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	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
2	Lignocellulose degradation mechanisms across the Tree of Life. Current Opinion in Chemical Biology, 2015, 29, 108-119.	6.1	478
3	Discovery and characterization of a new family of lytic polysaccharide monooxygenases. Nature Chemical Biology, 2014, 10, 122-126.	8.0	329
4	Lytic xylan oxidases from wood-decay fungi unlock biomass degradation. Nature Chemical Biology, 2018, 14, 306-310.	8.0	269
5	The molecular basis of polysaccharide cleavage by lytic polysaccharide monooxygenases. Nature Chemical Biology, 2016, 12, 298-303.	8.0	264
6	Structure and boosting activity of a starch-degrading lytic polysaccharide monooxygenase. Nature Communications, 2015, 6, 5961.	12.8	254
7	Lytic Polysaccharide Monooxygenases in Biomass Conversion. Trends in Biotechnology, 2015, 33, 747-761.	9.3	233
8	On the catalytic mechanisms of lytic polysaccharide monooxygenases. Current Opinion in Chemical Biology, 2016, 31, 195-207.	6.1	195
9	An ancient family of lytic polysaccharide monooxygenases with roles in arthropod development and biomass digestion. Nature Communications, 2018, 9, 756.	12.8	192
10	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
11	Recent insights into copper-containing lytic polysaccharide mono-oxygenases. Current Opinion in Structural Biology, 2013, 23, 660-668.	5.7	175
12	The Copper Active Site of CBM33 Polysaccharide Oxygenases. Journal of the American Chemical Society, 2013, 135, 6069-6077.	13.7	170
13	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
14	Structural and electronic determinants of lytic polysaccharide monooxygenase reactivity on polysaccharide substrates. Nature Communications, 2017, 8, 1064.	12.8	134
15	Bracing copper for the catalytic oxidation of Câ€“H bonds. Nature Catalysis, 2018, 1, 571-577.	34.4	131
16	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
17	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
18	Secreted pectin monooxygenases drive plant infection by pathogenic oomycetes. Science, 2021, 373, 774-779.	12.6	106

#	Article	IF	Citations
19	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
20	Ligand design in coordination chemistry: approaches to new catalysts, new materials, and a more sustainable environment. Dalton Transactions, 2003, , 1869.	3.3	96
21	Molecular Mechanisms of Oxygen Activation and Hydrogen Peroxide Formation in Lytic Polysaccharide Monooxygenases. ACS Catalysis, 2019, 9, 4958-4969.	11.2	89
22	Structureâ€“function characterization reveals new catalytic diversity in the galactose oxidase and glyoxal oxidase family. Nature Communications, 2015, 6, 10197.	12.8	79
23	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
24	A fungal family of lytic polysaccharide monooxygenase-like copper proteins. Nature Chemical Biology, 2020, 16, 345-350.	8.0	63
25	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
26	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
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	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
29	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
30	Activation of O₂ and H₂O₂ by Lytic Polysaccharide Monooxygenases. ACS Catalysis, 2020, 10, 12760-12769.	11.2	44
31	A selective uranium extraction agent prepared by polymer imprinting. Chemical Communications, 2000, , 273-274.	4.1	42
32	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
33	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
34	(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
35	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
36	Stereognostic coordination chemistry 4 the design and synthesis of a selective uranyl ion complexant. Inorganica Chimica Acta, 1995, 240, 593-601.	2.4	37

#	Article	IF	Citations
37	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
38	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
39	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
40	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
41	Catalytic alcohol oxidation by an unsymmetrical 5-coordinate copper complex: electronic structure and mechanism. Dalton Transactions, 2006, , 159-167.	3.3	27
42	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
43	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
44	The First ?6-Peroxide Transition-Metal Complex: [Ni8(L)12(O2)]2+. Angewandte Chemie - International Edition, 2005, 44, 1392-1395.	13.8	26
45	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
46	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
47	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
48	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
49	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
50	Nanocomposite hydrogelsâ€"Controlled synthesis of chiral polyaniline nanofibers and their inclusion in agarose. Synthetic Metals, 2009, 159, 2135-2140.	3.9	21
51	Syntheses of copper(i)cis-1,3,5-tri-iminocyclohexane complexes. Dalton Transactions, 2006, , 1790.	3.3	20
52	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
53	Tuning the metal-based redox potentials of manganese cis,cis-1,3,5-triaminocyclohexane complexes. Dalton Transactions RSC, 2001, , 1159-1161.	2.3	19
54	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

#	Article	IF	Citations
55	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
56	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
57	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
58	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
59	On the roles of AA15 lytic polysaccharide monooxygenases derived from the termite Coptotermes gestroi. Journal of Inorganic Biochemistry, 2021, 216, 111316.	3.5	16
60	Transient Photochemistry, Matrix Isolation, and Molecular Structure ofcis-Ru(dmpm)2H2(dmpm =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.3	14
61	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
62	Production and spectroscopic characterization of lytic polysaccharide monooxygenases. Methods in Enzymology, 2018, 613, 63-90.	1.0	14
63	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
64	Preparation of cationic cobalt phenoxide and ethoxide complexes and their reversible reaction with carbon dioxide. Dalton Transactions RSC, 2002, , 2797-2799.	2.3	12
65	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
66	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
67	[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
68	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
69	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
70	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
71	<i>cis</i>-1,3,5-Triaminocyclohexane as a Facially Capping Ligand for Ruthenium(II). Inorganic Chemistry, 2013, 52, 4517-4527.	4.0	8
72	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

#	Article	IF	Citations
73	Mono-benzyl substituted cis,cis-1,3,5-triaminocyclohexanes. Tetrahedron Letters, 2005, 46, 6441-6443.	1.4	7
74	Intermediate-spin iron(<scp>iv</scp>)-oxido species with record reactivity. Faraday Discussions, 2022, 234, 232-244.	3.2	7
75	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
76	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
77	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
78	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
79	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
80	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
81	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
82	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
83	Polycyclic Aromatic Hydrocarbons. , 0, , 378-399.		2
84	Copper Oxygenases. , 2021, , 500-523.		2
85	Deletion of AA9 Lytic Polysaccharide Monooxygenases Impacts A. nidulans Secretome and Growth on Lignocellulose. Microbiology Spectrum, 2022, 10, .	3.0	2
86	Ligand Design in Coordination Chemistry: Approaches to New Catalysts, New Materials, and a More Sustainable Environment. ChemInform, 2003, 34, no.	0.0	1
87	Enzymes knuckle down to the job. Nature Chemical Biology, 2020, 16, 815-816.	8.0	1
88	Mono-benzyl Substituted cis,cis-1,3,5-Triaminocyclohexanes.. ChemInform, 2005, 36, no.	0.0	0
89	Dalton Discussion No. 8. Metals: centres of biological activity. Dalton Transactions, 2005, , 3372.	3.3	0