Jason Shearer

List of Publications by Year
in descending order

74 papers	2,969 citations	109311 35 h-index	175241 52 g-index
75 all docs	75 docs citations	75 times ranked	3132 citing authors

#	Article	IF	Citations
1	The Amyloid-Î² Peptide of Alzheimerâ€™s Disease Binds Cu^I in a Linear Bis-His Coordination Environment: Insight into a Possible Neuroprotective Mechanism for the Amyloid-Î² Peptide. Journal of the American Chemical Society, 2008, 130, 17826-17835.	13.7	176
2	Alkylation of Nucleic Acids by a Model Quinone Methide. Journal of the American Chemical Society, 1999, 121, 6773-6779.	13.7	139
3	A Nickel Phosphine Complex as a Fast and Efficient Hydrogen Production Catalyst. Journal of the American Chemical Society, 2015, 137, 1109-1115.	13.7	137
4	Synthesis and reactivity of a mononuclear non-haem cobalt(IV)-oxo complex. Nature Communications, 2017, 8, 14839.	12.8	132
5	Substrate Oxidation by Copperâˆ’Dioxygen Adducts:Â Mechanistic Considerations. Journal of the American Chemical Society, 2005, 127, 5469-5483.	13.7	95
6	Tuning Copperâˆ’Dioxygen Reactivity and Exogenous Substrate Oxidations via Alterations in Ligand Electronics. Journal of the American Chemical Society, 2003, 125, 634-635.	13.7	93
7	Synthetic Models for the Cysteinate-Ligated Non-Heme Iron Enzyme Superoxide Reductase:â€‰ Observation and Structural Characterization by XAS of an FeIIIâˆ’OOH Intermediate. Journal of the American Chemical Society, 2002, 124, 11709-11717.	13.7	89
8	A Nickel Superoxide Dismutase Maquette That Reproduces the Spectroscopic and Functional Properties of the Metalloenzyme. Inorganic Chemistry, 2006, 45, 2358-2360.	4.0	78
9	Why Is There an â€œInertâ€•Metal Center in the Active Site of Nitrile Hydratase? Reactivity and Ligand Dissociation from a Five-Coordinate Co(III) Nitrile Hydratase Model. Journal of the American Chemical Society, 2001, 123, 463-468.	13.7	66
10	Isolation of a (Dinitrogen)Tricopper(I) Complex. Journal of the American Chemical Society, 2014, 136, 13502-13505.	13.7	66
11	How Do Oxidized Thiolate Ligands Affect the Electronic and Reactivity Properties of a Nitrile Hydratase Model Compound?. Journal of the American Chemical Society, 2000, 122, 8299-8300.	13.7	65
12	Probing Variable Axial Ligation in Nickel Superoxide Dismutase Utilizing Metallopeptide-Based Models:â€‰ Insight into the Superoxide Disproportionation Mechanism. Journal of the American Chemical Society, 2007, 129, 14605-14618.	13.7	65
13	A Redox-Active, Compact Molecule for Cross-Linking Amyloidogenic Peptides into Nontoxic, Off-Pathway Aggregates: In Vitro and In Vivo Efficacy and Molecular Mechanisms. Journal of the American Chemical Society, 2015, 137, 14785-14797.	13.7	65
14	Distinguishing Rate-Limiting Electron versus H-Atom Transfers in Cu2(O2)-Mediated OxidativeN-Dealkylations:Â Application of Inter- versus Intramolecular Kinetic Isotope Effects. Journal of the American Chemical Society, 2003, 125, 12670-12671.	13.7	64
15	Bisamidate and Mixed Amine/Amidate NiN₂S₂ Complexes as Models for Nickel-Containing Acetyl Coenzyme A Synthase and Superoxide Dismutase: An Experimental and Computational Study. Inorganic Chemistry, 2010, 49, 5393-5406.	4.0	64
16	Phenol Nitration Induced by an {Fe(NO)₂}¹⁰ Dinitrosyl Iron Complex. Journal of the American Chemical Society, 2011, 133, 1184-1187.	13.7	63
17	Insight into the Structure and Mechanism of Nickel-Containing Superoxide Dismutase Derived from Peptide-Based Mimics. Accounts of Chemical Research, 2014, 47, 2332-2341.	15.6	59
18	[Me4N](NiII(BEAAM)):Â A Synthetic Model for Nickel Superoxide Dismutase That Contains Ni in a Mixed Amine/Amide Coordination Environment. Inorganic Chemistry, 2006, 45, 9637-9639.	4.0	57

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19	The First Example of a Nitrile Hydratase Model Complex that Reversibly Binds Nitriles. Journal of the American Chemical Society, 2002, 124, 11417-11428.	13.7	51
20	Subtle Modulation of Cu₄X₄L₂ Phosphine Cluster Cores Leads to Changes in Luminescence. Inorganic Chemistry, 2015, 54, 6245-6256.	4.0	51
21	Manganese Complexes of 1,3,5-Triaza-7-phosphaadamantane (PTA):Â The First Nitrogen-Bound Transition-Metal Complex of PTA. Inorganic Chemistry, 2006, 45, 3481-3483.	4.0	50
22	The Copper(II) Adduct of the Unstructured Region of the Amyloidogenic Fragment Derived from the Human Prion Protein is Redox-Active at Physiological pH. Inorganic Chemistry, 2007, 46, 710-719.	4.0	50
23	The Influence of Amine/Amide versus Bisamide Coordination in Nickel Superoxide Dismutase. Inorganic Chemistry, 2006, 45, 10552-10566.	4.0	49
24	Metallopeptide Based Mimics with Substituted Histidines Approximate a Key Hydrogen Bonding Network in the Metalloenzyme Nickel Superoxide Dismutase. Inorganic Chemistry, 2009, 48, 10560-10571.	4.0	49
25	Probing Variable Amine/Amide Ligation in NiIIN2S2 Complexes Using Sulfur K-Edge and Nickel L-Edge X-ray Absorption Spectroscopies: Implications for the Active Site of Nickel Superoxide Dismutase. Inorganic Chemistry, 2008, 47, 2649-2660.	4.0	45
26	Reduction of CO₂ by a masked two-coordinate cobalt(<scp>i</scp>) complex and characterization of a proposed oxodicobalt(<scp>ii</scp>) intermediate. Chemical Science, 2019, 10, 918-929.	7.4	44
27	Model Peptide Studies Reveal a Mixed Histidine-Methionine Cu(I) Binding Site at the N-Terminus of Human Copper Transporter 1. Inorganic Chemistry, 2015, 54, 8544-8551.	4.0	42
28	Steric and Electronic Control over the Reactivity of a Thiolate-Ligated Fe(II) Complex with Dioxygen and Superoxide:Â Reversible Î¼-Oxo Dimer Formation. Inorganic Chemistry, 2004, 43, 7682-7690.	4.0	41
29	Cu K-edge X-ray absorption spectroscopy reveals differential copper coordination within amyloid-Î² oligomers compared to amyloid-Î² monomers. Chemical Communications, 2010, 46, 9137.	4.1	41
30	Luminescent Copper(I) Halide Butterfly Dimers Coordinated to [Au(CH₃imCH₂py)₂]BF₄and [Au(CH₃imCH₂quin)₂]BF₄. Inorganic Chemistry, 2009, 48, 11362-11375.	4.0	40
31	Tripyrrindione as a Redoxâ€Active Ligand: Palladium(II) Coordination in Three Redox States. Angewandte Chemie - International Edition, 2015, 54, 14894-14897.	13.8	40
32	Modulation of Luminescence by Subtle Anionâ€"Cation and Anionâ^'Ï€ Interactions in a Trigonal Au^IÂ·Â·Â·Cu^I Complex. Inorganic Chemistry, 2012, 51, 1207-1209.	4.0	39
33	Periodic Trends within a Series of Five-Coordinate Thiolate-Ligated [MII(SMe2N4(tren))]+ (M = Mn, Fe,) Tj ETQq1 1 0.784314 rgBT /Ov 2007, 46, 9267-9277.	4.0	39
34	An Airâ€•and Waterâ€Tolerant Zinc Hydride Cluster That Reacts Selectively With CO₂. Angewandte Chemie - International Edition, 2015, 54, 7047-7050.	13.8	38
35	Modeling the Reactivity of Superoxide Reducing Metalloenzymes with a Nitrogen and Sulfur Coordinated Iron Complex. Inorganic Chemistry, 2001, 40, 5483-5484.	4.0	37
36	How does cyanide inhibit superoxide reductase? Insight from synthetic FeIIIN4S model complexes. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3671-3676.	7.1	36

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37	Heme/Cu/O2Reactivity:Â Change in FeIIIâˆ'(O22-)âˆ'CuIIUnit Peroxo Binding Geometry Effected by Tridentate Copper Chelation. Journal of the American Chemical Society, 2004, 126, 12716-12717.	13.7	36
38	Characterization and Dioxygen Reactivity of a New Series of Coordinatively Unsaturated Thiolate-Ligated Manganese(II) Complexes. Inorganic Chemistry, 2012, 51, 6633-6644.	4.0	35
39	Sequence proximity between Cu(II) and Cu(I) binding sites of human copper transporter 1 model peptides defines reactivity with ascorbate and O2. Journal of Inorganic Biochemistry, 2016, 158, 70-76.	3.5	35
40	Novel Alkoxide Cluster Topologies Featuring Rare Seesaw Geometry at Transition Metal Centers. Chemistry - A European Journal, 2013, 19, 12225-12228.	3.3	31
41	A [3Feâ€“3S]3+ cluster with exclusively Î¼-sulfide donors. Chemical Communications, 2016, 52, 1174-1177.	4.1	30
42	Both Met(109) and Met(112) are utilized for Cu(II) coordination by the amyloidogenic fragment of the human prion protein at physiological pH. Journal of Inorganic Biochemistry, 2008, 102, 2103-2113.	3.5	29
43	Interactions of Metal-Based and Ligand-Based Electronic Spins in Neutral Tripyrrindione Ï€ Dimers. Inorganic Chemistry, 2017, 56, 6755-6762.	4.0	29
44	Properties of Square-Pyramidal Alkylâˆ'Thiolate Fe^{III} Complexes, Including an Analogue of the Unmodified Form of Nitrile Hydratase. Inorganic Chemistry, 2008, 47, 11228-11236.	4.0	27
45	Enhancing Reactivity via Structural Distortion. Inorganic Chemistry, 2002, 41, 3128-3136.	4.0	26
46	A Ni(Salen)-Biotin Conjugate for Rapid Isolation of Accessible DNA. Journal of the American Chemical Society, 2000, 122, 9046-9047.	13.7	24
47	Influence of Sequential Thiolate Oxidation on a Nitrile Hydratase Mimic Probed by Multiedge X-ray Absorption Spectroscopy. Inorganic Chemistry, 2012, 51, 6032-6045.	4.0	24
48	Use of a Metallopeptideâ€Based Mimic Provides Evidence for a Protonâ€Coupled Electronâ€Transfer Mechanism for Superoxide Reduction by Nickelâ€Containing Superoxide Dismutase. Angewandte Chemie - International Edition, 2013, 52, 2569-2572.	13.8	23
49	Cysteinate Protonation and Water Hydrogen Bonding at the Active-Site of a Nickel Superoxide Dismutase Metallopeptide-Based Mimic: Implications for the Mechanism of Superoxide Reduction. Journal of the American Chemical Society, 2014, 136, 16009-16022.	13.7	22
50	Transformation of a Mononitrosyl Iron Complex to a [2Fe-2S] Cluster by a Cysteine Analogue. Journal of the American Chemical Society, 2014, 136, 7229-7232.	13.7	22
51	Crystallographic and Computational Studies of Luminescent, Binuclear Gold(I) Complexes, Au^I₂(Ph₂P(CH₂)_{<i>n</i>}PPh₂)₂I<sub>2</s (<i>n</i> = 3â€“6). Inorganic Chemistry, 2013, 52, 823-831.	4.0	21
52	A Biochemical Nickel(I) State Supports Nucleophilic Alkyl Addition: A Roadmap for Methyl Reactivity in Acetyl Coenzyme A Synthase. Inorganic Chemistry, 2019, 58, 8969-8982.	4.0	21
53	Use of Metallopeptide Based Mimics Demonstrates That the Metalloprotein Nitrile Hydratase Requires Two Oxidized Cysteinates for Catalytic Activity. Inorganic Chemistry, 2010, 49, 9064-9077.	4.0	19
54	Structure and Unprecedented Reactivity of a Mononuclear Nonheme Cobalt(III) Iodosylbenzene Complex. Angewandte Chemie - International Edition, 2020, 59, 13581-13585.	13.8	19

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55	Synthesis, characterization, and crystal structure of a quadruply bonded dimolybdenum(II) complex containing the water-soluble phosphine 1,3,5-triaza-7-phosphaadamantane (PTA). Inorganica Chimica Acta, 2006, 359, 283-288.	2.4	16
56	A Co(III) Complex in a Mixed Sulfur/Nitrogen Ligand Environment:Â Modeling the Substrate- and Product-Bound Forms of the Metalloenzyme Thiocyanate Hydrolase. Inorganic Chemistry, 2000, 39, 4998-4999.	4.0	15
57	Tripyrrindione as a Redoxâ€Active Ligand: Palladium(II) Coordination in Three Redox States. Angewandte Chemie, 2015, 127, 15107-15110.	2.0	13
58	One Octarepeate Expansion to the Human Prion Protein Alters Both the Zn2+and Cu2+Coordination Environments within the Octarepeate Domain. Inorganic Chemistry, 2011, 50, 1173-1175.	4.0	12
59	Dioxygen and superoxide stability of metallopeptide based mimics of nickel containing superoxide dismutase: The influence of amine/amidate vs. bis-amidate ligation. Journal of Inorganic Biochemistry, 2013, 129, 145-149.	3.5	12
60	The Oxo-Wall Remains Intact: A Tetrahedrally Distorted Co(IV)â€"Oxo Complex. Journal of the American Chemical Society, 2021, 143, 16943-16959.	13.7	12
61	Dinitrogen Insertion and Cleavage by a Metalâ€"Metal Bonded Tricobalt(I) Cluster. Journal of the American Chemical Society, 2021, 143, 5649-5653.	13.7	11
62	Ni K-edge XAS suggests that coordination of NiII to the unstructured amyloidogenic region of the human prion protein produces a Ni2 bis-Î¼-hydroxo dimer. Journal of Inorganic Biochemistry, 2007, 101, 370-373.	3.5	10
63	Chalcogen Impact on Covalency within Molecular [Cu₃(Î¼₃-E)]³⁺ Clusters (E = O, S, Se): A Synthetic, Spectroscopic, and Computational Study. Inorganic Chemistry, 2018, 57, 11382-11392.	4.0	9
64	Adiabaticity of the Proton-Coupled Electron-Transfer Step in the Reduction of Superoxide Effected by Nickel-Containing Superoxide Dismutase Metallopeptide-Based Mimics. Journal of Physical Chemistry B, 2015, 119, 5453-5461.	2.6	5
65	Access to Metal Centers and Fluxional Hydride Coordination Integral for CO₂ Insertion into [Fe₃(Î¼-H)₃]³⁺ Clusters. Inorganic Chemistry, 2021, 60, 7228-7239.	4.0	4
66	Thioester synthesis by a designed nickel enzyme models prebiotic energy conversion. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	4
67	Influence of Sequential Guanidinium Methylation on the Energetics of the GuanidiniumÂ·Â·Â·Guanine Dimer and GuanidiniumÂ·Â·Â·GuanineÂ·Â·Â·Cytosine Trimer: Implications for the Control of ProteinÂ·Â·Â·DNA Interactions by Arginine Methyltransferases. Journal of Physical Chemistry B, 2008, 112, 16995-17002.	2.6	3
68	pH Dependent Reversible Formation of a Binuclear Ni2 Metal-Center within a Peptide Scaffold. Inorganics, 2019, 7, 90.	2.7	3
69	Scaffold-based [Fe]-hydrogenase model: H₂ activation initiates Fe(0)-hydride extrusion and non-biomimetic hydride transfer. Chemical Science, 2021, 12, 12838-12846.	7.4	3
70	Structure and Unprecedented Reactivity of a Mononuclear Nonheme Cobalt(III) Iodosylbenzene Complex. Angewandte Chemie, 2020, 132, 13683-13687.	2.0	2
71	Controlled Protonation of [2Feâ€"2S] Leading to MitoNEET Analogues and Concurrent Cluster Modification. Inorganic Chemistry, 2021, 60, 16074-16078.	4.0	2
72	Preparation and properties of [NiII(BEES)(Cl)](BPh4): a NiII complex in a mixed nitrogen/thioether coordination environment. Inorganica Chimica Acta, 2002, 336, 61-64.	2.4	1

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73	Understanding the mechanism of superoxide reduction by the non-heme iron enzyme superoxide reductase (SOR) using a synthetic analogue approach. Journal of Inorganic Biochemistry, 2003, 96, 20.	3.5	0
74	Dinitrogen Coordination to a Highâ€Spin Diiron(I/II) Species. Angewandte Chemie, 0, , .	2.0	0