Paul H Walton

List of Publications by Year
in descending order

89 papers	6,139 citations	109321 35 h-index	69250 77 g-index
94 all docs	94 docs citations	94 times ranked	5019 citing authors

#	Article	IF	Citations
1	Intermediate-spin iron(<scp>iv</scp>)-oxido species with record reactivity. Faraday Discussions, 2022, 234, 232-244.	3.2	7
2	Mapping the protonation states of the histidine brace in an AA10 lytic polysaccharide monooxygenase using CW-EPR spectroscopy and DFT calculations. Faraday Discussions, 2022, 234, 336-348.	3.2	5
3	Activity and substrate specificity of lytic polysaccharide monooxygenases: An <scp>ATR FTIR</scp> â€based sensitive assay tested on a novel species from <i>Pseudomonas putida</i>. Protein Science, 2022, 31, 591-601.	7.6	5
4	Deletion of AA9 Lytic Polysaccharide Monooxygenases Impacts A. nidulans Secretome and Growth on Lignocellulose. Microbiology Spectrum, 2022, 10, .	3.0	2
5	On the roles of AA15 lytic polysaccharide monooxygenases derived from the termite Coptotermes gestroi. Journal of Inorganic Biochemistry, 2021, 216, 111316.	3.5	16
6	Secreted pectin monooxygenases drive plant infection by pathogenic oomycetes. Science, 2021, 373, 774-779.	12.6	106
7	Copper Oxygenases. , 2021, , 500-523.		2
8	A fungal family of lytic polysaccharide monooxygenase-like copper proteins. Nature Chemical Biology, 2020, 16, 345-350.	8.0	63
9	Activation of O₂ and H₂O₂ by Lytic Polysaccharide Monooxygenases. ACS Catalysis, 2020, 10, 12760-12769.	11.2	44
10	Cytotoxic (<i>cis</i>,<i>cis</i>-1,3,5-triaminocyclohexane)ruthenium(<scp>ii</scp>)-diphosphine complexes; evidence for covalent binding <i>and</i> intercalation with DNA. Dalton Transactions, 2020, 49, 15219-15230.	3.3	4
11	Mechanistic basis of substrateâ€“O₂coupling within a chitin-active lytic polysaccharide monooxygenase: An integrated NMR/EPR study. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19178-19189.	7.1	42
12	Enzymes knuckle down to the job. Nature Chemical Biology, 2020, 16, 815-816.	8.0	1
13	Insights from semi-oriented EPR spectroscopy studies into the interaction of lytic polysaccharide monooxygenases with cellulose. Dalton Transactions, 2020, 49, 3413-3422.	3.3	10
14	Discovery of a Fungal Copper Radical Oxidase with High Catalytic Efficiency toward 5-Hydroxymethylfurfural and Benzyl Alcohols for Bioprocessing. ACS Catalysis, 2020, 10, 3042-3058.	11.2	46
15	Discovery, activity and characterisation of an AA10 lytic polysaccharide oxygenase from the shipworm symbiont Teredinibacter turnerae. Biotechnology for Biofuels, 2019, 12, 232.	6.2	27
16	Formation of a Copper(II)â€“Tyrosyl Complex at the Active Site of Lytic Polysaccharide Monooxygenases Following Oxidation by H₂O₂. Journal of the American Chemical Society, 2019, 141, 18585-18599.	13.7	66
17	Molecular Mechanisms of Oxygen Activation and Hydrogen Peroxide Formation in Lytic Polysaccharide Monooxygenases. ACS Catalysis, 2019, 9, 4958-4969.	11.2	89
18	An ancient family of lytic polysaccharide monooxygenases with roles in arthropod development and biomass digestion. Nature Communications, 2018, 9, 756.	12.8	192

#	ARTICLE	IF	CITATIONS
19	Lytic xylan oxidases from wood-decay fungi unlock biomass degradation. Nature Chemical Biology, 2018, 14, 306-310.	8.0	269
20	QM/MM Studies into the H₂O₂-Dependent Activity of Lytic Polysaccharide Monooxygenases: Evidence for the Formation of a Caged Hydroxyl Radical Intermediate. ACS Catalysis, 2018, 8, 1346-1351.	11.2	117
21	Production and spectroscopic characterization of lytic polysaccharide monooxygenases. Methods in Enzymology, 2018, 613, 63-90.	1.0	14
22	Structure and function of a glycoside hydrolase family 8 endoxylanase from<i>Teredinibacter turnerae</i>. Acta Crystallographica Section D: Structural Biology, 2018, 74, 946-955.	2.3	10
23	Structural studies of the unusual metal-ion site of the GH124 endoglucanase from <i>Ruminiclostridium thermocellum</i>. Acta Crystallographica Section F, Structural Biology Communications, 2018, 74, 496-505.	0.8	3
24	Bracing copper for the catalytic oxidation of Câ€“H bonds. Nature Catalysis, 2018, 1, 571-577.	34.4	131
25	Structural and electronic determinants of lytic polysaccharide monooxygenase reactivity on polysaccharide substrates. Nature Communications, 2017, 8, 1064.	12.8	134
26	On the catalytic mechanisms of lytic polysaccharide monooxygenases. Current Opinion in Chemical Biology, 2016, 31, 195-207.	6.1	195
27	Activity, stability and 3-D structure of the Cu(<scp>ii</scp>) form of a chitin-active lytic polysaccharide monooxygenase from Bacillus amyloliquefaciens. Dalton Transactions, 2016, 45, 16904-16912.	3.3	50
28	Heterogeneity in the Histidine-brace Copper Coordination Sphere in Auxiliary Activity Family 10 (AA10) Lytic Polysaccharide Monooxygenases. Journal of Biological Chemistry, 2016, 291, 12838-12850.	3.4	45
29	The Contribution of Non-catalytic Carbohydrate Binding Modules to the Activity of Lytic Polysaccharide Monooxygenases. Journal of Biological Chemistry, 2016, 291, 7439-7449.	3.4	102
30	The molecular basis of polysaccharide cleavage by lytic polysaccharide monooxygenases. Nature Chemical Biology, 2016, 12, 298-303.	8.0	264
31	Structureâ€“function characterization reveals new catalytic diversity in the galactose oxidase and glyoxal oxidase family. Nature Communications, 2015, 6, 10197.	12.8	79
32	Lignocellulose degradation mechanisms across the Tree of Life. Current Opinion in Chemical Biology, 2015, 29, 108-119.	6.1	478
33	Structure and boosting activity of a starch-degrading lytic polysaccharide monooxygenase. Nature Communications, 2015, 6, 5961.	12.8	254
34	Lytic Polysaccharide Monooxygenases in Biomass Conversion. Trends in Biotechnology, 2015, 33, 747-761.	9.3	233
35	A novel thermostable xylanase GH10 from Malbranchea pulchella expressed in Aspergillus nidulans with potential applications in biotechnology. Biotechnology for Biofuels, 2014, 7, 115.	6.2	60
36	Structure of the virulence-associated protein VapD from the intracellular pathogen<i>Rhodococcus equi</i>. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 2139-2151.	2.5	17

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37	Discovery and characterization of a new family of lytic polysaccharide monooxygenases. Nature Chemical Biology, 2014, 10, 122-126.	8.0	329
38	Spectroscopic and computational insight into the activation of O ₂ by the mononuclear Cu center in polysaccharide monooxygenases. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8797-8802.	7.1	190
39	Recent insights into copper-containing lytic polysaccharide mono-oxygenases. Current Opinion in Structural Biology, 2013, 23, 660-668.	5.7	175
40	<i>cis</i>-1,3,5-Triaminocyclohexane as a Facially Capping Ligand for Ruthenium(II). Inorganic Chemistry, 2013, 52, 4517-4527.	4.0	8
41	The Copper Active Site of CBM33 Polysaccharide Oxygenases. Journal of the American Chemical Society, 2013, 135, 6069-6077.	13.7	170
42	Polymer imprinting with iron-oxo-hydroxo clusters: [Fe6O2(OH)2(O2CC(Cl)î€CH2)12(H2O)2], [Fe6O2(OH)2(O2Câ€"Phâ€"(CH)î€CH2)12(H2O)2] and [{Fe(O2CC(Cl)î€CH2)(OMe)2}10]. Dalton Transactions, 2012, 41, 208-218.	3.3	3
43	Insights into the oxidative degradation of cellulose by a copper metalloenzyme that exploits biomass components. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15079-15084.	7.1	861
44	Nanocomposite hydrogelsâ€"Controlled synthesis of chiral polyaniline nanofibers and their inclusion in agarose. Synthetic Metals, 2009, 159, 2135-2140.	3.9	21
45	On the syntheses, NMR spectroscopic and structural characterisations of [CuL(C2H4)]Â·PF6 and [Cu2L2(Î¼-C4H6)]Â·2PF6: L = (Â±)-N,Nâ€²-bis(2,4,6-trimethylbenzylidene)-1,2-diaminocyclohexane. Dalton Transactions, 2009, , 3143.	3.3	12
46	On the oxidation of alkyl and aryl sulfides by [(Me3TACN)MnVO(OH)2]+: A density functional study. Inorganica Chimica Acta, 2008, 361, 1079-1086.	2.4	11
47	Controlled Synthesis of Optically Active Polyaniline Nanorods and Nanostructured Gold Microspheres Using Tetrachloroaurate as an Efficient Oxidant of Aniline. Macromolecules, 2008, 41, 3417-3421.	4.8	31
48	An investigation of the reduction in aqueous acetonitrile of 4-methoxybenzenediazonium ion by the tetrakis(acetonitrile)Cu(i) cation catalysed by hydrogenphosphate dianion. Organic and Biomolecular Chemistry, 2007, 5, 679.	2.8	5
49	Syntheses of copper(i)cis-1,3,5-tri-iminocyclohexane complexes. Dalton Transactions, 2006, , 1790.	3.3	20
50	(N-Benzyl-bis-Nâ€²,Nâ€³-salicylidene)-cis-1,3,5-triaminocyclohexane copper(ii): a novel catalyst for the aerobic oxidation of benzyl alcohol. Dalton Transactions, 2006, , 172-176.	3.3	40
51	Catalytic alcohol oxidation by an unsymmetrical 5-coordinate copper complex: electronic structure and mechanism. Dalton Transactions, 2006, , 159-167.	3.3	27
52	Manganese 1,4,7-trimethyl-1,4,7-triazacyclononane complexes: Versatile catalysts for the oxidation of organic compounds with hydrogen peroxide. Journal of Molecular Catalysis A, 2006, 251, 114-122.	4.8	56
53	Organosulfur oxidation by hydrogen peroxide using a dinuclear Mn-1,4,7-trimethyl-1,4,7-triazacyclononane complex. Tetrahedron Letters, 2006, 47, 2005-2008.	1.4	17
54	Mono-benzyl substituted cis,cis-1,3,5-triaminocyclohexanes. Tetrahedron Letters, 2005, 46, 6441-6443.	1.4	7

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55	The First ?6-Peroxide Transition-Metal Complex: [Ni8(L)12(O2)]2+. Angewandte Chemie - International Edition, 2005, 44, 1392-1395.	13.8	26
56	Mono-benzyl Substituted cis,cis-1,3,5-Triaminocyclohexanes.. ChemInform, 2005, 36, no.	0.0	0
57	Dalton Discussion No. 8. Metals: centres of biological activity. Dalton Transactions, 2005, , 3372.	3.3	0
58	Synthesis and characterisation of cis-dioxomolybdenum(vi) complexes of N-substituted 3-hydroxy-2-pyridinonesElectronic supplementary information (ESI) available: ORTEP plot and structural details of [MoO2(Lb)2]. See http://www.rsc.org/suppdata/dt/b4/b407221a/. Dalton Transactions, 2004, , 2458.	3.3	17
59	Promotion of Sandmeyer hydroxylation (homolytic hydroxydediazoniation) and hydrodediazoniation by chelation of the copper catalyst: bidentate ligandsSandmeyer reactions. Part 8. For part 7 see ref. 1.Electronic supplementary information (ESI) available: EPR evidence for the formation of binuclear complexes by 2-hydroxycarboxylates; reprise of the radical clock results for 2-hydroxycarboxylates. See http://www.rsc.org/suppdata/ob/b4/b404699d/. Organic and Biomolecular Chemistry, 2004, 2, 1838.	2.8	14
60	99mTc-labelled human serum transferrin for tumour imaging: an in vitro and in vivo study of the complex. Nuclear Medicine Communications, 2004, 25, 387-391.	1.1	10
61	Ligand design in coordination chemistry: approaches to new catalysts, new materials, and a more sustainable environment. Dalton Transactions, 2003, , 1869.	3.3	96
62	Ligand Design in Coordination Chemistry: Approaches to New Catalysts, New Materials, and a More Sustainable Environment. ChemInform, 2003, 34, no.	0.0	1
63	Synthesis and structure of [Zn(OMe)(L)]Â·[Zn(OH)(L)]Â·2(BPh4), L = cis,cis-1,3,5-tris[(E,E)-3-(2-furyl)acrylideneamino]cyclohexane: structural models of carbonic anhydrase and liver alcohol dehydrogenase. Chemical Communications, 2003, , 1572-1573.	4.1	42
64	The labelling of human serum transferrin with 99mTc and a study concerning uptake of the complex by tumour cells. Nuclear Medicine Communications, 2002, 23, 1085-1090.	1.1	6
65	Phenoxyl radical FeIII complex of cis,cis-1,3,5-tris(3â€²,5â€²-di-tert-butylsalicylaldimino)cyclohexane, spectro-electrochemical and structural studies. Dalton Transactions RSC, 2002, , 1253-1255.	2.3	22
66	Preparation of cationic cobalt phenoxide and ethoxide complexes and their reversible reaction with carbon dioxide. Dalton Transactions RSC, 2002, , 2797-2799.	2.3	12
67	Sandmeyer reactions. Part 6.1 A mechanistic investigation into the reduction and ligand transfer steps of Sandmeyer cyanation. Perkin Transactions II RSC, 2002, , 1126-1134.	1.1	24
68	Sandmeyer reactions. Part 7.1 An investigation into the reduction steps of Sandmeyer hydroxylation and chlorination reactions. Perkin Transactions II RSC, 2002, , 1135-1150.	1.1	147
69	Sandmeyer reactions. Part 5. Estimation of the rates of 1,5-aryl/aryl radical translocation and cyclisation during Pschorr fluorenone synthesis with a comparative analysis of reaction energetics. Perkin Transactions II RSC, 2001, , 214-228.	1.1	25
70	Tuning the metal-based redox potentials of manganese cis,cis-1,3,5-triaminocyclohexane complexes. Dalton Transactions RSC, 2001, , 1159-1161.	2.3	19
71	Synthesis, characterisation and reactivity of ruthenium bis-bifluoride, ruthenium hydride bifluoride and ruthenium hydride fluoride complexes. Dalton Transactions RSC, 2001, , 1676-1685.	2.3	38
72	Syntheses and structures of M(L)(X)BPh4 complexes {M=Co(II), Zn(II); L=cis-1,3,5-tris[3-(2-furyl)prop-2-enylideneamino]cyclohexane, X=OAc, NO3}: structural models of the active site of carbonic anhydrase. Journal of Biological Inorganic Chemistry, 2001, 6, 367-377.	2.6	18

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73	Syntheses and structures of a range of metal complexes with the ligand cis,cis-1,3,5-(E,E)-tris(phenylpropenylideneamino)cyclohexane. New Journal of Chemistry, 2000, 24, 269-273.	2.8	12
74	A selective uranium extraction agent prepared by polymer imprinting. Chemical Communications, 2000, , 273-274.	4.1	42
75	Nickel-Assisted Carbon-Fluorine Bond Activation of 2,4,6-Trifluoropyrimidine: Synthesis of New Pyrimidine and Pyrimidinone Derivatives. Angewandte Chemie - International Edition, 1999, 38, 3326-3329.	13.8	120
76	Structures of [Co(II)(L)(NO3)(HOCH3)n]BPh4 (n = 4, 5) complexes (L =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (cis,cis-1,3,5-triam centre. Chemical Communications, 1999, , 1647-1648.	4.1	16
77	Spectroscopic, kinetic and mechanistic studies of the influence of ligand and substrate concentration on the activation by peroxides of CuIâ€“thiolate and other CuI complexes. Journal of the Chemical Society Perkin Transactions II, 1999, , 1115-1122.	0.9	28
78	Self-assembly preparation, structure and magnetic studies of a novel dinuclear copper(II) complex: [Cu2(Î¼-OH)(Î¼-OAc)(Î¼-L)][BF4]2 [Lâ€…=â€…bis-1,3-(cis,cis-1,3,5-triaminocyclohexane)xylylidiene]. Journal of the Chemical Society Dalton Transactions, 1998, , 2449-2450.	1.1	32
79	Syntheses and Single-Crystal X-ray Structures of a Series of Monosubstitutedcis,cis-1,3,5-Triaminocyclohexane-Based Complexes. Inorganic Chemistry, 1997, 36, 2594-2600.	4.0	26
80	Transient Photochemistry, Matrix Isolation, and Molecular Structure ofcis-Ru(dmpm)2H2(dmpm =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.3	14
81	Preparations and structure of noval cis,cis-1,3,5-triaminocyclohexana based zinc complexes: development of new carbonic anhydrase models with variable superstructures. Chemical Communications, 1996, , 27.	4.1	29
82	Preparations and structures of a series of novel, mono-substituted cis,cis-1,3,5-triaminocyclohexane-based complexes. Journal of the Chemical Society Dalton Transactions, 1996, , 401.	1.1	7
83	Stereognostic coordination chemistry 4 the design and synthesis of a selective uranyl ion complexant. Inorganica Chimica Acta, 1995, 240, 593-601.	2.4	37
84	Bis(Âµ-2-cyanoguanidine)-bis[(2-cyanoguanidine)copper(I)], a planar dimeric cation containing co-ordinatively unsaturated copper(I). Journal of the Chemical Society Dalton Transactions, 1995, , 957-962.	1.1	19
85	Three- and four-co-ordinate copper(I) complexes: 1:1 and 1:2 1-cyanoguanidineâ€“copper(I) halide adducts. Journal of the Chemical Society Dalton Transactions, 1994, , 1935-1942.	1.1	23
86	Bis(Âµ-pyridazine)-bis[(2-cyanoguanidine)copper(I)] cation: a molecule containing two co-ordinatively unsaturated copper(I) centres. Journal of the Chemical Society Dalton Transactions, 1994, , 2483-2488.	1.1	23
87	Structure of tetrakis(Î¼-acetato-5ÎºO:ÎºO')-bis(2-cyano-ÎºN-guanidine)dicopper(II). Acta Crystallographica Section C: Crystal Structure Communications, 1993, 49, 1047-1049.	0.4	5
88	[Cu2{(NH2)2CNCN}4]2+. A novel dimeric cation containing co-ordinatively unsaturated copper(I) centres. Journal of the Chemical Society Chemical Communications, 1989, , 502.	2.0	10
89	Polycyclic Aromatic Hydrocarbons. , 0, , 378-399.		2