exhibit alkaline phosphatase-like catalytic reactivity. <i>Journal of Biological Inorganic Chemistry</i> , 2021, , 1.	2.6	1
11	Electron-Transfer and Redox Reactivity of High-Valent Iron Imido and Oxo Complexes with the Formal Oxidation States of Five and Six. <i>Journal of the American Chemical Society</i> , 2020, 142, 3891-3904.	13.7	43
12	Mechanistic dichotomies in redox reactions of mononuclear metal-oxo intermediates. <i>Chemical Society Reviews</i> , 2020, 49, 8988-9027.	38.1	61
13	High-Spin Mn(V)-Oxo Intermediate in Nonheme Manganese Complex-Catalyzed Alkane Hydroxylation Reaction: Experimental and Theoretical Approach. <i>Inorganic Chemistry</i> , 2019, 58, 14842-14852.	4.0	46
14	A theoretical investigation into the first-row transition metal-O ₂ adducts. <i>Inorganic Chemistry Frontiers</i> , 2019, 6, 2071-2081.	6.0	12
15	A mononuclear manganese(μ_3)-hydroperoxo complex: synthesis by activating dioxygen and reactivity in electrophilic and nucleophilic reactions. <i>Chemical Communications</i> , 2018, 54, 1209-1212.	4.1	43
16	Mutable Properties of Nonheme Iron(III)-Iodosylarene Complexes Result in the Elusive Multiple-Oxidant Mechanism. <i>Journal of the American Chemical Society</i> , 2017, 139, 7444-7447.	13.7	40
17	Structure and spin state of nonheme Fe ^{IV} O complexes depending on temperature: predictive insights from DFT calculations and experiments. <i>Chemical Science</i> , 2017, 8, 5460-5467.	7.4	25
18	Synthesis and reactivity of a mononuclear non-haem cobalt(IV)-oxo complex. <i>Nature Communications</i> , 2017, 8, 14839.	12.8	132

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19	Tunneling Effect That Changes the Reaction Pathway from Epoxidation to Hydroxylation in the Oxidation of Cyclohexene by a Compound I Model of Cytochrome P450. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1557-1561.	4.6	23
20	Mononuclear Nonheme High-Spin ($S=2$) versus Intermediate-Spin ($S=1$) Iron(IV)-Oxo Complexes in Oxidation Reactions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8027-8031.	13.8	46
21	Mononuclear Nonheme High-Spin ($S=2$) versus Intermediate-Spin ($S=1$) Iron(IV)-Oxo Complexes in Oxidation Reactions. <i>Angewandte Chemie</i> , 2016, 128, 8159-8163.	2.0	12
22	A mononuclear nonheme cobalt(III)-hydroperoxide complex with an amphoteric reactivity in electrophilic and nucleophilic oxidative reactions. <i>Dalton Transactions</i> , 2016, 45, 14511-14515.	3.3	26
23	Mechanistic Insight into the Nitric Oxide Dioxygenation Reaction of Nonheme Iron(III)-Superoxo and Manganese(IV)-Peroxo Complexes. <i>Angewandte Chemie</i> , 2016, 128, 12591-12595.	2.0	5
24	Mechanistic Insight into the Nitric Oxide Dioxygenation Reaction of Nonheme Iron(III)-Superoxo and Manganese(IV)-Peroxo Complexes. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12403-12407.	13.8	23
25	Intermetal oxygen atom transfer from an Fe ^V O complex to a Mn ^{III} complex: an experimental and theoretical approach. <i>Chemical Communications</i> , 2016, 52, 12968-12971.	4.1	4
26	Factors Controlling the Chemoselectivity in the Oxidation of Olefins by Nonheme Manganese(IV)-Oxo Complexes. <i>Journal of the American Chemical Society</i> , 2016, 138, 10654-10663.	13.7	52
27	A Manganese(V)-Oxo Complex: Synthesis by Dioxygen Activation and Enhancement of Its Oxidizing Power by Binding Scandium Ion. <i>Journal of the American Chemical Society</i> , 2016, 138, 8523-8532.	13.7	118
28	To rebound or dissociate? This is the mechanistic question in C-H hydroxylation by heme and nonheme metal-oxo complexes. <i>Chemical Society Reviews</i> , 2016, 45, 1197-1210.	38.1	167
29	A theoretical study into a trans-dioxo Mn ^V porphyrin complex that does not follow the oxygen rebound mechanism in C-H bond activation reactions. <i>Chemical Communications</i> , 2016, 52, 904-907.	4.1	13
30	Tuning the Redox Properties of a Nonheme Iron(III)-Peroxo Complex Binding Redox-Inactive Zinc Ions by Water Molecules. <i>Chemistry - A European Journal</i> , 2015, 21, 10676-10680.	3.3	14
31	Mononuclear nonheme iron(IV)-oxo and manganese(IV)-oxo complexes in oxidation reactions: experimental results prove theoretical prediction. <i>Chemical Communications</i> , 2015, 51, 13094-13097.	4.1	42
32	Interplay of Experiment and Theory in Elucidating Mechanisms of Oxidation Reactions by a Nonheme Ru ^{IV} O Complex. <i>Journal of the American Chemical Society</i> , 2015, 137, 8623-8632.	13.7	85
33	Determination of Spin Inversion Probability, H-Tunneling Correction, and Regioselectivity in the Two-State Reactivity of Nonheme Iron(IV)-Oxo Complexes. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1472-1476.	4.6	64
34	Tuning the Reactivity of Chromium(III)-Superoxo Species by Coordinating Axial Ligands. <i>Inorganic Chemistry</i> , 2015, 54, 10513-10520.	4.0	21
35	Mechanistic Insights into the C-H Bond Activation of Hydrocarbons by Chromium(IV) Oxo and Chromium(III) Superoxo Complexes. <i>Inorganic Chemistry</i> , 2014, 53, 645-652.	4.0	52
36	Conversion of high-spin iron(III)-alkylperoxo to iron(IV)-oxo species via O-O bond homolysis in nonheme iron models. <i>Chemical Science</i> , 2014, 5, 156-162.	7.4	46

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37	Mechanistic insight into the hydroxylation of alkanes by a nonheme iron(IV)-oxo complex. <i>Chemical Communications</i> , 2014, 50, 5572-5575.	4.1	67
38	Spectroscopic Characterization and Reactivity Studies of a Mononuclear Nonheme Mn(III)-Hydroperoxo Complex. <i>Journal of the American Chemical Society</i> , 2014, 136, 12229-12232.	13.7	49
39	Investigating Superoxide Transfer through a μ -1,2-O ₂ Bridge between Nonheme Ni ^{III} -Peroxo and Mn ^{II} Species by DFT Methods to Bridge Theoretical and Experimental Views. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2437-2442.	4.6	7
40	Redox-inactive metal ions modulate the reactivity and oxygen release of mononuclear non-haem iron(III)-peroxo complexes. <i>Nature Chemistry</i> , 2014, 6, 934-940.	13.6	135
41	Demonstration of the Heterolytic O-O Bond Cleavage of Putative Nonheme Iron(II)-OOH(R) Complexes for Fenton and Enzymatic Reactions. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7843-7847.	13.8	50
42	Reactions of a Chromium(III)-Superoxo Complex and Nitric Oxide That Lead to the Formation of Chromium(IV)-Oxo and Chromium(III)-Nitrito Complexes. <i>Journal of the American Chemical Society</i> , 2013, 135, 14900-14903.	13.7	49
43	Reactivity comparison of high-valent iron(IV)-oxo complexes bearing N-tetramethylated cyclam ligands with different ring size. <i>Dalton Transactions</i> , 2013, 42, 7842.	3.3	61
44	The Fe ^{III} (H ₂ O ₂) ₂ Complex as a Highly Efficient Oxidant in Sulfoxidation Reactions: Revival of an Underrated Oxidant in Cytochrome P450. <i>Journal of Chemical Theory and Computation</i> , 2013, 9, 2519-2525.	5.3	41
45	A Mononuclear Non-Heme High-Spin Iron(III)-Hydroperoxo Complex as an Active Oxidant in Sulfoxidation Reactions. <i>Journal of the American Chemical Society</i> , 2013, 135, 8838-8841.	13.7	71
46	A Mononuclear Non-Heme Manganese(IV)-Oxo Complex Binding Redox-Inactive Metal Ions. <i>Journal of the American Chemical Society</i> , 2013, 135, 6388-6391.	13.7	182
47	Enhanced Electron-Transfer Reactivity of Nonheme Manganese(IV)-Oxo Complexes by Binding Scandium Ions. <i>Journal of the American Chemical Society</i> , 2013, 135, 9186-9194.	13.7	131
48	Mononuclear Manganese-Peroxo and Bis(μ -oxo)dimanganese Complexes Bearing a Common N-Methylated Macrocyclic Ligand. <i>Chemistry - A European Journal</i> , 2013, 19, 14119-14125.	3.3	44
49	Evidence for an Alternative to the Oxygen Rebound Mechanism in C-H Bond Activation by Non-Heme Fe ^{IV} -O Complexes. <i>Journal of the American Chemical Society</i> , 2012, 134, 20222-20225.	13.7	137
50	Nonheme iron-oxo and -superoxo reactivities: O ₂ binding and spin inversion probability matter. <i>Chemical Communications</i> , 2012, 48, 2189.	4.1	39
51	Theoretical Investigations into C-H Bond Activation Reaction by Nonheme Mn ^{IV} -O Complexes: Multistate Reactivity with No Oxygen Rebound. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2851-2856.	4.6	77
52	Dioxygen Activation by a Non-Heme Iron(II) Complex: Theoretical Study toward Understanding Ferric-Superoxo Complexes. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 915-926.	5.3	65
53	Correlating DFT-Calculated Energy Barriers to Experiments in Nonheme Octahedral Fe ^{IV} -O Species. <i>Chemistry - A European Journal</i> , 2012, 18, 10444-10453.	3.3	24
54	Spectroscopic and computational characterization of Cu ^{II} -OOR (R = H or cumyl) complexes bearing a Me ₆ -tren ligand. <i>Dalton Transactions</i> , 2011, 40, 2234.	3.3	39

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55	Ligand Topology Effect on the Reactivity of a Mononuclear Nonheme Iron(IV)-Oxo Complex in Oxygenation Reactions. <i>Journal of the American Chemical Society</i> , 2011, 133, 11876-11879.	13.7	94
56	A mononuclear nonheme iron(IV)-oxo complex which is more reactive than cytochrome P450 model compound I. <i>Chemical Science</i> , 2011, 2, 1039.	7.4	170
57	The reaction mechanism of allene oxide synthase: Interplay of theoretical QM/MM calculations and experimental investigations. <i>Archives of Biochemistry and Biophysics</i> , 2011, 507, 14-25.	3.0	17
58	A Highly Reactive Mononuclear Non-Heme Manganese(IV) Oxo Complex That Can Activate the Strong C-H Bonds of Alkanes. <i>Journal of the American Chemical Society</i> , 2011, 133, 20088-20091.	13.7	198
59	Water as an Oxygen Source: Synthesis, Characterization, and Reactivity Studies of a Mononuclear Nonheme Manganese(IV) Oxo Complex. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 8190-8194.	13.8	90
60	Theoretical predictions of a highly reactive non-heme Fe(IV) Oxo complex with a high-spin ground state. <i>Chemical Communications</i> , 2010, 46, 4511.	4.1	23
61	External Electric Field Can Control the Catalytic Cycle of Cytochrome P450: A QM/MM Study. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2082-2087.	4.6	76
62	Oxidation of Tertiary Amines by Cytochrome P450: Kinetic Isotope Effect as a Spin State Reactivity Probe. <i>Chemistry - A European Journal</i> , 2009, 15, 8492-8503.	3.3	68
63	First Half-Reaction Mechanism of Nitric Oxide Synthase: The Role of Proton and Oxygen Coupled Electron Transfer in the Reaction by Quantum Mechanics/Molecular Mechanics. <i>Journal of Physical Chemistry B</i> , 2009, 113, 336-346.	2.6	40
64	Effects of Substrate, Protein Environment, and Proximal Ligand Mutation on Compound I and Compound O of Chloroperoxidase. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11763-11771.	2.5	26
65	QM/MM theoretical study of the pentacoordinate Mn(III) and resting states of manganese-reconstituted cytochrome P450. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 521-530.	2.6	10
66	Compound I in Heme Thiolate Enzymes: A Comparative QM/MM Study. <i>Journal of Physical Chemistry A</i> , 2008, 112, 13128-13138.	2.5	32
67	New Trans-Chelating Ligands and Their Complexes and Catalytic Properties in the Mizoroki-Heck Arylation of Cyclohexene. <i>Organometallics</i> , 2008, 27, 5139-5145.	2.3	38
68	A Density Functional Theory Investigation on the Mechanism of the Second Half-Reaction of Nitric Oxide Synthase. <i>Journal of the American Chemical Society</i> , 2008, 130, 3328-3334.	13.7	30
69	Compound I of Nitric Oxide Synthase: The Active Site Protonation State. <i>Journal of the American Chemical Society</i> , 2007, 129, 3182-3188.	13.7	59
70	A Computational Study on the Interaction of the Nitric Oxide Ions NO ⁺ and NO ⁻ with the Side Groups of the Aromatic Amino Acids. <i>Journal of Physical Chemistry A</i> , 2007, 111, 1981-1989.	2.5	13
71	Formation of the Active Species of Cytochrome P450 by Using Iodosylbenzene: A Case for Spin-Selective Reactivity. <i>Chemistry - A European Journal</i> , 2007, 13, 4103-4115.	3.3	46
72	Influence of Cu ⁺ on the S-NO Bond Dissociation Energy of S-Nitrosothiols. <i>Journal of Physical Chemistry B</i> , 2005, 109, 1334-1336.	2.6	34

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73	Second Half-Reaction of Nitric Oxide Synthase: Computational Insights into the Initial Step and Key Proposed Intermediate. <i>Journal of Physical Chemistry B</i> , 2005, 109, 23706-23714.	2.6	28
74	Class I ribonucleotide reductase revisited: The effect of removing a proton on Glu441. <i>Journal of Computational Chemistry</i> , 2004, 25, 311-321.	3.3	31
75	Density Functional Calculations on Class III Ribonucleotide Reductase: Substrate Reaction Mechanism with Two Formates. <i>Journal of Physical Chemistry B</i> , 2004, 108, 2056-2065.	2.6	13
76	Quantum Chemical Calculations of the NHA Bound Nitric Oxide Synthase Active Site: O ₂ Binding and Implications for the Catalytic Mechanism. <i>Journal of the American Chemical Society</i> , 2004, 126, 10267-10270.	13.7	18
77	Ring Complexes of S-Nitrosothiols with Cu ⁺ : A Density Functional Theory Study. <i>European Journal of Mass Spectrometry</i> , 2004, 10, 941-948.	1.0	4
78	Conformations of Benzene- and Dibenzo[a,l]pyrene Diol Epoxides Studied by Density Functional Theory: Ground States, Transition States, Dynamics, and Solvent Effects. <i>Chemical Research in Toxicology</i> , 2003, 16, 590-597.	3.3	6
79	Peroxyl adduct radicals formed in the iron/oxygen reconstitution reaction of mutant ribonucleotide reductase R2 proteins from <i>Escherichia coli</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2002, 7, 74-82.	2.6	6
80	The Substrate Reaction Mechanism of Class III Anaerobic Ribonucleotide Reductase. <i>Journal of Physical Chemistry B</i> , 2001, 105, 6445-6452.	2.6	19
81	Heme compound II models in chemoselectivity and disproportionation reactions. <i>Chemical Science</i> , 0, , .	7.4	8