Nicholas Cox

List of Publications by Year
in descending order

77 papers	5,597 citations	117625 34 h-index	79698 73 g-index
82 all docs	82 docs citations	82 times ranked	3706 citing authors

#	Article	IF	Citations
1	Biological Water Oxidation. Accounts of Chemical Research, 2013, 46, 1588-1596.	15.6	453
2	Electronic structure of the oxygen-evolving complex in photosystem II prior to O-O bond formation. Science, 2014, 345, 804-808.	12.6	432
3	Two Interconvertible Structures that Explain the Spectroscopic Properties of the Oxygenâ€Evolving Complex of Photosystemâ€…II in the S₂ State. Angewandte Chemie - International Edition, 2012, 51, 9935-9940.	13.8	342
4	Charge separation in Photosystem II: A comparative and evolutionary overview. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 26-43.	1.0	293
5	Metal oxidation states in biological water splitting. Chemical Science, 2015, 6, 1676-1695.	7.4	275
6	Theoretical Evaluation of Structural Models of the S₂ State in the Oxygen Evolving Complex of Photosystem II: Protonation States and Magnetic Interactions. Journal of the American Chemical Society, 2011, 133, 19743-19757.	13.7	271
7	Detection of the Water-Binding Sites of the Oxygen-Evolving Complex of Photosystem II Using W-Band ¹⁷O Electronâ€“Electron Double Resonance-Detected NMR Spectroscopy. Journal of the American Chemical Society, 2012, 134, 16619-16634.	13.7	248
8	Reflections on substrate water and dioxygen formation. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 1020-1030.	1.0	234
9	Effect of Ca²⁺/Sr²⁺ Substitution on the Electronic Structure of the Oxygen-Evolving Complex of Photosystem II: A Combined Multifrequency EPR, ⁵⁵Mn-ENDOR, and DFT Study of the S₂ State. Journal of the American Chemical Society, 2011, 133, 3635-3648.	13.7	211
10	Structural adaptations of photosynthetic complex I enable ferredoxin-dependent electron transfer. Science, 2019, 363, 257-260.	12.6	162
11	A five-coordinate Mn(<scp>iv</scp>) intermediate in biological water oxidation: spectroscopic signature and a pivot mechanism for water binding. Chemical Science, 2016, 7, 72-84.	7.4	158
12	Water oxidation in photosystem II. Photosynthesis Research, 2019, 142, 105-125.	2.9	149
13	Ammonia binding to the oxygen-evolving complex of photosystem II identifies the solvent-exchangeable oxygen bridge (Î¼-oxo) of the manganese tetramer. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15561-15566.	7.1	148
14	Current Understanding of the Mechanism of Water Oxidation in Photosystem II and Its Relation to XFEL Data. Annual Review of Biochemistry, 2020, 89, 795-820.	11.1	123
15	Oxygen-deficient photostable Cu₂O for enhanced visible light photocatalytic activity. Nanoscale, 2018, 10, 6039-6050.	5.6	115
16	Recent developments in biological water oxidation. Current Opinion in Chemical Biology, 2016, 31, 113-119.	6.1	97
17	A Tyrosylâˆ’Dimanganese Coupled Spin System is the Native Metalloradical Cofactor of the R2F Subunit of the Ribonucleotide Reductase of Corynebacterium ammoniagenes. Journal of the American Chemical Society, 2010, 132, 11197-11213.	13.7	93
18	Spin State as a Marker for the Structural Evolution of Natureâ€™s Water-Splitting Catalyst. Inorganic Chemistry, 2016, 55, 488-501.	4.0	87

#	Article	IF	Citations
19	The electronic structures of the S2 states of the oxygen-evolving complexes of photosystem II in plants and cyanobacteria in the presence and absence of methanol. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 829-840.	1.0	81
20	Structure, ligands and substrate coordination of the oxygen-evolving complex of photosystem II in the S2 state: a combined EPR and DFT study. Physical Chemistry Chemical Physics, 2014, 16, 11877.	2.8	77
21	What Are the Oxidation States of Manganese Required To Catalyze Photosynthetic Water Oxidation?. Biophysical Journal, 2012, 103, 313-322.	0.5	72
22	The FT-IR spectra of glycine and glycylglycine zwitterions isolated in alkali halide matrices. Chemical Physics, 2005, 313, 39-49.	1.9	70
23	The first tyrosyl radical intermediate formed in the S2â€“S3 transition of photosystem II. Physical Chemistry Chemical Physics, 2014, 16, 11901.	2.8	68
24	The First State in the Catalytic Cycle of the Water-Oxidizing Enzyme: Identification of a Water-Derived Î¼-Hydroxo Bridge. Journal of the American Chemical Society, 2017, 139, 14412-14424.	13.7	63
25	Artificial photosynthesis: understanding water splitting in nature. Interface Focus, 2015, 5, 20150009.	3.0	60
26	W-band ELDOR-detected NMR (EDNMR) spectroscopy as a versatile technique for the characterisation of transition metalâ€“ligand interactions. Molecular Physics, 2013, 111, 2788-2808.	1.7	59
27	The Basic Properties of the Electronic Structure of the Oxygen-evolving Complex of Photosystem II Are Not Perturbed by Ca2+ Removal. Journal of Biological Chemistry, 2012, 287, 24721-24733.	3.4	56
28	Electronic Structure of a Weakly Antiferromagnetically Coupled Mn^{II}Mn^{III}Model Relevant to Manganese Proteins: A Combined EPR,⁵⁵Mn-ENDOR, and DFT Study. Inorganic Chemistry, 2011, 50, 8238-8251.	4.0	55
29	Five-coordinate Mn ^{IV} intermediate in the activation of natureâ€™s water splitting cofactor. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16841-16846.	7.1	54
30	Metal-free ribonucleotide reduction powered by a DOPA radical in Mycoplasma pathogens. Nature, 2018, 563, 416-420.	27.8	50
31	Direct observation of structurally encoded metal discrimination and ether bond formation in a heterodinuclear metalloprotein. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17189-17194.	7.1	49
32	Photo-catalytic oxidation of a di-nuclear manganese centre in an engineered bacterioferritin â€˜reaction centreâ€™. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 1112-1121.	1.0	42
33	What Can We Learn from a Biomimetic Model of Natureâ€™s Oxygen-Evolving Complex?. Inorganic Chemistry, 2017, 56, 3875-3888.	4.0	40
34	Disubstituted Aminoanthraquinone-Based Photoinitiators for Free Radical Polymerization and Fast 3D Printing under Visible Light. Macromolecules, 2018, 51, 10104-10112.	4.8	38
35	Electronic Structural Flexibility of Heterobimetallic Mn/Fe Cofactors: R2lox and R2c Proteins. Journal of the American Chemical Society, 2014, 136, 13399-13409.	13.7	37
36	ELDOR-detected NMR: A general and robust method for electron-nuclear hyperfine spectroscopy?. Journal of Magnetic Resonance, 2017, 280, 63-78.	2.1	35

#	Article	IF	Citations
37	The Semiquinone-Iron Complex of Photosystem II: Structural Insights from ESR and Theoretical Simulation; Evidence that the Native Ligand to the Non-Heme Iron Is Carbonate. Biophysical Journal, 2009, 97, 2024-2033.	0.5	34
38	A First-Principles Approach to the Calculation of the on-Site Zero-Field Splitting in Polynuclear Transition Metal Complexes. Inorganic Chemistry, 2014, 53, 11785-11793.	4.0	32
39	Effects of formate binding on the quinoneâ€“iron electron acceptor complex of photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 216-226.	1.0	30
40	Intramolecular light induced activation of a Salenâ€“MnIII complex by a ruthenium photosensitizer. Chemical Communications, 2010, 46, 7605.	4.1	29
41	Spectral characteristics of PS II reaction centres: as isolated preparations and when integral to PS II core complexes. Photosynthesis Research, 2008, 98, 207-217.	2.9	27
42	Identification of the Q_{<i>Y</i>} Excitation of the Primary Electron Acceptor of Photosystem II: CD Determination of Its Coupling Environment. Journal of Physical Chemistry B, 2009, 113, 12364-12374.	2.6	27
43	Semiquinoneâ€“Iron Complex of Photosystem II: EPR Signals Assigned to the Low-Field Edge of the Ground State Doublet of Q_A^{â€¢â€“}Fe²⁺ and Q_B^{â€¢â€“}Fe²⁺. Biochemistry, 2011, 50, 6012-6021.	2.5	27
44	Characterization of Oxygen Bridged Manganese Model Complexes Using Multifrequency ¹⁷O-Hyperfine EPR Spectroscopies and Density Functional Theory. Journal of Physical Chemistry B, 2015, 119, 13904-13921.	2.6	27
45	In Situ EPR Characterization of a Cobalt Oxide Water Oxidation Catalyst at Neutral pH. Catalysts, 2019, 9, 926.	3.5	27
46	Redoxâ€Addressable Singleâ€Molecule Junctions Incorporating a Persistent Organic Radical**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
47	EPR Spectroscopy and the Electronic Structure of the Oxygen-Evolving Complex of Photosystem II. Applied Magnetic Resonance, 2013, 44, 691-720.	1.2	24
48	Divergent assembly mechanisms of the manganese/iron cofactors in R2lox and R2c proteins. Journal of Inorganic Biochemistry, 2016, 162, 164-177.	3.5	24
49	Free Radical Generation from High-Frequency Electromechanical Dissociation of Pure Water. Journal of Physical Chemistry Letters, 2020, 11, 4655-4661.	4.6	23
50	Nitrite Dismutase Reaction Mechanism: Kinetic and Spectroscopic Investigation of the Interaction between Nitrophorin and Nitrite. Journal of the American Chemical Society, 2015, 137, 4141-4150.	13.7	22
51	D1 protein variants in Photosystem II from Thermosynechococcus elongatus studied by low temperature optical spectroscopy. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 11-19.	1.0	21
52	Homologous expression of the <i>nrdF</i> gene of <i>Corynebacteriumâ€ƒammoniagenes</i> strainâ€ƒATCCâ€ƒ6872 generates a manganeseâ€metallocofactor (R2F) and a stable tyrosyl radical (Y^{â€¢}) involved in ribonucleotide reduction. FEBS Journal, 2010, 277, 4849-4862.	4.7	21
53	Biomolecular EPR Meets NMR at High Magnetic Fields. Magnetochemistry, 2018, 4, 50.	2.4	21
54	The primary donor of far-red photosystem II: ChlD1 or PD2?. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148248.	1.0	19

#	Article	IF	Citations
55	A Chiral Lanthanide Tag for Stable and Rigid Attachment to Single Cysteine Residues in Proteins for NMR, EPR and Timeâ€Resolved Luminescence Studies. Chemistry - A European Journal, 2021, 27, 13009-13023.	3.3	19
56	The D1-173 amino acid is a structural determinant of the critical interaction between D1-Tyr161 (TyrZ) and D1-His190 in Photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1922-1931.	1.0	16
57	Pulse Double-Resonance EPR Techniques for the Study of Metallobiomolecules. Methods in Enzymology, 2015, 563, 211-249.	1.0	16
58	Solvent water interactions within the active site of the membrane type I matrix metalloproteinase. Physical Chemistry Chemical Physics, 2017, 19, 30316-30331.	2.8	16
59	Redox-dependent Ligand Switching in a Sensory Heme-binding GAF Domain of the Cyanobacterium Nostoc sp. PCC7120. Journal of Biological Chemistry, 2015, 290, 19067-19080.	3.4	14
60	Crystalline Germanium(I) and Tin(I) Centered Radical Anions. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
61	The S1 split signal of photosystem II; a tyrosineâ€“manganese coupled interaction. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 882-889.	1.0	12
62	Structured near-infrared Magnetic Circular Dichroism spectra of the Mn4CaO5 cluster of PSII in T. vulcanus are dominated by Mn(IV) d-d â€˜spin-flipâ€™ transitions. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 88-98.	1.0	12
63	Defect engineering for creating and enhancing bulk photovoltaic effect in centrosymmetric materials. Journal of Materials Chemistry A, 2021, 9, 13182-13191.	10.3	12
64	Substituent Effects on Photoinitiation Ability of Monoaminoanthraquinoneâ€Based Photoinitiating Systems for Free Radical Photopolymerization under LEDs. Macromolecular Rapid Communications, 2020, 41, e2000166.	3.9	11
65	On the assignment of PSHB in D1/D2/ cytb559 reaction centers. Physics Procedia, 2010, 3, 1601-1605.	1.2	9
66	Hole-Pinned Defect Clusters for a Large Dielectric Constant up to GHz in Zinc and Niobium Codoped Rutile SnO₂. ACS Applied Materials & Interfaces, 2021, 13, 54124-54132.	8.0	9
67	Chemical flexibility of heterobimetallic Mn/Fe cofactors: R2lox and R2c proteins. Journal of Biological Chemistry, 2019, 294, 18372-18386.	3.4	8
68	Microwave Dielectric Materials with Defect-Dipole Clusters Induced Colossal Permittivity and Ultra-low Loss. ACS Applied Electronic Materials, 2021, 3, 5015-5022.	4.3	8
69	The syntheses, structures and spectroelectrochemical properties of 6-oxo-verdazyl derivatives bearing surface anchoring groups. Journal of Materials Chemistry C, 2022, 10, 1896-1915.	5.5	7
70	New Perspectives on Photosystem II Reaction Centres. Australian Journal of Chemistry, 2020, 73, 669.	0.9	6
71	Enhanced Synthesis of oxo-Verdazyl Radicals Bearing Sterically-and Electronically-Diverse C3-Substitents. Organic and Biomolecular Chemistry, 2021, 19, 10120-10138.	2.8	6
72	Crystalline Germanium(I) and Tin(I) Centered Radical Anions. Angewandte Chemie, 2022, 134, .	2.0	4

#	Article	IF	Citations
73	Highly Efficient Visible Light Catalysts Driven by Ti³⁺â€V_Oâ€2Ti⁴⁺â€N^{3â^'} Defect Clusters. ChemNanoMat, 2019, 5, 169-174.	2.8	3
74	Molecular Concepts of Water Splitting: Nature's Approach. Green, 2013, 3, .	0.4	2
75	Dielectric Coupler for General Purpose Q-Band EPR Cavity. Applied Magnetic Resonance, 0, , 1.	1.2	1
76	Defect structure and property consequence when small Li+ ions meet BaTiO3. Physical Review Materials, 2020, 4, .	2.4	1
77	Redoxâ€Addressable Singleâ€Molecule Junctions Incorporating a Persistent Organic Radical**. Angewandte Chemie, 0, , .	2.0	0