

Jeffrey R Harmer

List of Publications by Year in descending order

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111
papers

4,233
citations

87888

38
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128289

60
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122
all docs

122
docs citations

122
times ranked

4642
citing authors

#	ARTICLE	IF	CITATIONS
1	Sodium phosphoethynolate, Na(OCP), as a σ -transfer reagent for the synthesis of N-heterocyclic carbene supported P_3 and PAsP radicals. <i>Chemical Science</i> , 2014, 5, 1545-1554.	7.4	206
2	How Escherichia coli Is Equipped to Oxidize Hydrogen under Different Redox Conditions. <i>Journal of Biological Chemistry</i> , 2010, 285, 3928-3938.	3.4	204
3	A Stable Aminyl Radical Metal Complex. <i>Science</i> , 2005, 307, 235-238.	12.6	203
4	Size dependent oxygen buffering capacity of ceria nanocrystals. <i>Chemical Communications</i> , 2010, 46, 1887-1889.	4.1	201
5	Direct assignment of EPR spectra to structurally defined iron-sulfur clusters in complex I by double electron-electron resonance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1930-1935.	7.1	116
6	Structural information from orientationally selective DEER spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 6840.	2.8	109
7	Metalloenzyme-Inspired Catalysis: Selective Oxidation of Primary Alcohols with an Iridium σ -Aminyl-Radical Complex. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 3567-3570.	13.8	108
8	(L) $_2$ C $_2$ P $_2$: Dicarbondiphosphide Stabilized by N-Heterocyclic Carbenes or Cyclic Diamido Carbenes. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5744-5749.	13.8	102
9	Stable GaX $_2$, InX $_2$ and TlX $_2$ radicals. <i>Nature Chemistry</i> , 2014, 6, 315-319.	13.6	101
10	Structural model for the protein-translocating element of the twin-arginine transport system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E1092-101.	7.1	99
11	Isolation and Characterization of a Bismuth(II) Radical. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10630-10633.	13.8	93
12	EPR Spectroscopic Studies of the Fe σ S Clusters in the O $_2$ -Tolerant [NiFe]-Hydrogenase Hyd-1 from Escherichia coli and Characterization of the Unique [4Fe σ 3S] Cluster by HYSCORE. <i>Journal of the American Chemical Society</i> , 2012, 134, 15581-15594.	13.7	88
13	Formation of a Nickel σ Methyl Species in Methyl-Coenzyme M Reductase, an Enzyme Catalyzing Methane Formation. <i>Journal of the American Chemical Society</i> , 2007, 129, 11028-11029.	13.7	74
14	A Tetracoordinated Rhodium Aminyl Radical Complex. <i>Journal of the American Chemical Society</i> , 2006, 128, 6578-6580.	13.7	70
15	Development of a Metal σ on σ Mediated Base Pair for Electron Transfer in DNA. <i>Chemistry - A European Journal</i> , 2013, 19, 12547-12552.	3.3	70
16	A Nickel Hydride Complex in the Active Site of Methyl-Coenzyme M Reductase: Implications for the Catalytic Cycle. <i>Journal of the American Chemical Society</i> , 2008, 130, 10907-10920.	13.7	68
17	Electronic Delocalization in the Radical Cations of Porphyrin Oligomer Molecular Wires. <i>Journal of the American Chemical Society</i> , 2017, 139, 10461-10471.	13.7	67
18	Coenzyme B Induced Coordination of Coenzyme M via Its Thiol Group to Ni(I) of F430 in Active Methyl-Coenzyme M Reductase. <i>Journal of the American Chemical Society</i> , 2003, 125, 4988-4989.	13.7	59

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19	Highly Efficient Phosphodiester Hydrolysis Promoted by a Dinuclear Copper(II) Complex. <i>Inorganic Chemistry</i> , 2001, 40, 4918-4927.	4.0	58
20	Controlling Au Photodeposition on Large ZnO Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 14271-14283.	8.0	58
21	Covalency in the 4f Shell of <i>tris</i> -Cyclopentadienyl Ytterbium (YbCp ₃) ⁺ A Spectroscopic Evaluation. <i>Journal of the American Chemical Society</i> , 2011, 133, 20644-20660.	13.7	56
22	“Naked” Phosphane Chains and their Fragmentation into Diphosphene Radical Anions. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 4093-4097.	13.8	55
23	(L) ₂ C ₂ P ₂ : Dicarbondiphosphide Stabilized by π -Heterocyclic Carbenes or Cyclic Diamido Carbenes. <i>Angewandte Chemie</i> , 2017, 129, 5838-5843.	2.0	55
24	A Pulse EPR and ENDOR Investigation of the Electronic Structure of a σ -Carbon-Bonded Cobalt(IV) Complex. <i>Journal of Physical Chemistry B</i> , 2002, 106, 2801-2811.	2.6	54
25	Spectroscopic Investigations of Bis(sulfoximine) Copper(II) Complexes and Their Relevance in Asymmetric Catalysis. <i>Journal of the American Chemical Society</i> , 2003, 125, 6222-6227.	13.7	54
26	Spin Density and Coenzyme M Coordination Geometry of the ox ¹ Form of Methyl-Coenzyme M Reductase: A Pulse EPR Study. <i>Journal of the American Chemical Society</i> , 2005, 127, 17744-17755.	13.7	54
27	Efficient biosynthesis of heterodimeric C ₃ -aryl pyrroloindoline alkaloids. <i>Nature Communications</i> , 2018, 9, 4428.	12.8	53
28	A critical evaluation of the mode of incorporation of nitrogen in doped anatase photocatalysts. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 960-969.	2.8	52
29	A Nickel-Alkyl Bond in an Inactivated State of the Enzyme Catalyzing Methane Formation. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3602-3607.	13.8	49
30	Binding of Coenzyme B Induces a Major Conformational Change in the Active Site of Methyl-Coenzyme M Reductase. <i>Journal of the American Chemical Society</i> , 2010, 132, 567-575.	13.7	48
31	Exploiting orientation-selective DEER: determining molecular structure in systems containing Cu(II) centres. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5981-5994.	2.8	48
32	High-Resolution EPR Spectroscopic Investigations of a Homologous Set of d ⁹ -Cobalt(0), d ⁹ -Rhodium(0), and d ⁹ -Iridium(0) Complexes. <i>Chemistry - A European Journal</i> , 2002, 8, 601-611.	3.3	47
33	A novel approach for coal characterization by NMR spectroscopy: global analysis of proton T ₁ and T ₂ relaxations. <i>Fuel</i> , 2001, 80, 417-425.	6.4	45
34	Syntheses, Structures and Electronic Properties of Zwitterionic Iron(II) and Cobalt(II) Complexes Featuring Ambidentate Tris(pyrazolyl)methanide Ligands. <i>Chemistry - A European Journal</i> , 2009, 15, 4350-4365.	3.3	45
35	Pulse EPR Methods for Studying Chemical and Biological Samples Containing Transition Metals. <i>Helvetica Chimica Acta</i> , 2006, 89, 2495-2521.	1.6	44
36	L ₃ C ₃ P ₃ : Tricarbontriphosphide Tricyclic Radicals and Cations Stabilized by Cyclic (alkyl)(amino)carbenes. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 198-202.	13.8	42

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37	Cryogenic 35GHz pulse ENDOR probehead accommodating large sample sizes: Performance and applications. <i>Journal of Magnetic Resonance</i> , 2009, 200, 81-87.	2.1	41
38	Electron Spin Resonance Investigation of Hydrogen Absorption in Ball-Milled Graphite. <i>Journal of Physical Chemistry C</i> , 2009, 113, 5409-5416.	3.1	41
39	Mechanochemically Synthesised Flexible Electrodes Based on Bimetallic Metal-Organic Framework Glasses for the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	41
40	Diaryldichalcogenide radical cations. <i>Chemical Science</i> , 2015, 6, 497-504.	7.4	40
41	Photoisomerization of a Fullerene Dimer. <i>Journal of Physical Chemistry C</i> , 2008, 112, 2802-2804.	3.1	38
42	Characterization of the MCRred2 form of methyl-coenzyme M reductase: a pulse EPR and ENDOR study. <i>Journal of Biological Inorganic Chemistry</i> , 2003, 8, 586-593.	2.6	33
43	Electromeric Rhodium Radical Complexes. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 385-389.	13.8	33
44	DEER-Stitch: Combining three- and four-pulse DEER measurements for high sensitivity, deadtime free data. <i>Journal of Magnetic Resonance</i> , 2012, 223, 98-106.	2.1	30
45	An aqueous non-heme Fe(IV)oxo complex with a basic group in the second coordination sphere. <i>Chemical Communications</i> , 2012, 48, 10880.	4.1	30
46	Understanding the Mechanistic Requirements for Efficient and Stereoselective Alkene Epoxidation by a Cytochrome P450 Enzyme. <i>ACS Catalysis</i> , 2021, 11, 1995-2010.	11.2	30
47	An Altered Heme Environment in an Engineered Cytochrome P450 Enzyme Enables the Switch from Monooxygenase to Peroxygenase Activity. <i>ACS Catalysis</i> , 2022, 12, 1614-1625.	11.2	29
48	Rhodium and Iridium Amino, Amido, and Aminyl Radical Complexes. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 4691-4703.	2.0	28
49	AlM ¹ : An Antibiotic-Degrading Metallohydrolase That Displays Mechanistic Flexibility. <i>Chemistry - A European Journal</i> , 2016, 22, 17704-17714.	3.3	28
50	Corrin nitrogens and remote dimethylbenzimidazole nitrogen interactions in Cob(II)alamin studied with HYSCORE at X- and Q-band. <i>Chemical Physics Letters</i> , 2002, 358, 8-16.	2.6	27
51	Engineering proton conductivity in melanin using metal doping. <i>Journal of Materials Chemistry B</i> , 2020, 8, 8050-8060.	5.8	27
52	Zero-Valent Amino-Olefin Cobalt Complexes as Catalysts for Oxygen Atom Transfer Reactions from Nitrous Oxide. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15323-15328.	13.8	26
53	Synthesis of a Rhodaazacyclopropane and Characterization of Its Radical Cation by EPR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3265-3269.	13.8	25
54	Structure and function of CYP108D1 from <i>Novosphingobium aromaticivorans</i> DSM12444: an aromatic hydrocarbon-binding P450 enzyme. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2012, 68, 277-291.	2.5	25

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55	Orientation-Selective DEER Using Rigid Spin Labels, Cofactors, Metals, and Clusters. Structure and Bonding, 2013, , 283-327.	1.0	24
56	A New Mixed-Valence Mn(II)Mn(III) Compound With Catalase and Superoxide Dismutase Activities. Frontiers in Chemistry, 2018, 6, 491.	3.6	23
57	Zero-Valent Amino-Olefin Cobalt Complexes as Catalysts for Oxygen Atom Transfer Reactions from Nitrous Oxide. Angewandte Chemie, 2016, 128, 15549-15554.	2.0	22
58	A Structural Model of a P450-Ferredoxin Complex from Orientation-Selective Double Electron-Electron Resonance Spectroscopy. Journal of the American Chemical Society, 2018, 140, 2514-2527.	13.7	22
59	$L_3C_3P_3$: Tricarbontriphosphide Tricyclic Radicals and Cations Stabilized by Cyclic (alkyl)(amino)carbenes. Angewandte Chemie, 2018, 130, 204-208.	2.0	22
60	A comparative study of the electronic structures of SrCu ₂ O ₂ and PbCu ₂ O ₂ by density functional theory, high resolution X-ray photoemission and electron paramagnetic resonance spectroscopy. Journal of Materials Chemistry, 2008, 18, 2798.	6.7	21
61	TROPDAD: A New Ligand for the Synthesis of Water-Stable Paramagnetic [16+1]-Electron Rhodium and Iridium Complexes. Chemistry - A European Journal, 2003, 9, 3859-3866.	3.3	20
62	Mechanistic Insights into Stereoselective Catalysis—The Effects of Counterions in a Cull—Bissulfoximine-Catalyzed Diels—Alder Reaction. Chemistry - A European Journal, 2007, 13, 1842-1850.	3.3	20
63	Biophysical Techniques for Distinguishing Ligand Binding Modes in Cytochrome P450 Monooxygenases. Biochemistry, 2020, 59, 1038-1050.	2.5	20
64	Elucidating the mechanism of the Ley—Griffith (TPAP) alcohol oxidation. Chemical Science, 2017, 8, 8435-8442.	7.4	18
65	Characterization of a highly efficient antibiotic-degrading metallo- β -lactamase obtained from an uncultured member of a permafrost community. Metallomics, 2017, 9, 1157-1168.	2.4	17
66	Advanced Pulse EPR Methods for the Characterization of Metalloproteins. Biological Magnetic Resonance, 2009, , 13-61.	0.4	17
67	Cryogenic Q-band (35GHz) probehead featuring large excitation microwave fields for pulse and continuous wave electron paramagnetic resonance spectroscopy: Performance and applications. Journal of Magnetic Resonance, 2008, 190, 280-291.	2.1	16
68	Two sub-states of the red2 state of methyl-coenzyme M reductase revealed by high-field EPR spectroscopy. Journal of Biological Inorganic Chemistry, 2007, 12, 1097-1105.	2.6	15
69	Characterisation of the paramagnetic [2Fe—2S] ⁺ centre in palustrisredoxin-B (PuxB) from Rhodospseudomonas palustris CGA009: g-matrix determination and spin coupling analysis. Physical Chemistry Chemical Physics, 2012, 14, 6526.	2.8	15
70	Phosphanyl Cyanophosphide Salts: Versatile PCN Building Blocks. Angewandte Chemie - International Edition, 2019, 58, 11429-11433.	13.8	15
71	The Coordination Chemistry of the Pentadentate 2,2,6,6-Tetrakis(aminomethyl)-4-azaheptane (ditame). European Journal of Inorganic Chemistry, 2003, 2003, 1340-1354.	2.0	14
72	Insights into the Electronic Structure of Cu ^{II} Bound to an Imidazole Analogue of Westiellamide. Inorganic Chemistry, 2014, 53, 12323-12336.	4.0	14

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73	Stereochemical Control of the Redox Potential of Tetracoordinate Rhodium Complexes. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 2567-2570.	13.8	13
74	Electron Tunneling in Lithium-Ammonia Solutions Probed by Frequency-Dependent Electron Spin Relaxation Studies. <i>Journal of the American Chemical Society</i> , 2012, 134, 9209-9218.	13.7	13
75	Multielement NMR Studies of the Liquid-Liquid Phase Separation and the Metal-to-Nonmetal Transition in Fluid Lithium and Sodium-Ammonia Solutions. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13322-13334.	2.6	13
76	Metastable phosphorus neutral monoradical: a key intermediate in the bicyclic cage formation. <i>Dalton Transactions</i> , 2019, 48, 2549-2553.	3.3	13
77	From 0 to II in One-Electron Steps: A Series of Ruthenium Complexes Supported by TropPPh ₂ . <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11999-12002.	13.8	12
78	Coordination and binding geometry of methyl-coenzyme M in the redox state of methyl-coenzyme M reductase. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 1275-1289.	2.6	11
79	Trivalent copper stabilised by acetylacetonone dithiocarbamate Schiff base ligands: structural, spectroscopic and electrochemical properties. <i>Dalton Transactions</i> , 2019, 48, 15501-15514.	3.3	11
80	Phosphanyl Cyanophosphide Salts: Versatile PCN Building Blocks. <i>Angewandte Chemie</i> , 2019, 131, 11551-11555.	2.0	10
81	The oxidation-reduction and electrocatalytic properties of CO dehydrogenase from <i>Oligotropha carboxidovorans</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2020, 1861, 148118.	1.0	9
82	Using EPR to follow reversible dihydrogen addition to paramagnetic clusters of high hydride count: [Rh ₆ (PCy ₃) ₆ H ₁₂] ⁺ and [Rh ₆ (PCy ₃) ₆ H ₁₄] ⁺ . <i>Dalton Transactions</i> , 2010, 39, 1726-1733.	3.3	8
83	Non-uniform sampling in EPR – optimizing data acquisition for HYSCORE spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16378-16382.	2.8	8
84	Reaction mechanism of the metallohydrolase CpsB from <i>Streptococcus pneumoniae</i> , a promising target for novel antimicrobial agents. <i>Dalton Transactions</i> , 2017, 46, 13194-13201.	3.3	8
85	Heteroatom-Interchanged Isomers of Lissoclinamide 5: Copper(II) Complexation, Halide Binding, and Biological Activity. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 1465-1476.	2.4	8
86	A Trap-Door Mechanism for Zinc Acquisition by <i>Streptococcus pneumoniae</i> AdcA. <i>MBio</i> , 2021, 12, .	4.1	8
87	Amyloid β chaperone – lipocalin-type prostaglandin D synthase acts as a peroxidase in the presence of heme. <i>Biochemical Journal</i> , 2020, 477, 1227-1240.	3.7	8
88	A rapid coal characterisation analysis by low-resolution NMR spectroscopy and partial least-squares regression. <i>Fuel</i> , 2001, 80, 1341-1349.	6.4	7
89	From 0 to II in One-Electron Steps: A Series of Ruthenium Complexes Supported by TropPPh ₂ . <i>Angewandte Chemie</i> , 2016, 128, 12178-12181.	2.0	7
90	The central active site arginine in sulfite oxidizing enzymes alters kinetic properties by controlling electron transfer and redox interactions. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 19-27.	1.0	7

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91	Cross-linking, DEER-spectroscopy and molecular dynamics confirm the inward facing state of P-glycoprotein in a lipid membrane. <i>Journal of Structural Biology</i> , 2020, 211, 107513.	2.8	7
92	Active site architecture reveals coordination sphere flexibility and specificity determinants in a group of closely related molybdoenzymes. <i>Journal of Biological Chemistry</i> , 2021, 296, 100672.	3.4	7
93	High Resolution Crystal Structures of the Acetohydroxyacid Synthase-Pyruvate Complex Provide New Insights into Its Catalytic Mechanism. <i>ChemistrySelect</i> , 2017, 2, 11981-11988.	1.5	6
94	Electrochemically driven catalysis of the bacterial molybdenum enzyme YiiM. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2022, 1863, 148523.	1.0	6
95	The Cytochrome P450 OxyA from the Kistamicin Biosynthesis Cyclization Cascade is Highly Sensitive to Oxidative Damage. <i>Frontiers in Chemistry</i> , 2022, 10, 868240.	3.6	6
96	Radio frequencies in EPR: Conventional and advanced use. <i>Applied Magnetic Resonance</i> , 2007, 31, 627-647.	1.2	5
97	How Escherichia coli is equipped to oxidize hydrogen under different redox conditions.. <i>Journal of Biological Chemistry</i> , 2010, 285, 20421.	3.4	5
98	CW and Pulse EPR of Cytochrome P450 to Determine Structure and Function. <i>Biological Magnetic Resonance</i> , 2017, , 103-142.	0.4	5
99	Design of silk proteins with increased heme binding capacity and fabrication of silk-heme materials. <i>Journal of Inorganic Biochemistry</i> , 2017, 177, 219-227.	3.5	5
100	Mapping the Pathway to Organocopper(II) Complexes Relevant to Atom Transfer Radical Polymerization. <i>Inorganic Chemistry</i> , 2021, 60, 10648-10655.	4.0	5
101	TOAC spin-labeled peptides tailored for DNP-NMR studies in lipid membrane environments. <i>Biophysical Journal</i> , 2021, 120, 4501-4511.	0.5	5
102	Enzyme Electrode Biosensors for <i>N</i> -Hydroxylated Prodrugs Incorporating the Mitochondrial Amidoxime Reducing Component. <i>Analytical Chemistry</i> , 2022, 94, 9208-9215.	6.5	5
103	EPR analysis of cyanide complexes of wild-type human neuroglobin and mutants in comparison to horse heart myoglobin. <i>Biophysical Chemistry</i> , 2014, 190-191, 8-16.	2.8	4
104	Non-Oxo Vanadium(IV) Metalloradical Complexes with Bidentate 1,2-Dithienylethene Ligands: Observation of Reversible Cyclization of the Ligand Scaffold in Solution. <i>Chemistry - A European Journal</i> , 2020, 26, 1335-1343.	3.3	4
105	Copper Complexes of Benzoylacetone Bis-Thiosemicarbazones: Metal and Ligand Based Redox Reactivity. <i>Australian Journal of Chemistry</i> , 2021, 74, 34.	0.9	4
106	140 H/D Isotopomers Identified by Long-Range NMR Hyperfine Shifts in Ruthenium(III) Ammine Complexes. Hyperconjugation in Ru(NH ₃) ₃ Bonding. <i>Inorganic Chemistry</i> , 2013, 52, 7280-7294.	4.0	3
107	Catalytic electrochemistry of the bacterial Molybdoenzyme YcbX. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2022, 1863, 148579.	1.0	3
108	Electromeric Rhodium Radical Complexes. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 1909-1909.	13.8	2

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109	Optimizing the transformation of HYSCORE data using the maximum entropy algorithm. Journal of Magnetic Resonance, 2019, 301, 30-39.	2.1	2
110	Phosphanyl Cyanophosphide Salts: Versatile PCN Building Blocks. Angewandte Chemie, 2019, 131, 11666.	2.0	0
111	New perspectives for olefin complexes: Synthesis and characterisation of stable rhodium(0) and iridium(0) complexes. Special Publication - Royal Society of Chemistry, 2007, , 222-239.	0.0	0