Partha Basu

List of Publications by Year
in descending order

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83 papers	4,357 citations	136950 32 h-index	114465 63 g-index
90 all docs	90 docs citations	90 times ranked	4415 citing authors

#	Article	IF	Citations
1	The Mononuclear Molybdenum Enzymes. Chemical Reviews, 2014, 114, 3963-4038.	47.7	693
2	Arsenic and Selenium in Microbial Metabolism. Annual Review of Microbiology, 2006, 60, 107-130.	7.3	573
3	Nitrate and periplasmic nitrate reductases. Chemical Society Reviews, 2014, 43, 676-706.	38.1	260
4	Biotransformation of 3-Nitro-4-hydroxybenzene Arsonic Acid (Roxarsone) and Release of Inorganic Arsenic byClostridiumSpecies. Environmental Science & Technology, 2007, 41, 818-823.	10.0	223
5	The respiratory arsenate reductase fromBacillus selenitireducensstrain MLS10. FEMS Microbiology Letters, 2003, 226, 107-112.	1.8	185
6	Evolution of Nitrate Reductase: Molecular and Structural Variations on a Common Function. ChemBioChem, 2002, 3, 198-206.	2.6	142
7	Nitrite Reductase and Nitric-oxide Synthase Activity of the Mitochondrial Molybdopterin Enzymes mARC1 and mARC2. Journal of Biological Chemistry, 2014, 289, 10345-10358.	3.4	136
8	Development of a Fluorescent Pb²⁺ Sensor. Angewandte Chemie - International Edition, 2009, 48, 3996-3998.	13.8	131
9	Pterin chemistry and its relationship to the molybdenum cofactor. Coordination Chemistry Reviews, 2011, 255, 1016-1038.	18.8	114
10	<i>Transformation of Inorganic and Organic Arsenic by</i><scp>Alkaliphilus oremlandii</scp><i>sp. nov. Strain OhILAs</i>. Annals of the New York Academy of Sciences, 2008, 1125, 230-241.	3.8	90
11	Detection, Isolation, and Characterization of Intermediates in Oxygen Atom Transfer Reactions in Molybdoenzyme Model Systems. Journal of the American Chemical Society, 2000, 122, 9298-9299.	13.7	76
12	Ligand K-Edge and Metal L-Edge X-ray Absorption Spectroscopy and Density Functional Calculations of Oxomolybdenum Complexes with Thiolate and Related Ligands:Â Implications for Sulfite Oxidase. Journal of the American Chemical Society, 1999, 121, 10035-10046.	13.7	69
13	Sulfite Oxidase Catalyzes Single-Electron Transfer at Molybdenum Domain to Reduce Nitrite to Nitric Oxide. Antioxidants and Redox Signaling, 2015, 23, 283-294.	5.4	68
14	Multifrequency ESEEM Spectroscopy of Sulfite Oxidase in Phosphate Buffer:Â Direct Evidence for Coordinated Phosphate. Inorganic Chemistry, 1996, 35, 7001-7008.	4.0	63
15	Synthesis, Molecular and Electronic Structure, and TDDFT and TDDFT-PCM Study of the Solvatochromic Properties of (Me2Pipdt)Mo(CO)4Complex (Me2Pipdt) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 177 Td (=N,Nâ€	4.0	57
16	Mechanistic Investigation of the Oxygen-Atom-Transfer Reactivity of Dioxo-molybdenum(VI) Complexes. Chemistry - A European Journal, 2006, 12, 7501-7509.	3.3	56
17	Oxygen Atom Transfer in Models for Molybdenum Enzymes: Isolation and Structural, Spectroscopic, and Computational Studies of Intermediates in Oxygen Atom Transfer from Molybdenum(VI) to Phosphorus(III). Chemistry - A European Journal, 2005, 11, 3255-3267.	3.3	55
18	Continuing Issues with Lead: Recent Advances in Detection. European Journal of Inorganic Chemistry, 2013, 2013, 1086-1096.	2.0	55

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19	Isolation, Characterization of an Intermediate in an Oxygen Atom-Transfer Reaction, and the Determination of the Bond Dissociation Energy. Journal of the American Chemical Society, 2004, 126, 8604-8605.	13.7	51
20	Comparative Theoretical Investigation of the Vertical Excitation Energies and the Electronic Structure of [MoVOCl4]-:â€‰ Influence of Basis Set and Geometry. Inorganic Chemistry, 2003, 42, 4046-4056.	4.0	49
21	Oxygen Atom Transfer Reactivity from a Dioxo-Mo(VI) Complex to Tertiary Phosphines:Â Synthesis, Characterization, and Structure of Phosphoryl Intermediate Complexes. Inorganic Chemistry, 2005, 44, 7494-7502.	4.0	48
22	A chemical approach to systematically designate the pyranopterin centers of molybdenum and tungsten enzymes and synthetic models. Journal of Inorganic Biochemistry, 1998, 72, 13-21.	3.5	41
23	An Analogue System Displaying All the Important Processes of the Catalytic Cycles Involving Monooxomolybdenum(VI) and Desoxomolybdenum(IV) Centers. Journal of the American Chemical Society, 2002, 124, 756-757.	13.7	41
24	Microbial Reduction of Chromate in the Presence of Nitrate by Three Nitrate Respiring Organisms. Frontiers in Microbiology, 2012, 3, 416.	3.5	41
25	NMR Studies of Hindered Ligand Rotation, Magnetic Anisotropy, Curie Behavior, Proton Spin Relaxation, and Ligand Exchange in Some Novel Oxomolybdenum(V)/Iron(III) Porphyrinate Complexes. Journal of the American Chemical Society, 1995, 117, 9042-9055.	13.7	39
26	Isomerization and Oxygen Atom Transfer Reactivity in Oxoâˆ’Mo Complexes of Relevance to Molybdoenzymes. Inorganic Chemistry, 2004, 43, 7573-7575.	4.0	39
27	Substituent Effect on Oxygen Atom Transfer Reactivity from Oxomolybdenum Centers: Synthesis, Structure, Electrochemistry, and Mechanism. Inorganic Chemistry, 2009, 48, 6303-6313.	4.0	39
28	Chemistry of ferro- and ferriverdins. Iron redox and geometrical stereodynamism. Inorganic Chemistry, 1989, 28, 2680-2686.	4.0	38
29	Syntheses, Spectroscopy, and Redox Chemistry of Encapsulated Oxoâˆ’Mo(V) Centers:Â Implications for Pyranopterin-Containing Molybdoenzymes. Inorganic Chemistry, 2003, 42, 7489-7501.	4.0	38
30	Electronic properties of para-substituted thiophenols and disulfides from 13C NMR spectroscopy and ab initio calculations: relations to the Hammett parameters and atomic chargesElectronic supplementary information (ESI) available: all characterization data are tabulated in Table S1. A figure showing the dependence of the natural charge of the C1 atom of the disulfides on the 13C NMR chemical shift is also provided. See http://www.rsc.org/suppdata/nj/b3/b300048f/. New Journal of Chemistry, 2003, 27, 1115.	2.8	37
31	Respiratory Selenite Reductase from Bacillus selenitireducens Strain MLS10. Journal of Bacteriology, 2019, 201, .	2.2	37
32	A heme- C -containing enzyme complex that exhibits nitrate and nitrite reductase activity from the dissimilatory iron-reducing bacterium Geobacter metallireducens. Archives of Microbiology, 1999, 172, 313-320.	2.2	34
33	Synthesis, Characterization, Electrochemistry, Electronic Structure, and Isomerization of Mononuclear Oxoâˆ’Molybdenum(V) Complexes: The Serine Gate Hypothesis in the Function of DMSO Reductases. Inorganic Chemistry, 2002, 41, 1281-1291.	4.0	34
34	Angiogenic Potential of 3-Nitro-4-Hydroxy Benzene Arsonic Acid (Roxarsone). Environmental Health Perspectives, 2008, 116, 520-523.	6.0	33
35	Influence of the Oxygen Atom Acceptor on the Reaction Coordinate and Mechanism of Oxygen Atom Transfer From the Dioxo-Mo(VI) Complex, TpiPrMoO2(OPh), to Tertiary Phosphines. Inorganic Chemistry, 2010, 49, 4895-4900.	4.0	32
36	Use of EPR Spectroscopy in Elucidating Electronic Structures of Paramagnetic Transition Metal Complexes. Journal of Chemical Education, 2001, 78, 666.	2.3	30

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37	Recent developments in the study of molybdoenzyme models. Journal of Biological Inorganic Chemistry, 2015, 20, 373-383.	2.6	29
38	Geometric Control of Reduction Potential in Oxomolybdenum Centers:Â Implications to the Serine Coordination in DMSO Reductase. Inorganic Chemistry, 2001, 40, 2632-2633.	4.0	28
39	Donor Atom Dependent Geometric Isomers in Mononuclear Oxoâˆ'Molybdenum(V) Complexes:Â Implications for Coordinated Endogenous Ligation in Molybdoenzymes. Inorganic Chemistry, 2003, 42, 5999-6007.	4.0	28
40	Synthesis, electrochemistry, geometric and electronic structure of oxo-molybdenum compounds involved in an oxygen atom transferring system. Journal of Inorganic Biochemistry, 2008, 102, 748-756.	3.5	24
41	Synthesis, characterization, spectroscopy, electronic and redox properties of a new nickel dithiolene system. Inorganica Chimica Acta, 2010, 363, 2857-2864.	2.4	24
42	A Valence Bond Description of Dizwitterionic Dithiolene Character in an Oxomolybdenum-Bis(dithione) Complex. European Journal of Inorganic Chemistry, 2011, 2011, 5467-5470.	2.0	24
43	Molecular cloning, expression and biochemical characterization of periplasmic nitrate reductase from Campylobacter jejuni. FEMS Microbiology Letters, 2018, 365, .	1.8	22
44	Quantitation of the ligand effect in oxo-transfer reactions of dioxo-Mo(<scp>vi</scp>) trispyrazolyl borate complexes. Dalton Transactions, 2013, 42, 3071-3081.	3.3	21
45	Methane, arsenic, selenium and the origins of the DMSO reductase family. Scientific Reports, 2020, 10, 10946.	3.3	20
46	Dendrimer Encapsulation of [MoVOS4] Cores:â€‰ Implications for the DMSO Reductase Family of Enzymes. Inorganic Chemistry, 2001, 40, 192-193.	4.0	19
47	Electrochemistry and Photoelectron Spectroscopy of Oxomolybdenum(V) Complexes with Phenoxide Ligands:Â Effect ofParaSubstituents on Redox Potentials, Heterogeneous Electron Transfer Rates, and Ionization Energies. Inorganic Chemistry, 2002, 41, 2642-2647.	4.0	19
48	A proteome investigation of roxarsone degradation by Alkaliphilus oremlandii strain OhILAs. Metallomics, 2010, 2, 133-139.	2.4	19
49	Solution, Solid, and Gas Phase Studies on a Nickel Dithiolene System: Spectator Metal and Reactor Ligand. Inorganic Chemistry, 2015, 54, 7703-7716.	4.0	19
50	Large Ligand Folding Distortion in an Oxomolybdenum Donorâ€"Acceptor Complex. Inorganic Chemistry, 2016, 55, 785-793.	4.0	18
51	Dithione, the antipodal redox partner of ene-1,2-dithiol ligands and their metal complexes. Coordination Chemistry Reviews, 2020, 409, 213211.	18.8	18
52	A bifurcated pathway of oxygen atom transfer reactions from a monooxo molybdenum(vi) complex under electrospray ionisation mass spectrometric conditions. Dalton Transactions, 2004, , 1928.	3.3	17
53	Oxomolybdenum Tetrathiolates with Sterically Encumbering Ligands:Â Modeling the Effect of a Protein Matrix on Electronic Structure and Reduction Potentials. Inorganic Chemistry, 2005, 44, 8216-8222.	4.0	17
54	Comparative calculation of EPR spectral parameters in [MoVOX4]âˆ', [MoVOX5]2âˆ', and [MoVOX4(H2O)]âˆ' complexes. Physical Chemistry Chemical Physics, 2009, 11, 10377.	2.8	17

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55	Synthesis, characterization and structure of a low coordinate desoxomolybdenum cluster stabilized by a dithione ligand. Dalton Transactions, 2009, , 5023.	3.3	14
56	Designing the Molybdopterin Core through Regioselective Coupling of Building Blocks. Chemistry - A European Journal, 2015, 21, 17057-17072.	3.3	14
57	The physiology and evolution of microbial selenium metabolism. Metallomics, 2021, 13, .	2.4	14
58	Mapping the protein profile involved in the biotransformation of organoarsenicals using an arsenic metabolizing bacterium. Metallomics, 2014, 6, 1958-1969.	2.4	12
59	Functional mononuclear molybdenum enzymes: challenges and triumphs in molecular cloning, expression, and isolation. Journal of Biological Inorganic Chemistry, 2020, 25, 547-569.	2.6	12
60	Oxomolybdenum(V)/Iron(III) Porphyrinate Complexes:Â Effect of Axial Ligand Plane Orientation on Complex Stability, Reduction Potential, and NMR and EPR Spectra. Inorganic Chemistry, 1997, 36, 1088-1094.	4.0	11
61	Design, synthesis, and characterization of a sterically encumbered dioxo molybdenum (VI) core. Inorganica Chimica Acta, 2007, 360, 2092-2099.	2.4	11
62	Infrared Multiple Photon Dissociation Spectroscopy of a Gas-Phase Oxo-Molybdenum Complex with 1,2-Dithiolene Ligands. Journal of Physical Chemistry A, 2014, 118, 5407-5418.	2.5	11
63	A mixed valence zinc dithiolene system with spectator metal and reactor ligands. Polyhedron, 2016, 114, 370-377.	2.2	11
64	Design, Synthesis, and Structure of Copper Dithione Complexes: Redoxâ€Dependent Charge Transfer. European Journal of Inorganic Chemistry, 2019, 2019, 4939-4948.	2.0	11
65	Design, syntheses, and characterization of dioxo-molybdenum(vi) complexes with thiolate ligands: effects of intraligand NHâ‹¯S hydrogen bonding. Dalton Transactions, 2008, , 2569.	3.3	10
66	Determining conventional and unconventional oil and gas well brines in natural sample II: Cation analyses with ICP-MS and ICP-OES. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2020, 55, 11-23.	1.7	10
67	Determining conventional and unconventional oil and gas well brines in natural samples I: Anion analysis with ion chromatography. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2020, 55, 1-10.	1.7	9
68	A regioselective synthesis of the dephospho ditholene protected molybdopterin. RSC Advances, 2014, 4, 19072-19076.	3.6	8
69	Unraveling the inner workings of respiratory arsenate reductase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9051-9053.	7.1	8
70	Dithiolopyranthione Synthesis, Spectroscopy, and an Unusual Reactivity with DDQ. Journal of Heterocyclic Chemistry, 2013, 50, 879-886.	2.6	6
71	Kinetic consequences of the endogenous ligand to molybdenum in the DMSO reductase family: a case study with periplasmic nitrate reductase. Journal of Biological Inorganic Chemistry, 2021, 26, 13-28.	2.6	5
72	Understanding Oxotransferase Reactivity in a Model System Using Singular Value Decomposition Analysis. ACS Symposium Series, 2009, , 199-217.	0.5	4

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73	The Impact of Ligand Oxidation State and Fold Angle on the Charge Transfer Processes of Mo IV Oâ€Dithione Complexes. European Journal of Inorganic Chemistry, 2021, 2021, 914-922.	2.0	4
74	Tungsten in Biological Systems. , 2013, , 2274-2283.		2
75	Methods for Detection of Arsenate-Respiring Bacteria: Advances, Cautions, and Caveats. , 0, , 283-P1.		2
76	Synthesis, Redox and Spectroscopic Properties of Pterin of Molybdenum Cofactors. Molecules, 2022, 27, 3324.	3.8	2
77	Application of Proteomics in Bioremediation. , 0, , 247-P2.		1
78	Interligand communication in a metal mediated LLâ€²CT system â€" a case study. RSC Advances, 2021, 11, 24381-24386.	3.6	1
79	Syntheses, spectroscopic, redox, and structural properties of homoleptic Iron(III/II) dithione complexes. RSC Advances, 2020, 10, 38294-38303.	3.6	1
80	Continuing Issues with Lead: Recent Advances in Detection. European Journal of Inorganic Chemistry, 2013, 2013, 1072-1072.	2.0	0
81	Structural and Electronic Investigation of Tetrachalcogenidomolybdate Dianions. ChemistrySelect, 2018, 3, 5808-5813.	1.5	0
82	Achieving DEIR and Safety Awareness in a Chemistry Graduate Program: â€œSafety, Inclusivity, & Diversity Talksâ€•(â€œSID Talksâ€) as Part of a Colloquium Series. Journal of Chemical Education, 0, , .	2.3	0
83	S K-edge XAS of CuII, CuI, and ZnII oxidized Dithiolene complexes: Covalent contributions to structure and the Jahn-Teller effect. Journal of Inorganic Biochemistry, 2022, 230, 111752.	3.5	0