Holger Dau

List of Publications by Year
in descending order

202 papers	19,117 citations	17776 65 h-index	14012 133 g-index
210 all docs	210 docs citations	210 times ranked	16782 citing authors

#	Article	IF	Citations
1	Copper Carbonate Hydroxide as Precursor of Interfacial CO in CO₂ Electroreduction. ChemSusChem, 2022, 15, .	3.6	17
2	From manganese oxidation to water oxidation: assembly and evolution of the water-splitting complex in photosystem II. Photosynthesis Research, 2022, 152, 107-133.	1.6	22
3	Tryptophan regulates<i>Drosophila</i>zinc stores. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117807119.	3.3	19
4	Selected applications of operando Raman spectroscopy in electrocatalysis research. Current Opinion in Electrochemistry, 2022, 35, 101042.	2.5	7
5	Nanostructured Intermetallic Nickel Silicide (Pre)Catalyst for Anodic Oxygen Evolution Reaction and Selective Dehydrogenation of Primary Amines. Advanced Energy Materials, 2022, 12, .	10.2	42
6	A Pseudotetrahedral Terminal Oxoiron(IV) Complex: Mechanistic Promiscuity in Câˆ'H Bond Oxidation Reactions. Angewandte Chemie - International Edition, 2021, 60, 6752-6756.	7.2	16
7	A bioinspired oxoiron(<scp>iv</scp>) motif supported on a N₂S₂ macrocyclic ligand. Chemical Communications, 2021, 57, 2947-2950.	2.2	11
8	Formation of cobaltâ€"oxygen intermediates by dioxygen activation at a mononuclear nonheme cobalt(<scp>ii</scp>) center. Dalton Transactions, 2021, 50, 11889-11898.	1.6	6
9	Combination of Highly Efficient Electrocatalytic Water Oxidation with Selective Oxygenation of Organic Substrates using Manganese Borophosphates. Advanced Materials, 2021, 33, e2004098.	11.1	52
10	Morphology and mechanism of highly selective Cu(II) oxide nanosheet catalysts for carbon dioxide electroreduction. Nature Communications, 2021, 12, 794.	5.8	168
11	A Pseudotetrahedral Terminal Oxoiron(IV) Complex: Mechanistic Promiscuity in Câˆ'H Bond Oxidation Reactions. Angewandte Chemie, 2021, 133, 6826-6830.	1.6	3
12	Evolving Highly Active Oxidic Iron(III) Phase from Corrosion of Intermetallic Iron Silicide to Master Efficient Electrocatalytic Water Oxidation and Selective Oxygenation of 5â€Hydroxymethylfurfural. Advanced Materials, 2021, 33, e2008823.	11.1	91
13	Three overlooked photosynthesis papers of Otto Warburg (1883â€"1970), published in the 1940s in German and in Russian, on light-driven water oxidation coupled to benzoquinone reduction. Photosynthesis Research, 2021, 149, 259-264.	1.6	1
14	O2 evolution electrocatalysis:Electronic, atomic, and nanoscale dynamics matter. Joule, 2021, 5, 1634-1636.	11.7	3
15	Operando tracking of oxidation-state changes by coupling electrochemistry with time-resolved X-ray absorption spectroscopy demonstrated for water oxidation by a cobalt-based catalyst film. Analytical and Bioanalytical Chemistry, 2021, 413, 5395-5408.	1.9	16
16	Spektroskopische Charakterisierung eines reaktiven [Cu 2 (Î¼â€OH) 2] 2+ Intermediates in Cu/TEMPOâ€katalysierten aeroben Alkoholoxidationen. Angewandte Chemie, 2021, 133, 23201.	1.6	0
17	Spectroscopic Characterization of a Reactive [Cu₂(Î¼â€OH)₂]²⁺ Intermediate in Cu/TEMPO Catalyzed Aerobic Alcohol Oxidation Reaction. Angewandte Chemie - International Edition, 2021, 60, 23018-23024.	7.2	16
18	The influence of secondary interactions on the [Ni(O2)]+ mediated aldehyde oxidation reactions. Journal of Inorganic Biochemistry, 2021, 227, 111668.	1.5	2

#	Article	IF	Citations
19	Bimetallic Mn, Fe, Co, and Ni Sites in a Four-Helix Bundle Protein: Metal Binding, Structure, and Peroxide Activation. Inorganic Chemistry, 2021, 60, 17498-17508.	1.9	2
20	Detecting structural transformation of cobalt phosphonate to active bifunctional catalysts for electrochemical water-splitting. Journal of Materials Chemistry A, 2020, 8, 2637-2643.	5.2	80
21	Water-Oxidation Electrocatalysis by Manganese Oxides: Syntheses, Electrode Preparations, Electrolytes and Two Fundamental Questions. Zeitschrift Fur Physikalische Chemie, 2020, 234, 925-978.	1.4	41
22	Anion Binding and Oxidative Modification at the Molybdenum Cofactor of Formate Dehydrogenase from <i>Rhodobacter capsulatus</i> Studied by X-ray Absorption Spectroscopy. Inorganic Chemistry, 2020, 59, 214-225.	1.9	20
23	Revisiting Metalâ€“Organic Frameworks for Oxygen Evolution: A Case Study. Inorganic Chemistry, 2020, 59, 15335-15342.	1.9	29
24	Light-driven formation of manganese oxide by todayâ€™s photosystem II supports evolutionarily ancient manganese-oxidizing photosynthesis. Nature Communications, 2020, 11, 6110.	5.8	34
25	Understanding the formation of bulk- and surface-active layered (oxy)hydroxides for water oxidation starting from a cobalt selenite precursor. Energy and Environmental Science, 2020, 13, 3607-3619.	15.6	77
26	Activation energies for two steps in the S2â€ˆâ†’ S3 transition of photosynthetic water oxidation from time-resolved single-frequency infrared spectroscopy. Journal of Chemical Physics, 2020, 153, 215101.	1.2	20
27	A soft molecular 2Feâ€“2As precursor approach to the synthesis of nanostructured FeAs for efficient electrocatalytic water oxidation. Chemical Science, 2020, 11, 11834-11842.	3.7	30
28	Operando Raman spectroscopy tracks oxidation-state changes in an amorphous Co oxide material for electrocatalysis of the oxygen evolution reaction. Journal of Chemical Physics, 2020, 152, 194202.	1.2	55
29	Stoichiometric Formation of an Oxoiron(IV) Complex by a Soluble Methane Monooxygenase Type Activation of O₂ at an Iron(II)-Cyclam Center. Journal of the American Chemical Society, 2020, 142, 5924-5928.	6.6	27
30	A synthetic manganeseâ€“calcium cluster similar to the catalyst of Photosystem II: challenges for biomimetic water oxidation. Dalton Transactions, 2020, 49, 5597-5605.	1.6	13
31	Exploring the Limits of Self-Repair in Cobalt Oxide Films for Electrocatalytic Water Oxidation. ACS Catalysis, 2020, 10, 7990-7999.	5.5	21
32	Tuning cobalt eg occupation of Co-NCNT by manipulation of crystallinity facilitates more efficient oxygen evolution and reduction. Journal of Catalysis, 2020, 383, 221-229.	3.1	11
33	pHâ€Dependent Protonation of Surface Carboxylate Groups in PsbO Enables Local Buffering and Triggers Structural Changes. ChemBioChem, 2020, 21, 1597-1604.	1.3	16
34	Catalytic dioxygen reduction mediated by a tetranuclear cobalt complex supported on a stannoxane core. Dalton Transactions, 2020, 49, 6065-6073.	1.6	1
35	Nickelâ€“Vanadium Layered Double Hydroxide under Water-Oxidation Reaction: New Findings and Challenges. ACS Sustainable Chemistry and Engineering, 2019, 7, 17252-17262.	3.2	35
36	Formation of unexpectedly active Niâ€“Fe oxygen evolution electrocatalysts by physically mixing Ni and Fe oxyhydroxides. Chemical Communications, 2019, 55, 818-821.	2.2	57

#	ARTICLE	IF	CITATIONS
37	Electromodified NiFe Alloys as Electrocatalysts for Water Oxidation: Mechanistic Implications of Timeâ€Resolved UV/Vis Tracking of Oxidation State Changes. ChemSusChem, 2019, 12, 1966-1976.	3.6	33
38	Origin of the heat-induced improvement of catalytic activity and stability of MnO_x electrocatalysts for water oxidation. Journal of Materials Chemistry A, 2019, 7, 17022-17036.	5.2	25
39	Self-supported Ni(OH)2/MnO2 on CFP as a flexible anode towards electrocatalytic urea conversion: The role of composition on activity, redox states and reaction dynamics. Electrochimica Acta, 2019, 318, 32-41.	2.6	33
40	Structural and functional role of anions in electrochemical water oxidation probed by arsenate incorporation into cobalt-oxide materials. Physical Chemistry Chemical Physics, 2019, 21, 12485-12493.	1.3	18
41	Energetics and Kinetics of S-State Transitions Monitored by Delayed Chlorophyll Fluorescence. Frontiers in Plant Science, 2019, 10, 386.	1.7	14
42	Ammonia as a substrate-water analogue in photosynthetic water oxidation: Influence on activation barrier of the O2-formation step. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 533-540.	0.5	5
43	Electrodeposited AgCu Foam Catalysts for Enhanced Reduction of CO₂ to CO. ACS Applied Materials & Interfaces, 2019, 11, 14734-14744.	4.0	71
44	Identification of YdhV as the First Molybdoenzyme Binding a Bis-Mo-MPT Cofactor in <i>Escherichia coli</i>. Biochemistry, 2019, 58, 2228-2242.	1.2	7
45	Uncovering The Role of Oxygen in Ni-Fe(OxHy) Electrocatalysts using In situ Soft X-ray Absorption Spectroscopy during the Oxygen Evolution Reaction. Scientific Reports, 2019, 9, 1532.	1.6	112
46	Modelling the (Essential) Role of Proton Transport by Electrolyte Bases for Electrochemical Water Oxidation at Near-Neutral pH. Inorganics, 2019, 7, 20.	1.2	16
47	Carbon fibre paper coated by a layered manganese oxide: a nano-structured electrocatalyst for water-oxidation with high activity over a very wide pH range. Journal of Materials Chemistry A, 2019, 7, 25333-25346.	5.2	22
48	New aspects of operando Raman spectroscopy applied to electrochemical CO2 reduction on Cu foams. Journal of Chemical Physics, 2019, 150, 041718.	1.2	149
49	H/D Isotope Effects Reveal Factors Controlling Catalytic Activity in Co-Based Oxides for Water Oxidation. Journal of the American Chemical Society, 2019, 141, 2938-2948.	6.6	72
50	Helical cobalt borophosphates to master durable overall water-splitting. Energy and Environmental Science, 2019, 12, 988-999.	15.6	179
51	Local Cycle of Photosynthesis and Quasi-Aerobic Respiration Facilitated by Manganese Oxides â€" A Hypothesis on the Evolution of Phototrophy. , 2019, , 367-395.		1
52	A structurally versatile nickel phosphite acting as a robust bifunctional electrocatalyst for overall water splitting. Energy and Environmental Science, 2018, 11, 1287-1298.	15.6	205
53	Nickel-iron catalysts for electrochemical water oxidation â€" redox synergism investigated by <i>in situ</i> X-ray spectroscopy with millisecond time resolution. Sustainable Energy and Fuels, 2018, 2, 1986-1994.	2.5	64
54	A mononuclear cobalt complex for water oxidation: new controversies and puzzles. Dalton Transactions, 2018, 47, 16668-16673.	1.6	15

#	ARTICLE	IF	CITATIONS
55	Unified structural motifs of the catalytically active state of Co(oxyhydr)oxides during the electrochemical oxygen evolution reaction. Nature Catalysis, 2018, 1, 711-719.	16.1	415
56	Reactivity Determinants in Electrodeposited Cu Foams for Electrochemical CO₂ Reduction. ChemSusChem, 2018, 11, 3449-3459.	3.6	80
57	Direct Electrolytic Splitting of Seawater: Activity, Selectivity, Degradation, and Recovery Studied from the Molecular Catalyst Structure to the Electrolyzer Cell Level. Advanced Energy Materials, 2018, 8, 1800338.	10.2	185
58	Geometric distortions in nickel (oxy)hydroxide electrocatalysts by redox inactive iron ions. Energy and Environmental Science, 2018, 11, 2476-2485.	15.6	83
59	KÎ± X-ray Emission Spectroscopy on the Photosynthetic Oxygen-Evolving Complex Supports Manganese Oxidation and Water Binding in the S₃ State. Inorganic Chemistry, 2018, 57, 10424-10430.	1.9	33
60	Water oxidation by a manganeseâ€"potassium cluster: Mn oxide as a kinetically dominant â€œtrueâ€•catalyst for water oxidation. Catalysis Science and Technology, 2018, 8, 4390-4398.	2.1	16
61	Facile Formation of Nanostructured Manganese Oxide Films as Highâ€Performance Catalysts for the Oxygen Evolution Reaction. ChemSusChem, 2018, 11, 2554-2561.	3.6	19
62	Tracking Catalyst Redox States and Reaction Dynamics in Niâ€"Fe Oxyhydroxide Oxygen Evolution Reaction Electrocatalysts: The Role of Catalyst Support and Electrolyte pH. Journal of the American Chemical Society, 2017, 139, 2070-2082.	6.6	518
63	Evaporated manganese films as a starting point for the preparation of thin-layer MnO_x water-oxidation anodes. Sustainable Energy and Fuels, 2017, 1, 1162-1170.	2.5	22
64	Photo-assisted water oxidation by high-nuclearity cobalt-oxo cores: tracing the catalyst fate during oxygen evolution turnover. Green Chemistry, 2017, 19, 2416-2426.	4.6	40
65	Temperature Dependence of the Catalytic Two- versus Four-Electron Reduction of Dioxygen by a Hexanuclear Cobalt Complex. Journal of the American Chemical Society, 2017, 139, 15033-15042.	6.6	42
66	Spectroscopic identification of active sites for the oxygen evolution reaction on iron-cobalt oxides. Nature Communications, 2017, 8, 2022.	5.8	147
67	Artificial Photosynthesis: Beyond Mimicking Nature. ChemSusChem, 2017, 10, 4228-4235.	3.6	59
68	Inhibitory and Non-Inhibitory NH₃ Binding at the Water-Oxidizing Manganese Complex of Photosystem II Suggests Possible Sites and a Rearrangement Mode of Substrate Water Molecules. Biochemistry, 2017, 56, 6240-6256.	1.2	12
69	Protein crystallization and initial neutron diffraction studies of the photosystem II subunit PsbO. Acta Crystallographica Section F, Structural Biology Communications, 2017, 73, 525-531.	0.4	6
70	Ligand binding at the A-cluster in full-length or truncated acetyl-CoA synthase studied by X-ray absorption spectroscopy. PLoS ONE, 2017, 12, e0171039.	1.1	3
71	Structural insights into the light-driven auto-assembly process of the water-oxidizing Mn4CaO5-cluster in photosystem II. ELife, 2017, 6, .	2.8	62
72	Axial Ligation and Redox Changes at the Cobalt Ion in Cobalamin Bound to Corrinoid Iron-Sulfur Protein (CoFeSP) or in Solution Characterized by XAS and DFT. PLoS ONE, 2016, 11, e0158681.	1.1	20

#	Article	IF	Citations
73	Electrosynthesis of Biomimetic Manganeseâ€“Calcium Oxides for Water Oxidation Catalysisâ€"Atomic Structure and Functionality. ChemSusChem, 2016, 9, 379-387.	3.6	33
74	Sequential and Coupled Proton and Electron Transfer Events in the S₂ â†’ S₃ Transition of Photosynthetic Water Oxidation Revealed by Time-Resolved X-ray Absorption Spectroscopy. Biochemistry, 2016, 55, 6996-7004.	1.2	54
75	Oxygen Evolution Reaction Dynamics, Faradaic Charge Efficiency, and the Active Metal Redox States of Niâ€“Fe Oxide Water Splitting Electrocatalysts. Journal of the American Chemical Society, 2016, 138, 5603-5614.	6.6	888
76	The Molybdenum Active Site of Formate Dehydrogenase Is Capable of Catalyzing Câ€“H Bond Cleavage and Oxygen Atom Transfer Reactions. Biochemistry, 2016, 55, 2381-2389.	1.2	51
77	Merging Structural Information from X-ray Crystallography, Quantum Chemistry, and EXAFS Spectra: The Oxygen-Evolving Complex in PSII. Journal of Physical Chemistry B, 2016, 120, 10899-10922.	1.2	16
78	Crystallographic and Computational Analysis of the Barrel Part of the PsbO Protein of Photosystem II: Carboxylateâ€“Water Clusters as Putative Proton Transfer Relays and Structural Switches. Biochemistry, 2016, 55, 4626-4635.	1.2	18
79	Room-Temperature Energy-Sampling KÎ² X-ray Emission Spectroscopy of the Mn₄Ca Complex of Photosynthesis Reveals Three Manganese-Centered Oxidation Steps and Suggests a Coordination Change Prior to O₂ Formation. Biochemistry, 2016, 55, 4197-4211.	1.2	66
80	Water oxidation catalysis â€“ role of redox and structural dynamics in biological photosynthesis and inorganic manganese oxides. Energy and Environmental Science, 2016, 9, 2433-2443.	15.6	99
81	Uncovering the prominent role of metal ions in octahedral versus tetrahedral sites of cobaltâ€“zinc oxide catalysts for efficient oxidation of water. Journal of Materials Chemistry A, 2016, 4, 10014-10022.	5.2	171
82	Hydrophobic Nanoreactor Softâ€Templating: A Supramolecular Approach to Yolk@Shell Materials. Advanced Functional Materials, 2015, 25, 6228-6240.	7.8	40
83	Structure and Mechanism Leading to Formation of the Cysteine Sulfinate Product Complex of a Biomimetic Cysteine Dioxygenase Model. Chemistry - A European Journal, 2015, 21, 7470-7479.	1.7	20
84	Water oxidation by amorphous cobalt-based oxides: in situ tracking of redox transitions and mode of catalysis. Energy and Environmental Science, 2015, 8, 661-674.	15.6	279
85	Heterogeneous Water Oxidation: Surface Activity versus Amorphization Activation in Cobalt Phosphate Catalysts. Angewandte Chemie - International Edition, 2015, 54, 2472-2476.	7.2	152
86	High-Performance Oxygen Redox Catalysis with Multifunctional Cobalt Oxide Nanochains: Morphology-Dependent Activity. ACS Catalysis, 2015, 5, 2017-2027.	5.5	249
87	Heterogeneous Water Oxidation: Surface Activity versus Amorphization Activation in Cobalt Phosphate Catalysts. Angewandte Chemie, 2015, 127, 2502-2506.	1.6	46
88	Atomistic Texture of Amorphous Manganese Oxides for Electrochemical Water Splitting Revealed by Ab Initio Calculations Combined with X-ray Spectroscopy. Journal of the American Chemical Society, 2015, 137, 10254-10267.	6.6	36
89	Sulfido and Cysteine Ligation Changes at the Molybdenum Cofactor during Substrate Conversion by Formate Dehydrogenase (FDH) from <i>Rhodobacter capsulatus</i>. Inorganic Chemistry, 2015, 54, 3260-3271.	1.9	57
90	A synthetic Mn ₄ Ca-cluster mimicking the oxygen-evolving center of photosynthesis. Science, 2015, 348, 690-693.	6.0	428

#	ARTICLE	IF	CITATIONS
91	Reversible amorphization and the catalytically active state of crystalline Co3O4 during oxygen evolution. Nature Communications, 2015, 6, 8625.	5.8	694
92	Seven Steps of Alternating Electron and Proton Transfer in Photosystem II Water Oxidation Traced by Time-Resolved Photothermal Beam Deflection at Improved Sensitivity. Journal of Physical Chemistry B, 2015, 119, 2677-2689.	1.2	85
93	Biogenic Manganese-Calcium Oxides on the Cell Walls of the AlgaeChara Corallina: Elemental Composition, Atomic Structure, and Water-Oxidation Catalysis. European Journal of Inorganic Chemistry, 2014, 2014, 780-790.	1.0	28
94	Screenâ€Printed Calciumâ€“Birnessite Electrodes for Water Oxidation at Neutral pH and an â€œElectrochemical Harriman Seriesâ€ ChemSusChem, 2014, 7, 3442-3451.	3.6	61
95	Shining light on integrity of a tetracobalt-polyoxometalate water oxidation catalyst by X-ray spectroscopy before and after catalysis. Chemical Communications, 2014, 50, 100-102.	2.2	62
96	Water oxidation by manganese oxides formed from tetranuclear precursor complexes: the influence of phosphate on structure and activity. Physical Chemistry Chemical Physics, 2014, 16, 11965.	1.3	38
97	Cationic screening of charged surface groups (carboxylates) affects electron transfer steps in photosystem-II water oxidation and quinone reduction. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1625-1634.	0.5	16
98	Water Oxidation by Amorphous Cobaltâ€Based Oxides: Volume Activity and Proton Transfer to Electrolyte Bases. ChemSusChem, 2014, 7, 1301-1310.	3.6	183
99	Fragments of Layered Manganese Oxide Are the Real Water Oxidation Catalyst after Transformation of Molecular Precursor on Clay. Journal of the American Chemical Society, 2014, 136, 7245-7248.	6.6	127
100	Electrochemical water splitting by layered and 3D cross-linked manganese oxides: correlating structural motifs and catalytic activity. Energy and Environmental Science, 2013, 6, 2745.	15.6	248
101	Cyanamide route to calciumâ€“manganese oxide foams for water oxidation. Dalton Transactions, 2013, 42, 16920.	1.6	29
102	Artificial photosynthesis as a frontier technology for energy sustainability. Energy and Environmental Science, 2013, 6, 1074.	15.6	284
103	Active Mixedâ€Valent MnO_{<i>x</i>} Water Oxidation Catalysts through Partial Oxidation (Corrosion) of Nanostructured MnO Particles. Angewandte Chemie - International Edition, 2013, 52, 13206-13210.	7.2	267
104	Water Oxidation in Photosystem II: Energetics and Kinetics of Intermediates Formation in the S2â†'S3 and S3â†'S0 Transitions Monitored by Delayed Chlorophyll Fluorescence. Advanced Topics in Science and Technology in China, 2013, , 234-238.	0.0	2
105	The Structure of a Water-oxidizing Cobalt Oxide Film and Comparison to the Photosynthetic Manganese Complex. Advanced Topics in Science and Technology in China, 2013, , 257-261.	0.0	0
106	Role of Protons in Photosynthetic Water Oxidation: pH Influence on the Rate Constants of the S-state Transitions and Hypotheses on the S2â†'S3 Transition. Advanced Topics in Science and Technology in China, 2013, , 244-249.	0.0	0
107	The D1-D61N Mutation in <i>Synechocystis</i> sp. PCC 6803 Allows the Observation of pH-Sensitive Intermediates in the Formation and Release of O₂ from Photosystem II. Biochemistry, 2012, 51, 1079-1091.	1.2	75
108	A Janus cobalt-based catalytic material for electro-splitting of water. Nature Materials, 2012, 11, 802-807.	13.3	784

#	Article	IF	Citations
109	Alternating electron and proton transfer steps in photosynthetic water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16035-16040.	3.3	172
110	Electrosynthesis, functional, and structural characterization of a water-oxidizing manganese oxide. Energy and Environmental Science, 2012, 5, 7081.	15.6	407
111	Experimental and quantum chemical characterization of the water oxidation cycle catalysed by [RuII(damp)(bpy)(H2O)]2+. Chemical Science, 2012, 3, 2576.	3.7	96
112	Layered manganese oxides for water-oxidation: alkaline earth cations influence catalytic activity in a photosystem II-like fashion. Chemical Science, 2012, 3, 2330.	3.7	250
113	Water Oxidation by Electrodeposited Cobalt Oxidesâ€"Role of Anions and Redoxâ€Inert Cations in Structure and Function of the Amorphous Catalyst. ChemSusChem, 2012, 5, 542-549.	3.6	149
114	Recent developments in research on water oxidation by photosystem II. Current Opinion in Chemical Biology, 2012, 16, 3-10.	2.8	187
115	Structural models of the manganese complex of photosystem II and mechanistic implications. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 88-105.	0.5	197
116	Extended protein/water H-bond networks in photosynthetic water oxidation. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1177-1190.	0.5	78
117	Fast structural changes (200â€"900 ns) may prepare the photosynthetic manganese complex for oxidation by the adjacent tyrosine radical. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1196-1207.	0.5	27
118	Nickel-oxido structure of a water-oxidizing catalyst film. Chemical Communications, 2011, 47, 11912.	2.2	105
119	Thermodynamic Limitations of Photosynthetic Water Oxidation at High Proton Concentrations. Journal of Biological Chemistry, 2011, 286, 18222-18228.	1.6	50
120	[NiFe] and [FeS] Cofactors in the Membrane-Bound Hydrogenase of <i>Ralstonia eutropha</i> Investigated by X-ray Absorption Spectroscopy: Insights into O₂-Tolerant H₂ Cleavage. Biochemistry, 2011, 50, 5858-5869.	1.2	33
121	Electronic Structure of Oxidized Complexes Derived fromcis-[RuII(bpy)2(H2O)2]2+and Its Photoisomerization Mechanism. Inorganic Chemistry, 2011, 50, 11134-11142.	1.9	64
122	Synthetic manganeseâ€"calcium oxides mimic the water-oxidizing complex of photosynthesis functionally and structurally. Energy and Environmental Science, 2011, 4, 2400.	15.6	263
123	Protonation states in a cobalt-oxide catalyst for water oxidation: fine comparison of ab initio molecular dynamics and X-ray absorption spectroscopy results. Physical Chemistry Chemical Physics, 2011, 13, 15437.	1.3	36
124	An Oxocobalt(IV) Complex Stabilized by Lewis Acid Interactions with Scandium(III) Ions. Angewandte Chemie - International Edition, 2011, 50, 1711-1715.	7.2	136
125	Structural Basis of Cyanobacterial Photosystem II Inhibition by the Herbicide Terbutryn. Journal of Biological Chemistry, 2011, 286, 15964-15972.	1.6	73
126	Carboxylate Shifts Steer Interquinone Electron Transfer in Photosynthesis. Journal of Biological Chemistry, 2011, 286, 5368-5374.	1.6	32

#	Article	IF	Citations
127	The Mechanism of Water Oxidation: From Electrolysis via Homogeneous to Biological Catalysis. ChemCatChem, 2010, 2, 724-761.	1.8	1,493
128	Linear Dichroism in the XANES of Partially Oriented Samples: Theory and Application to the Photosynthetic Manganese Complex. ChemPhysChem, 2010, 11, 1236-1247.	1.0	4
129	Proteinâ€“Protein Complex Formation Affects the Niâ€“Fe and Feâ€“S Centers in the H₂â€Sensing Regulatory Hydrogenase from <i>Ralstonia eutropha</i> H16. ChemPhysChem, 2010, 11, 1297-1306.	1.0	11
130	Functional Characterization and Quantification of the Alternative PsbA Copies in Thermosynechococcus elongatus and Their Role in Photoprotection. Journal of Biological Chemistry, 2010, 285, 29851-29856.	1.6	44
131	Water Oxidation by Photosystem II: H₂Oâˆ'D₂O Exchange and the Influence of pH Support Formation of an Intermediate by Removal of a Proton before Dioxygen Creation. Biochemistry, 2010, 49, 10098-10106.	1.2	56
132	Towards a comprehensive X-ray approach for studying the photosynthetic manganese complexâ€“XANES, KÎ±/KÎ²/KÎ²-satellite emission lines, RIXS, and comparative computational approaches for selected model complexes. Journal of Physics: Conference Series, 2009, 190, 012142.	0.3	14
133	Energetics and kinetics of photosynthetic water oxidation studied by photothermal beam deflection (PBD) experiments. Photosynthesis Research, 2009, 102, 499-509.	1.6	13
134	Principles, Efficiency, and Blueprint Character of Solar-Energy Conversion in Photosynthetic Water Oxidation. Accounts of Chemical Research, 2009, 42, 1861-1870.	7.6	378
135	Cobaltâˆ'Oxo Core of a Water-Oxidizing Catalyst Film. Journal of the American Chemical Society, 2009, 131, 6936-6937.	6.6	262
136	Characterisation of a water-oxidizing Co-film by XAFS. Journal of Physics: Conference Series, 2009, 190, 012167.	0.3	19
137	The manganese complex of photosystem II in its reaction cycleâ€"Basic framework and possible realization at the atomic level. Coordination Chemistry Reviews, 2008, 252, 273-295.	9.5	365
138	The photosystem II-associated Cah3 in Chlamydomonas enhances the O2 evolution rate by proton removal. EMBO Journal, 2008, 27, 782-791.	3.5	86
139	Enthalpy Changes during Photosynthetic Water Oxidation Tracked by Time-Resolved Calorimetry Using a Photothermal Beam Deflection Technique. Biophysical Journal, 2008, 94, 1890-1903.	0.2	21
140	Photosynthetic water oxidation at elevated dioxygen partial pressure monitored by time-resolved X-ray absorption measurements. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17384-17389.	3.3	53
141	On the structure of the manganese complex of photosystem II: extended-range EXAFS data and specific atomic-resolution models for four S-states. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1237-1244.	1.8	169
142	The Photosynthetic Mn Complex in Its Reaction Cycle: An Attempt to Obtain Pure FTIR Difference Spectra for the Four Transitions Between Semi-Stable S-States and for QB Redox Transitions. , 2008, , 509-512.		1
143	Time-Resolved Delayed Chlorophyll Fluorescence to Study the Influence of Bicarbonate on a Green Algae Mutant Photosystem II. , 2008, , 35-38.		2
144	Eight Steps Preceding O-O Bond Formation in Oxygenic Photosynthesis â€" A Basic Reaction Cycle of the Photosystem II Manganese Complex. , 2008, , 393-396.		0

#	Article	IF	Citations
145	Spare quinones in the QB cavity of crystallized photosystem II from Thermosynechococcus elongatus. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 520-527.	0.5	61
146	Eight steps preceding Oâ€"O bond formation in oxygenic photosynthesisâ€"A basic reaction cycle of the Photosystem II manganese complex. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 472-483.	0.5	166
147	Photosynthetic dioxygen formation studied by time-resolved delayed fluorescence measurements â€" Method, rationale, and results on the activation energy of dioxygen formation. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 565-574.	0.5	45
148	Photosynthetic Dioxygen Formation Monitored by Time-Resolved X-Ray Spectroscopy. AIP Conference Proceedings, 2007, , .	0.3	0
149	Efficiency and role of loss processes in light-driven water oxidation by PSII. Physiologia Plantarum, 2007, 131, 50-63.	2.6	24
150	Time-resolved X-ray spectroscopy leads to an extension of the classical S-state cycle model of photosynthetic oxygen evolution. Photosynthesis Research, 2007, 92, 327-343.	1.6	58
151	Bridging-type changes facilitate successive oxidation steps at about 1V in two binuclear manganese complexesâ€"implications for photosynthetic water-oxidation. Journal of Inorganic Biochemistry, 2006, 100, 1234-1243.	1.5	53
152	Intermediates in Assembly by Photoactivation after Thermally Accelerated Disassembly of the Manganese Complex of Photosynthetic Water Oxidation. Biochemistry, 2006, 45, 14523-14532.	1.2	44
153	Bias from H2Cleavage to Production and Coordination Changes at the Niâˆ'Fe Active Site in the NAD+-Reducing Hydrogenase fromRalstonia eutrophaâ€. Biochemistry, 2006, 45, 11658-11665.	1.2	17
154	Bromide Does Not Bind to the Mn4Ca Complex in Its S1State in Cl--Depleted and Br--Reconstituted Oxygen-Evolving Photosystem II:Â Evidence from X-ray Absorption Spectroscopy at the Br K-Edgeâ€. Biochemistry, 2006, 45, 13101-13107.	1.2	60
155	Rapid Loss of Structural Motifs in the Manganese Complex of Oxygenic Photosynthesis by X-ray Irradiation at 10â€"300 K. Journal of Biological Chemistry, 2006, 281, 4580-4588.	1.6	178
156	The Manganese Complex of Oxygenic Photosynthesis Conversion of FiveCoordinated MnIII to SixCoordinated MnIV in the S2S3 Transition is Implied by XANES Simulations. Physica Scripta, 2005, , 844.	1.2	43
157	Simulation of XANES Spectra for ProteinBound Metal Centers Analysis of Linear Dichroism Data. Physica Scripta, 2005, , 859.	1.2	5
158	Considerations on the mechanism of photosynthetic water oxidation â€" dual role of oxo-bridges between Mn ions in (i) redox-potential maintenance and (ii) proton abstraction from substrate water. Photosynthesis Research, 2005, 84, 325-331.	1.6	33
159	Specific loss of the extrinsic 18 KDa protein from Photosystem II upon heating to 47ÂÂ°C causes inactivation of oxygen evolution likely due to Ca release from the Mn-complex. Photosynthesis Research, 2005, 84, 231-237.	1.6	37
160	A novel BioXAS technique with sub-millisecond time resolution to track oxidation state and structural changes at biological metal centers. Journal of Synchrotron Radiation, 2005, 12, 35-44.	1.0	24
161	Reduction of Unusual Iron-Sulfur Clusters in the H2-sensing Regulatory Ni-Fe Hydrogenase from Ralstonia eutropha H16. Journal of Biological Chemistry, 2005, 280, 19488-19495.	1.6	42
162	Photosynthetic O2 Formation Tracked by Time-Resolved X-ray Experiments. Science, 2005, 310, 1019-1021.	6.0	454

#	Article	IF	Citations
163	Photosynthetic Water Oxidation at High O2 Backpressure Monitored by Delayed Chlorophyll Fluorescence. Biochemistry, 2005, 44, 12775-12779.	1.2	43
164	Structural and Oxidation State Changes of the Photosystem II Manganese Complex in Four Transitions of the Water Oxidation Cycle (S0 â†' S1, S1 â†' S2, S2 â†' S3, and S3,4 â†' S0) Characterized by X-ray Absorption Spectroscopy at 20 K and Room Temperature. Biochemistry, 2005, 44, 1894-1908.	1.2	314
165	Energetics of primary and secondary electron transfer in Photosystem II membrane particles of spinach revisited on basis of recombination-fluorescence measurements. Biochimica Et Biophysica Acta - Bioenergetics, 2005, 1708, 209-218.	0.5	128
166	The Location of Calcium in the Manganese Complex of Oxygenic Photosynthesis Studied by XRay Absorption Spectroscopy at the Ca KEdge. Physica Scripta, 2005, , 847.	1.2	13
167	The structure of the manganese complex of Photosystem II in its dark-stable S1-stateâ€"EXAFS results in relation to recent crystallographic data. Physical Chemistry Chemical Physics, 2004, 6, 4781-4792.	1.3	103
168	X-ray absorption spectroscopy to analyze nuclear geometry and electronic structure of biological metal centers?potential and questions examined with special focus on the tetra-nuclear manganese complex of oxygenic photosynthesis. Analytical and Bioanalytical Chemistry, 2003, 376, 562-583.	1.9	306
169	X-ray absorption spectroscopy to watch catalysis by metalloenzymes: status and perspectives discussed for the water-splitting manganese complex of photosynthesis. Journal of Synchrotron Radiation, 2003, 10, 76-85.	1.0	18
170	Hydrogen-Induced Structural Changes at the Nickel Site of the Regulatory [NiFe] Hydrogenase from Ralstonia eutropha Detected by X-ray Absorption Spectroscopy. Biochemistry, 2003, 42, 11004-11015.	1.2	36
171	Stepwise Transition of the Tetra-Manganese Complex of Photosystem II to a Binuclear Mn2(Î¼-O)2 Complex in Response to a Temperature Jump: A Time-Resolved Structural Investigation Employing X-Ray Absorption Spectroscopy. Biophysical Journal, 2003, 84, 1370-1386.	0.2	56
172	Valinomycin sensitivity proves that light-induced thylakoid voltages result in millisecond phase of chlorophyll fluorescence transients. Biochimica Et Biophysica Acta - Bioenergetics, 2002, 1554, 94-100.	0.5	59
173	The first room-temperature X-ray absorption spectra of higher oxidation states of the tetra-manganese complex of photosystem II. FEBS Letters, 2002, 512, 116-120.	1.3	43
174	First steps towards time-resolved BioXAS atÂroom temperature: state transitions of theÂmanganese complex of oxygenic photosynthesis. Journal of Synchrotron Radiation, 2002, 9, 304-308.	1.0	8
175	The role of zinc in the methylation of the coenzymeâ€ƒM thiol group in methanol:coenzymeâ€ƒM methyltransferase fromMethanosarcina barkeri. FEBS Journal, 2002, 269, 2117-2123.	0.2	27
176	The tetra-manganese complex of photosystem II during its redox cycle â€" X-ray absorption results and mechanistic implications. Biochimica Et Biophysica Acta - Bioenergetics, 2001, 1503, 24-39.	0.5	196
177	Does the Structure of the Water-Oxidizing Photosystem IIâˆ'Manganese Complex at Room Temperature Differ from Its Low-Temperature Structure? A Comparative X-ray Absorption Studyâ€. Biochemistry, 2000, 39, 7033-7040.	1.2	43
178	Preparation protocols for high-activity Photosystem II membrane particles of green algae and higher plants, pH dependence of oxygen evolution and comparison of the S2-state multiline signal by X-band EPR spectroscopy. Journal of Photochemistry and Photobiology B: Biology, 2000, 55, 138-144.	1.7	94
179	Water and bromide in the active center of vanadate-dependent haloperoxidases. Journal of Inorganic Biochemistry, 2000, 80, 115-121.	1.5	46
180	Chlorophyll fluorescence transients of Photosystem II membrane particles as a tool for studying photosynthetic oxygen evolution. , 2000, 65, 41-52.		92

#	Article	IF	Citations
181	Title is missing!. Photosynthesis Research, 1999, 60, 217-227.	1.6	36
182	Bromine K-edge EXAFS studies of bromide binding to bromoperoxidase fromAscophyllum nodosum. FEBS Letters, 1999, 457, 237-240.	1.3	35
183	Structure and Orientation of the Oxygen-Evolving Manganese Complex of Green Algae and Higher Plants Investigated by X-ray Absorption Linear Dichroism Spectroscopy on Oriented Photosystem II Membrane Particlesâ€. Biochemistry, 1998, 37, 7340-7350.	1.2	67
184	X-ray Absorption Spectroscopy on Layered Photosystem II Membrane Particles Suggests Manganese-Centered Oxidation of the Oxygen-Evolving Complex for the S0-S1, S1-S2, and S2-S3Transitions of the Water Oxidation Cycleâ€. Biochemistry, 1998, 37, 17112-17119.	1.2	183
185	Theory of the Linear Dichroism in the Extended X-ray Absorption Fine Structure (EXAFS) of Partially Vectorially Ordered Systems. Journal of Physical Chemistry B, 1998, 102, 8196-8200.	1.2	31
186	The Photosystem II Manganese Complex in Its S3-State. , 1998, , 1327-1330.		1
187	Assembly of light harvesting complexes II (LHC-II) in the absence of lutein. Biochimica Et Biophysica Acta - Bioenergetics, 1997, 1320, 188-194.	0.5	21
188	X-Ray Absorption Linear Dichroism Spectroscopy (XALDS) on the Photosystem II Manganese Complex: Radiation Damage and S₁-State K-edge Spectra. European Physical Journal Special Topics, 1997, 7, C2-607-C2-610.	0.2	5
189	Exciton equilibration and Photosystem II exciton dynamics â€" a fluorescence study on Photosystem II membrane particles of spinach. Biochimica Et Biophysica Acta - Bioenergetics, 1996, 1273, 175-190.	0.5	70
190	Comparison of electron paramagnetic resonance lineshape, orientation and power saturation of the Tyr_D radical from spinach and the green alga <i>Scenedesmus obliquus</i>. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1996, 100, 1999-2002.	0.9	1
191	Structural Consequences of Ammonia Binding to the Manganese Center of the Photosynthetic Oxygen-Evolving Complex: An X-ray Absorption Spectroscopy Study of Isotropic and Oriented Photosystem II Particles. Biochemistry, 1995, 34, 5274-5287.	1.2	126
192	New trends in photobiology. Journal of Photochemistry and Photobiology B: Biology, 1994, 26, 3-27.	1.7	81
193	MOLECULAR MECHANISMS AND QUANTITATIVE MODELS OF VARIABLE PHOTOSYSTEM II FLUORESCENCE. Photochemistry and Photobiology, 1994, 60, 1-23.	1.3	258
194	Correlation between Structure and Magnetic Spin State of the Manganese Cluster in the Oxygen-Evolving Complex of Photosystem II in the S2 State: Determination by X-ray Absorption Spectroscopy. Biochemistry, 1994, 33, 4923-4932.	1.2	82
195	Electric field effect on the picosecond fluorescence of Photosystem II and its relation to the energetics and kinetics of primary charge separation. Biochimica Et Biophysica Acta - Bioenergetics, 1992, 1102, 91-106.	0.5	47
196	Effect of light-induced changes in thylakoid voltage on chlorophyll fluorescence of Aegopodium podagraria leaves. Biochimica Et Biophysica Acta - Bioenergetics, 1991, 1057, 337-345.	0.5	22
197	Electric field effect on chlorophyll fluorescence and its relation to Photosystem II charge separation reactions studied by a salt-jump technique. Biochimica Et Biophysica Acta - Bioenergetics, 1991, 1098, 49-60.	0.5	44
198	A study on the energy-dependent quenching of chlorophyll fluorescence by means of photoacoustic measurements. Photosynthesis Research, 1990, 25, 269-278.	1.6	38

#	Article	IF	Citations
199	Studies on the adaptation of intact leaves to changing light intensities by a kinetic analysis of chlorophyll fluorescence and oxygen evolution as measured by the photoacoustic signal. Photosynthesis Research, 1989, 20, 59-83.	1.6	38
200	A chemical evolutionâ€like method to synthesize a waterâ€oxidizing catalyst. ChemElectroChem, 0, , .	1.7	2
201	Redox Energetics and Kinetics of Water Oxidation in Neutral versus Alkaline Electrolyte: an In-Operando Time-Resolved X-Ray Absorption Study. , 0, , .		0
202	Modelling the coordination environment in Î±â€ketoglutarate dependent oxygenases â€“ a comparative study on the effect of Nâ€vs. Oâ€ligation. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 0, , .	0.6	0