Kallol Ray

List of Publications by Year
in descending order

62	4,119	172386	123376
papers	citations	29 h-index	61 g-index

68	68	68	2947
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The biology and chemistry of high-valent ironâ€“oxo and ironâ€“nitrido complexes. Nature Communications, 2012, 3, 720.	5.8	428
2	Status of Reactive Non-Heme Metalâ€“Oxygen Intermediates in Chemical and Enzymatic Reactions. Journal of the American Chemical Society, 2014, 136, 13942-13958.	6.6	391
3	Axial ligand tuning of a nonheme iron(IV)â€“oxo unit for hydrogen atom abstraction. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19181-19186.	3.3	376
4	Heme and Nonheme High-Valent Iron and Manganese Oxo Cores in Biological and Abiological Oxidation Reactions. ACS Central Science, 2019, 5, 13-28.	5.3	275
5	Oxidation Reactions with Bioinspired Mononuclear Nonâ€Heme Metalâ€“Oxo Complexes. Angewandte Chemie - International Edition, 2016, 55, 7632-7649.	7.2	244
6	Terminal Oxo and Imido Transitionâ€Metal Complexes of Groups 9â€“11. European Journal of Inorganic Chemistry, 2013, 2013, 3784-3807.	1.0	168
7	Iron and manganese oxo complexes, oxo wall and beyond. Nature Reviews Chemistry, 2020, 4, 404-419.	13.8	167
8	Spectroscopic Capture and Reactivity of a Lowâ€Spin Cobalt(IV)â€Oxo Complex Stabilized by Binding Redoxâ€Inactive Metal Ions. Angewandte Chemie - International Edition, 2014, 53, 10403-10407.	7.2	145
9	Nonheme oxoiron(<scp>iv</scp>) complexes of pentadentate N5 ligands: spectroscopy, electrochemistry, and oxidative reactivity. Chemical Science, 2013, 4, 282-291.	3.7	144
10	An Oxocobalt(IV) Complex Stabilized by Lewis Acid Interactions with Scandium(III) Ions. Angewandte Chemie - International Edition, 2011, 50, 1711-1715.	7.2	136
11	Dioxygen activation chemistry by synthetic mononuclear nonheme iron, copper and chromium complexes. Coordination Chemistry Reviews, 2017, 334, 25-42.	9.5	136
12	Synthesis and reactivity of a mononuclear non-haem cobalt(IV)-oxo complex. Nature Communications, 2017, 8, 14839.	5.8	132
13	Lewis Acid Trapping of an Elusive Copperâ€“Tosylnitrene Intermediate Using Scandium Triflate. Journal of the American Chemical Society, 2012, 134, 14710-14713.	6.6	120
14	Transition metal-mediated Oâ€“O bond formation and activation in chemistry and biology. Chemical Society Reviews, 2021, 50, 4804-4811.	18.7	113
15	Spectroscopic capture and reactivity of S = 1/2 nickel(iii)â€“oxygen intermediates in the reaction of a NiII-salt with mCPBA. Chemical Communications, 2012, 48, 3730.	2.2	87
16	Reactivity of a Nickel(II) Bis(amidate) Complex with metaâ€Chloroperbenzoic Acid: Formation of a Potent Oxidizing Species. Chemistry - A European Journal, 2015, 21, 15029-15038.	1.7	82
17	High-valent metal-oxo intermediates in energy demanding processes: from dioxygen reduction to water splitting. Current Opinion in Chemical Biology, 2015, 25, 159-171.	2.8	79
18	Dioxygenaseâ€Like Reactivity of an Isolable Superoxoâ€“Nickel(II) Complex. Chemistry - A European Journal, 2010, 16, 9669-9675.	1.7	54

#	Article	IF	Citations
19	A Lipophilic Hexaporphyrin Assembly Supported on a Stannoxane Core. Journal of the American Chemical Society, 2005, 127, 2410-2411.	6.6	51
20	A Highly Reactive Oxoiron(IV) Complex Supported by a Bioinspired N₃O Macrocyclic Ligand. Angewandte Chemie - International Edition, 2017, 56, 14384-14388.	7.2	49
21	Oxidationsreaktionen mit bioinspirierten einkernigen Nichtâ€HÃmâ€Oxidometallkomplexen. Angewandte Chemie, 2016, 128, 7760-7778.	1.6	48
22	Oï£¿O Bond Formation Mediated by a Hexanuclear Iron Complex Supported on a Stannoxane Core. Chemistry - A European Journal, 2012, 18, 2787-2791.	1.7	44
23	Evidence of two-state reactivity in alkane hydroxylation by Lewis-acid bound copperâ€“nitrene complexes. Chemical Communications, 2014, 50, 9852-9854.	2.2	42
24	Temperature Dependence of the Catalytic Two- versus Four-Electron Reduction of Dioxygen by a Hexanuclear Cobalt Complex. Journal of the American Chemical Society, 2017, 139, 15033-15042.	6.6	42
25	O2 and H2O2 activations at dinuclear Mn and Fe active sites. Coordination Chemistry Reviews, 2020, 408, 213176.	9.5	42
26	Trapping of a Highly Reactive Oxoiron(IV) Complex in the Catalytic Epoxidation of Olefins by Hydrogen Peroxide. Angewandte Chemie - International Edition, 2019, 58, 4012-4016.	7.2	41
27	Characterization and Reactivity Studies of a Terminal Copperâ€“Nitrene Species. Angewandte Chemie - International Edition, 2016, 55, 14005-14008.	7.2	33
28	A Highâ€Valent Nonâ€Heme Î¼â€Oxo Manganese(IV) Dimer Generated from a Thiolateâ€Bound Manganese(II) Complex and Dioxygen. Angewandte Chemie - International Edition, 2017, 56, 8211-8215.	7.2	29
29	Observation of Carbodicarbene Ligand Redox Noninnocence in Highly Oxidized Iron Complexes. Angewandte Chemie - International Edition, 2018, 57, 15717-15722.	7.2	29
30	Characterization of a Tricationic Trigonal Bipyramidal Iron(IV) Cyanide Complex, with a Very High Reduction Potential, and Its Iron(II) and Iron(III) Congeners. Inorganic Chemistry, 2011, 50, 2885-2896.	1.9	27
31	Stoichiometric Formation of an Oxoiron(IV) Complex by a Soluble Methane Monooxygenase Type Activation of O₂ at an Iron(II)-Cyclam Center. Journal of the American Chemical Society, 2020, 142, 5924-5928.	6.6	27
32	A New Domain of Reactivity for Highâ€Valent Dinuclear [M(Î¼â€O)₂Mâ€²] Complexes in Oxidation Reactions. Angewandte Chemie - International Edition, 2017, 56, 297-301.	7.2	26
33	Nucleophilic versus Electrophilic Reactivity of Bioinspired Superoxido Nickel(II) Complexes. Angewandte Chemie - International Edition, 2018, 57, 14883-14887.	7.2	18
34	A Pseudotetrahedral Terminal Oxoiron(IV) Complex: Mechanistic Promiscuity in Câ^'H Bond Oxidation Reactions. Angewandte Chemie - International Edition, 2021, 60, 6752-6756.	7.2	16
35	Spectroscopic Characterization of a Reactive [Cu₂(Î¼â€OH)₂]²⁺ Intermediate in Cu/TEMPO Catalyzed Aerobic Alcohol Oxidation Reaction. Angewandte Chemie - International Edition, 2021, 60, 23018-23024.	7.2	16
36	An Openâ€Shell Spin Singlet Copperâ€Nitrene Intermediate Binding Redoxâ€Innocent Metal Ions: Influence of the Lewis Acidity of the Metal Ions on Spectroscopic and Reactivity Properties. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 78-82.	0.6	15

#	Article	IF	Citations
37	Câ€“H activation and nucleophilic substitution in a photochemically generated high valent iron complex. Chemical Science, 2018, 9, 3992-4002.	3.7	15
38	Sulfur substitution in a Ni(cyclam) derivative results in lower overpotential for CO2 reduction and enhanced proton reduction. Dalton Transactions, 2019, 48, 5923-5932.	1.6	15
39	A Highly Reactive Oxoiron(IV) Complex Supported by a Bioinspired N₃O Macrocyclic Ligand. Angewandte Chemie, 2017, 129, 14576-14580.	1.6	13
40	Trapping of a Highly Reactive Oxoiron(IV) Complex in the Catalytic Epoxidation of Olefins by Hydrogen Peroxide. Angewandte Chemie, 2019, 131, 4052-4056.	1.6	13
41	Electrochemical CO₂ Reduction â€" The Effect of Chalcogenide Exchange in Ni-Isocyclam Complexes. Organometallics, 2020, 39, 1497-1510.	1.1	13
42	Water Oxidation Reaction Mediated by an Octanuclear Ironâ€Oxo Cluster. European Journal of Inorganic Chemistry, 2018, 2018, 4925-4929.	1.0	12
43	Characterization and Reactivity Studies of a Terminal Copperâ€“Nitrene Species. Angewandte Chemie, 2016, 128, 14211-14214.	1.6	11
44	A bioinspired oxoiron(<scp>iv</scp>) motif supported on a N₂S₂ macrocyclic ligand. Chemical Communications, 2021, 57, 2947-2950.	2.2	11
45	Changing the chemical and physical properties of high valent heterobimetallic bis-(Î¼-oxido) Cuâ€“Ni complexes by ligand effects. Dalton Transactions, 2016, 45, 15994-16000.	1.6	10
46	Synthesis and Spectroscopic Characterisation of a Heterodinuclear Iron(III)â€Copper(II) Complex Based on an Asymmetric Dinucleating Ligand System. European Journal of Inorganic Chemistry, 2012, 2012, 4565-4569.	1.0	8
47	Ligandâ€Constraintâ€Induced Peroxide Activation for Electrophilic Reactivity. Angewandte Chemie - International Edition, 2021, 60, 14954-14959.	7.2	8
48	Metal-oxo-mediated O-O bond formation reactions in chemistry and biology. Bioinorganic Reaction Mechanisms, 2012, 8, .	0.5	7
49	Observation of Carbodicarbene Ligand Redox Noninnocence in Highly Oxidized Iron Complexes. Angewandte Chemie, 2018, 130, 15943-15948.	1.6	6
50	Formation of cobaltâ€“oxygen intermediates by dioxygen activation at a mononuclear nonheme cobalt(<scp>ii</scp>) center. Dalton Transactions, 2021, 50, 11889-11898.	1.6	6
51	Stable, but still reactive â€" investigations on the effects of Lewis acid binding on copper nitrene intermediates. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2021, 647, 1495-1502.	0.6	6
52	A Pseudotetrahedral Terminal Oxoiron(IV) Complex: Mechanistic Promiscuity in Câ^'H Bond Oxidation Reactions. Angewandte Chemie, 2021, 133, 6826-6830.	1.6	3
53	ECOSTBio: Explicit Control Over Spin States in Technology and Biochemistry. Chemistry - A European Journal, 2018, 24, 5003-5005.	1.7	2
54	Nucleophilic versus Electrophilic Reactivity of Bioinspired Superoxido Nickel(II) Complexes. Angewandte Chemie, 2018, 130, 15099-15103.	1.6	2

#	Article	IF	Citations
55	The influence of secondary interactions on the [Ni(O2)]+ mediated aldehyde oxidation reactions. Journal of Inorganic Biochemistry, 2021, 227, 111668.	1.5	2
56	Water Oxidation Reaction Mediated by an Octanuclear Ironâ€Oxo Cluster. European Journal of Inorganic Chemistry, 2018, 2018, 4930-4931.	1.0	1
57	Catalytic dioxygen reduction mediated by a tetranuclear cobalt complex supported on a stannoxane core. Dalton Transactions, 2020, 49, 6065-6073.	1.6	1
58	Frontispiz: A Highly Reactive Oxoiron(IV) Complex Supported by a Bioinspired N₃O Macrocyclic Ligand. Angewandte Chemie, 2017, 129, .	1.6	0
59	Frontispiece: A Highly Reactive Oxoiron(IV) Complex Supported by a Bioinspired N₃O Macrocyclic Ligand. Angewandte Chemie - International Edition, 2017, 56, .	7.2	0
60	Ligandâ€Constraintâ€Induced Peroxide Activation for Electrophilic Reactivity. Angewandte Chemie, 2021, 133, 15081-15086.	1.6	0
61	Spektroskopische Charakterisierung eines reaktiven [Cu 2 (Î¼â€OH) 2] 2+ Intermediates in Cu/TEMPOâ€katalysierten aeroben Alkoholoxidationen. Angewandte Chemie, 2021, 133, 23201.	1.6	0
62	Modelling the coordination environment in Îºâ€ketoglutarate dependent oxygenases â€“ a comparative study on the effect of Nâ€vs. Oâ€ligation. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 0, , .	0.6	0