Johannes Messinger

List of Publications by Year
in descending order

164 papers	12,066 citations	28274 55 h-index	27406 106 g-index
171 all docs	171 docs citations	171 times ranked	7104 citing authors

#	Article	IF	Citations
1	Where Water Is Oxidized to Dioxygen: Structure of the Photosynthetic Mn4Ca Cluster. Science, 2006, 314, 821-825.	12.6	782
2	X-ray damage to the Mn4Ca complex in single crystals of photosystem II: A case study for metalloprotein crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12047-12052.	7.1	585
3	Solar water-splitting into H2 and O2: design principles of photosystem II and hydrogenases. Energy and Environmental Science, 2008, 1, 15.	30.8	388
4	Structures of the intermediates of Kokâ€™s photosynthetic water oxidation clock. Nature, 2018, 563, 421-425.	27.8	386
5	Simultaneous Femtosecond X-ray Spectroscopy and Diffraction of Photosystem II at Room Temperature. Science, 2013, 340, 491-495.	12.6	378
6	Structure of photosystem II and substrate binding at room temperature. Nature, 2016, 540, 453-457.	27.8	323
7	Absence of Mn-Centered Oxidation in the S2â†’ S3Transition:Â Implications for the Mechanism of Photosynthetic Water Oxidation. Journal of the American Chemical Society, 2001, 123, 7804-7820.	13.7	295
8	Artificial photosynthesis as a frontier technology for energy sustainability. Energy and Environmental Science, 2013, 6, 1074.	30.8	284
9	Metal oxidation states in biological water splitting. Chemical Science, 2015, 6, 1676-1695.	7.4	275
10	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
11	Detection of one slowly exchanging substrate water molecule in the S3 state of photosystem II.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 3209-3213.	7.1	270
12	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
13	Reflections on substrate water and dioxygen formation. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 1020-1030.	1.0	234
14	Electronic Structure of the Mn₄O<i>_x</i>Ca Cluster in the S₀and S₂States of the Oxygen-Evolving Complex of Photosystem II Based on Pulse⁵⁵Mn-ENDOR and EPR Spectroscopy. Journal of the American Chemical Society, 2007, 129, 13421-13435.	13.7	230
15	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
16	Taking snapshots of photosynthetic water oxidation using femtosecond X-ray diffraction and spectroscopy. Nature Communications, 2014, 5, 4371.	12.8	206
17	Recent pulsed EPR studies of the Photosystem II oxygen-evolving complex: implications as to water oxidation mechanisms. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1655, 158-171.	1.0	204
18	Evaluation of different mechanistic proposals for water oxidation in photosynthesis on the basis of Mn4OxCa structures for the catalytic site and spectroscopic data. Physical Chemistry Chemical Physics, 2004, 6, 4764.	2.8	193

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19	The S0 State of the Oxygen-Evolving Complex in Photosystem II Is Paramagnetic:â€‰ Detection of an EPR Multiline Signal. Journal of the American Chemical Society, 1997, 119, 11349-11350.	13.7	192
20	High-Resolution Mn EXAFS of the Oxygen-Evolving Complex in Photosystem II:Â Structural Implications for the Mn4Ca Cluster. Journal of the American Chemical Society, 2005, 127, 14974-14975.	13.7	189
21	Detection of an EPR Multiline Signal for the S0* State in Photosystem II. Biochemistry, 1997, 36, 11055-11060.	2.5	183
22	The Mn Cluster in the S0 State of the Oxygen-Evolving Complex of Photosystem II Studied by EXAFS Spectroscopy:â€‰ Are There Three Di-Î¼-oxo-bridged Mn2 Moieties in the Tetranuclear Mn Complex?. Journal of the American Chemical Society, 2002, 124, 7459-7471.	13.7	175
23	55Mn Pulse ENDOR at 34 GHz of the S0and S2States of the Oxygen-Evolving Complex in Photosystem II. Journal of the American Chemical Society, 2005, 127, 2392-2393.	13.7	174
24	Nanoflow electrospinning serial femtosecond crystallography. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1584-1587.	2.5	167
25	Drop-on-demand sample delivery for studying biocatalysts in action at X-ray free-electron lasers. Nature Methods, 2017, 14, 443-449.	19.0	150
26	Untangling the sequence of events during the S ₂ â†’ S ₃ transition in photosystem II and implications for the water oxidation mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12624-12635.	7.1	149
27	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
28	Room temperature femtosecond X-ray diffraction of photosystem II microcrystals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9721-9726.	7.1	144
29	Accurate macromolecular structures using minimal measurements from X-ray free-electron lasers. Nature Methods, 2014, 11, 545-548.	19.0	140
30	X-ray Emission Spectroscopy To Study Ligand Valence Orbitals in Mn Coordination Complexes. Journal of the American Chemical Society, 2009, 131, 13161-13167.	13.7	135
31	Kinetic Determination of the Fast Exchanging Substrate Water Molecule in the S3 State of Photosystem II,. Biochemistry, 1998, 37, 16908-16914.	2.5	126
32	A New Quantum Chemical Approach to the Magnetic Properties of Oligonuclear Transitionâ€Metal Complexes: Application to a Model for the Tetranuclear Manganese Cluster of Photosystemâ€…II. Chemistry - A European Journal, 2009, 15, 5108-5123.	3.3	123
33	Structure of the oxygen-evolving complex of photosystem II: information on the S2 state through quantum chemical calculation of its magnetic properties. Physical Chemistry Chemical Physics, 2009, 11, 6788.	2.8	121
34	On-line mass spectrometry: membrane inlet sampling. Photosynthesis Research, 2009, 102, 511-522.	2.9	117
35	Energy-dispersive X-ray emission spectroscopy using an X-ray free-electron laser in a shot-by-shot mode. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19103-19107.	7.1	113
36	Formation of stoichiometrically 18O-labelled oxygen from the oxidation of 18O-enriched water mediated by a dinuclear manganese complexâ€"a mass spectrometry and EPR study. Energy and Environmental Science, 2008, 1, 668.	30.8	102

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37	Unusual low reactivity of the water oxidase in redox state S3 toward exogenous reductants. Analysis of the NH2OH- and NH2NH2-induced modifications of flash-induced oxygen evolution in isolated spinach thylakoids. Biochemistry, 1991, 30, 7852-7862.	2.5	101
38	Calcium Manganese Oxides as Oxygen Evolution Catalysts: O₂ Formation Pathways Indicated by ¹⁸Oâ€Łabelling Studies. Chemistry - A European Journal, 2011, 17, 5415-5423.	3.3	95
39	Structure and Orientation of the Mn4Ca Cluster in Plant Photosystem II Membranes Studied by Polarized Range-extended X-ray Absorption Spectroscopy*. Journal of Biological Chemistry, 2007, 282, 7198-7208.	3.4	91
40	S-3State of the Water Oxidase in Photosystem IIâ€. Biochemistry, 1997, 36, 6862-6873.	2.5	90
41	Generation, oxidation by the oxidized form of the tyrosine of polypeptide D2, and possible electronic configuration of the redox states S0, S-1, and S-2 of the water oxidase in isolated spinach thylakoids. Biochemistry, 1993, 32, 9379-9386.	2.5	84
42	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
43	Substrateâ€"water exchange in photosystem II is arrested before dioxygen formation. Nature Communications, 2014, 5, 4305.	12.8	79
44	Mechanism of Photosynthetic Oxygen Production. , 2005, , 567-608.		78
45	Structure-function relations in photosystem II. Effects of temperature and chaotropic agents on the period four oscillation of flash-induced oxygen evolution. Biochemistry, 1993, 32, 7658-7668.	2.5	74
46	On the functional significance of substrate accessibility in the photosynthetic water oxidation mechanism. Physiologia Plantarum, 1996, 96, 342-350.	5.2	74
47	Structural dynamics in the water and proton channels of photosystem II during the S2 to S3 transition. Nature Communications, 2021, 12, 6531.	12.8	73
48	On the functional significance of substrate accessibility in the photosynthetic water oxidation mechanism. Physiologia Plantarum, 1996, 96, 342-350.	5.2	66
49	Importance of Post-Translational Modifications for Functionality of a Chloroplast-Localized Carbonic Anhydrase (CAH1) in Arabidopsis thaliana. PLoS ONE, 2011, 6, e21021.	2.5	64
50	L-Edge X-ray Absorption Spectroscopy of Dilute Systems Relevant to Metalloproteins Using an X-ray Free-Electron Laser. Journal of Physical Chemistry Letters, 2013, 4, 3641-3647.	4.6	64
51	Dinuclear manganese complexes for water oxidation: evaluation of electronic effects and catalytic activity. Physical Chemistry Chemical Physics, 2014, 16, 11950.	2.8	64
52	Cationic Vacancy Defects in Iron Phosphide: A Promising Route toward Efficient and Stable Hydrogen Evolution by Electrochemical Water Splitting. ChemSusChem, 2017, 10, 4544-4551.	6.8	63
53	Orientation of Calcium in the Mn4Ca Cluster of the Oxygen-Evolving Complex Determined Using Polarized Strontium EXAFS of Photosystem II Membranesâ€. Biochemistry, 2004, 43, 13271-13282.	2.5	62
54	Focusing the view on nature's water-splitting catalyst. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1167-1177.	4.0	60

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55	Substrate water exchange in photosystem II core complexes of the extremophilic red alga Cyanidioschyzon merolae. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1257-1262.	1.0	59
56	Analyses of pH-Induced Modifications of the Period Four Oscillation of Flash-Induced Oxygen Evolution Reveal Distinct Structural Changes of the Photosystem II Donor Side at Characteristic pH Values. Biochemistry, 1994, 33, 10896-10905.	2.5	57
57	Electron Spinâˆ'Lattice Relaxation of the S0 State of the Oxygen-Evolving Complex in Photosystem II and of Dinuclear Manganese Model Complexes. Biochemistry, 2005, 44, 9368-9374.	2.5	57
58	Electronic Structural Changes of Mn in the Oxygen-Evolving Complex of Photosystem II during the Catalytic Cycle. Inorganic Chemistry, 2013, 52, 5642-5644.	4.0	57
59	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
60	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
61	Mobile hydrogen carbonate acts as proton acceptor in photosynthetic water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6299-6304.	7.1	55
62	Improving BiVO4 photoanodes for solar water splitting through surface passivation. Physical Chemistry Chemical Physics, 2014, 16, 12014.	2.8	55
63	Functional Differences of Photosystem II fromSynechococcus elongatusand Spinach Characterized by Flash Induced Oxygen Evolution Patternsâ€. Biochemistry, 2003, 42, 8929-8938.	2.5	54
64	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
65	Evidence That Bicarbonate Is Not the Substrate in Photosynthetic Oxygen Evolution. Plant Physiology, 2005, 139, 1444-1450.	4.8	53
66	Transparent Nanoparticulate FeOOH Improves the Performance of a WO₃ Photoanode in a Tandem Water-Splitting Device. Journal of Physical Chemistry C, 2016, 120, 10941-10950.	3.1	52
67	Membrane-inlet mass spectrometry reveals a high driving force for oxygen production by photosystem II. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3602-3607.	7.1	49
68	High-resolution X-ray spectroscopy of rare events: a different look at local structure and chemistry. Journal of Synchrotron Radiation, 2001, 8, 199-203.	2.4	45
69	High-performance iron (III) oxide electrocatalyst for water oxidation in strongly acidic media. Journal of Catalysis, 2018, 365, 29-35.	6.2	44
70	The reactivity of hydrazine with photosystem II strongly depends on the redox state of the water oxidizing system. FEBS Letters, 1990, 277, 141-146.	2.8	43
71	First turnover analysis of water-oxidation catalyzed by Co-oxide nanoparticles. Energy and Environmental Science, 2015, 8, 2492-2503.	30.8	43
72	High-resolution structure of the photosynthetic Mn₄Ca catalyst from X-ray spectroscopy. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1139-1147.	4.0	42

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73	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
74	Towards understanding the chemistry of photosynthetic oxygen evolution: dynamic structural changes, redox states and substrate water binding of the Mn cluster in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1459, 481-488.	1.0	41
75	No observable conformational changes in PSII. Nature, 2016, 533, E1-E2.	27.8	40
76	Pulse EPR, 55Mn-ENDOR and ELDOR-detected NMR of the S2-state of the oxygen evolving complex in Photosystem II. Photosynthesis Research, 2005, 84, 347-353.	2.9	37
77	Characterization of the water oxidizing complex of photosystem II of the Chl d-containing cyanobacterium Acaryochloris marina via its reactivity towards endogenous electron donors and acceptors. Physical Chemistry Chemical Physics, 2006, 8, 3460-3466.	2.8	37
78	Hydrogencarbonate is not a tightly bound constituent of the water-oxidizing complex in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 532-539.	1.0	35
79	Soft x-ray absorption spectroscopy of metalloproteins and high-valent metal-complexes at room temperature using free-electron lasers. Structural Dynamics, 2017, 4, 054307.	2.3	34
80	Assessment of the manganese clusterâ€™s oxidation state via photoactivation of photosystem II microcrystals. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 141-145.	7.1	34
81	Studying the oxidation of water to molecular oxygen in photosynthetic and artificial systems by time-resolved membrane-inlet mass spectrometry. Frontiers in Plant Science, 2013, 4, 473.	3.6	33
82	Structure-function relationships in photosynthetic water oxidation. Biochemical Society Transactions, 1994, 22, 318-322.	3.4	31
83	Scalable Two-Step Synthesis of Nickelâ€“Iron Phosphide Electrodes for Stable and Efficient Electrocatalytic Hydrogen Evolution. Journal of Physical Chemistry C, 2017, 121, 284-292.	3.1	31
84	Structural isomers of the S₂ state in photosystem II: do they exist at room temperature and are they important for function?. Physiologia Plantarum, 2019, 166, 60-72.	5.2	30
85	Is Mn-Bound Substrate Water Protonated in the S 2 State of Photosystem II?. Applied Magnetic Resonance, 2010, 37, 123-136.	1.2	29
86	Probing the turnover efficiency of photosystem II membrane fragments with different electron acceptors. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1208-1212.	1.0	29
87	Interactions of photosystem II with bicarbonate, formate and acetate. Photosynthesis Research, 2007, 94, 247-264.	2.9	28
88	Toward a Lowâ€Cost Artificial Leaf: Driving Carbonâ€Based and Bifunctional Catalyst Electrodes with Solutionâ€Processed Perovskite Photovoltaics. Advanced Energy Materials, 2016, 6, 1600738.	19.5	28
89	Bicarbonate-Mediated CO₂ Formation on Both Sides of PhotosystemÂII. Biochemistry, 2020, 59, 2442-2449.	2.5	28
90	Probing Mode and Site of Substrate Water Binding to the Oxygen-Evolving Complex in the S₂ State of Photosystem II by ¹⁷O-HYSCORE Spectroscopy. Journal of the American Chemical Society, 2008, 130, 786-787.	13.7	27

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91	Water oxidation by photosystem II is the primary source of electrons for sustained H ₂ photoproduction in nutrient-replete green algae. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29629-29636.	7.1	27
92	Crystal Structure and Functional Characterization of Photosystem II-Associated Carbonic Anhydrase CAH3 in <i>Chlamydomonas reinhardtii</i>. Plant Physiology, 2015, 167, 950-962.	4.8	26
93	Electrocatalytic Water Oxidation by MnO_{<i>x</i>}/C: In Situ Catalyst Formation, Carbon Substrate Variations, and Direct O₂/CO₂ Monitoring by Membraneâ€Inlet Mass Spectrometry. ChemSusChem, 2017, 10, 4491-4502.	6.8	26
94	Effects of methanol on the S i -state transitions in photosynthetic water-splitting. Photosynthesis Research, 2008, 98, 251-260.	2.9	25
95	Toward Sustainable H2 Production: Linking Hydrogenase with Photosynthesis. Joule, 2020, 4, 1157-1159.	24.0	25
96	Cobalt-doped hematite thin films for electrocatalytic water oxidation in highly acidic media. Chemical Communications, 2019, 55, 5017-5020.	4.1	24
97	Substrate water exchange in the S₂ state of photosystem II is dependent on the conformation of the Mn₄Ca cluster. Physical Chemistry Chemical Physics, 2020, 22, 12894-12908.	2.8	24
98	Towards characterization of photo-excited electron transfer and catalysis in natural and artificial systems using XFELs. Faraday Discussions, 2016, 194, 621-638.	3.2	19
99	Estimation of the driving force for dioxygen formation in photosynthesis. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 23-33.	1.0	19
100	Maghemite nanorods anchored on a 3D nitrogen-doped carbon nanotubes substrate as scalable direct electrode for water oxidation. International Journal of Hydrogen Energy, 2016, 41, 69-78.	7.1	19
101	Efficiency of photosynthetic water oxidation at ambient and depleted levels of inorganic carbon. Photosynthesis Research, 2013, 117, 401-412.	2.9	18
102	The exchange of the fast substrate water in the S₂ state of photosystem II is limited by diffusion of bulk water through channels â€“ implications for the water oxidation mechanism. Chemical Science, 2021, 12, 12763-12775.	7.4	18
103	The Mn ₄ Ca photosynthetic water-oxidation catalyst studied by simultaneous X-ray spectroscopy and crystallography using an X-ray free-electron laser. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130324.	4.0	17
104	Photosynthetic O2 Evolution. RSC Energy and Environment Series, 2011, , 163-207.	0.5	17
105	Tumor antigen glycosaminoglycan modification regulates antibody-drug conjugate delivery and cytotoxicity. Oncotarget, 2017, 8, 66960-66974.	1.8	17
106	Structural Changes in the Water-Oxidizing Complex Monitored via the pH Dependence of the Reduction Rate of Redox State S1 by Hydrazine and Hydroxylamine in Isolated Spinach Thylakoids. Biochemistry, 1995, 34, 6175-6182.	2.5	16
107	Enzymatic Characterization of Membrane-Associated Hepatitis C Virus NS3-4A Heterocomplex Serine Protease Activity Expressed in Human Cellsâ€. Biochemistry, 2005, 44, 6586-6596.	2.5	16
108	Electrochemically produced hydrogen peroxide affects Joliot-type oxygen-evolution measurements of photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1411-1416.	1.0	16

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109	Photosynthesis: from natural to artificial. Physical Chemistry Chemical Physics, 2014, 16, 11810.	2.8	16
110	XANES and EXAFS of dilute solutions of transition metals at XFELs. Journal of Synchrotron Radiation, 2019, 26, 1716-1724.	2.4	16
111	Nitric Oxide-Induced Formation of the S-2State in the Oxygen-Evolving Complex of Photosystem II fromSynechococcus elongatusâ€. Biochemistry, 2003, 42, 1016-1023.	2.5	15
112	Quantification of bound bicarbonate in photosystem II. Photosynthetica, 2018, 56, 210-216.	1.7	15
113	â€˜Birth defectsâ€™ of photosystem II make it highly susceptible to photodamage during chloroplast biogenesis. Physiologia Plantarum, 2019, 166, 165-180.	5.2	15
114	Solar-Driven Water Splitting at 13.8% Solar-to-Hydrogen Efficiency by an Earth-Abundant Electrolyzer. ACS Sustainable Chemistry and Engineering, 2021, 9, 14070-14078.	6.7	15
115	Reversible Structural Isomerization of Natureâ€™s Water Oxidation Catalyst Prior to Oâ€"O Bond Formation. Journal of the American Chemical Society, 2022, 144, 11736-11747.	13.7	15
116	Photo-electrochemical hydrogen production from neutral phosphate buffer and seawater using micro-structured p-Si photo-electrodes functionalized by solution-based methods. Sustainable Energy and Fuels, 2018, 2, 2215-2223.	4.9	14
117	Chapter 17. Photosynthetic Water Splitting. Comprehensive Series in Photochemical and Photobiological Sciences, 2007, , 291-349.	0.3	13
118	Mass Spectrometry-Based Methods for Studying Kinetics and Dynamics in Biological Systems. Advances in Photosynthesis and Respiration, 2008, , 167-190.	1.0	13
119	Catalysts for Solar Water Splitting. ChemSusChem, 2009, 2, 47-48.	6.8	12
120	Biogenesis of water splitting by photosystem II during deâ€etiolation of barley (<i>Hordeum vulgare</i>) Tj ETQq0 0 0 rgBT /Overlock 10	5.7	12
121	Light-Dependent Production of Dioxygen in Photosynthesis. Metal Ions in Life Sciences, 2015, 15, 13-43.	2.8	11
122	Artificial photosynthesis â€" from sunlight to fuels and valuable products for a sustainable future. Sustainable Energy and Fuels, 2018, 2, 1891-1892.	4.9	11
123	Room temperature XFEL crystallography reveals asymmetry in the vicinity of the two phylloquinones in photosystem I. Scientific Reports, 2021, 11, 21787.	3.3	11
124	Unequal misses during the flash-induced advancement of photosystem II: effects of the S state and acceptor side cycles. Photosynthesis Research, 2019, 139, 93-106.	2.9	10
125	Calcium and Chloride Cofactors of the Oxygen Evolving Complex - X-Ray Absorption Spectroscopy Evidence for A Mn/Ca/Cl Heteronuclear Cluster. , 1998, , 1399-1402.		10
126	Effects of x-ray free-electron laser pulse intensity on the Mn K<i>Î²</i>_{1,3} x-ray emission spectrum in photosystem IIâ€"A case study for metalloprotein crystals and solutions. Structural Dynamics, 2021, 8, 064302.	2.3	10

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127	Probing S-state advancements and recombination pathways in photosystem II with a global fit program for flash-induced oxygen evolution pattern. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 848-859.	1.0	9
128	Molecular basis for turnover inefficiencies (misses) during water oxidation in photosystem II. Chemical Science, 2022, 13, 8667-8678.	7.4	9
129	Liquid-Phase Measurements of Photosynthetic Oxygen Evolution. Methods in Molecular Biology, 2018, 1770, 197-211.	0.9	8
130	Reply to Wang et al.: Clear evidence of binding of Ox to the oxygen-evolving complex of photosystem II is best observed in the omit map. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2102342118.	7.1	7
131	A microstructured p-Si photocathode outcompetes Pt as a counter electrode to hematite in photoelectrochemical water splitting. Dalton Transactions, 2019, 48, 1166-1170.	3.3	6
132	The D1-V185N mutation alters substrate water exchange by stabilizing alternative structures of the Mn4Ca-cluster in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148319.	1.0	6
133	Special educational issue on â€˜Basics and application of biophysical techniques in photosynthesis and related processesâ€™. Photosynthesis Research, 2009, 101, 89-92.	2.9	5
134	An Institutional Approach to Solar Fuels Research. Australian Journal of Chemistry, 2012, 65, 573.	0.9	5
135	Thomas John Wydrzynski (8 July 1947â€“16 March 2018). Photosynthesis Research, 2019, 140, 253-261.	2.9	5
136	Substrate Water 18O Exchange Kinetics in the S2 State of Photosystem II. , 1998, , 1307-1310.		5
137	Water Oxidation by Pentapyridyl Base Metal Complexes? A Case Study. Inorganic Chemistry, 2022, 61, 9104-9118.	4.0	5
138	Gernot Renger (1937â€“2013): his life, Max-Volmer Laboratory, and photosynthesis research. Photosynthesis Research, 2016, 129, 109-127.	2.9	4
139	Electrochemical N2 reduction at ambient condition â€“ Overcoming the selectivity issue via control of reactantsâ€™ availabilities. International Journal of Hydrogen Energy, 2021, 46, 30366-30372.	7.1	4
140	Warwick Hillier: a tribute. Photosynthesis Research, 2014, 122, 1-11.	2.9	3
141	Hydration of the oxygen-evolving complex of photosystem II probed in the dark-stable S1 state using proton NMR dispersion profiles. Physical Chemistry Chemical Physics, 2014, 16, 11924.	2.8	3
142	We remember those who left us in the recent past. Physiologia Plantarum, 2019, 166, 7-11.	5.2	3
143	Spin transition in a ferrous chloride complex supported by a pentapyridine ligand. Chemical Communications, 2020, 56, 2703-2706.	4.1	3
144	Electronic and geometric structure effects on one-electron oxidation of first-row transition metals in the same ligand framework. Dalton Transactions, 2021, 50, 660-674.	3.3	3

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145	Refined Model of the Oxidation States and Structures of the Mn/Ca/Cl Cluster of the Oxygen Evolving Complex of Photosystem II. , 1998, , 1273-1278.		3
146	More than protection: the function of TiO₂ interlayers in hematite functionalized Si photoanodes. Physical Chemistry Chemical Physics, 2020, 22, 28459-28467.	2.8	3
147	Biophysical studies of Photosystem II and related model systems. Physical Chemistry Chemical Physics, 2004, 6, E11-E12.	2.8	2
148	Special educational issue on â€˜Basics and application of biophysical techniques in photosynthesis and related processesâ€™â€"Part B. Photosynthesis Research, 2009, 102, 103-106.	2.9	2
149	New Results on the Mechanism of Photosynthetic Water Oxidation. , 1989, , 355-371.		2
150	Principles of photosynthesis. , 0, , 302-314.		1
151	Photosynthesisâ€"European Congress on Photosynthesis Research. Physiologia Plantarum, 2019, 166, 4-6.	5.2	1
152	Formate-Induced Release of Carbon Dioxide/ Hydrogencarbonate from Photosystem II. , 2008, , 495-498.		1
153	Electronic Structure of the Mn4Ca Cluster in the Oxygen-Evolving Complex of Photosystem II Studied by Resonant Inelastic X-Ray Scattering. AIP Conference Proceedings, 2007, , .	0.4	0
154	Valence-to-Core X-Ray Emission Spectroscopy as a Tool for Investigation of Organometallic Systems. AIP Conference Proceedings, 2007, , .	0.4	0
155	S2.9 Hydrogencarbonate is not a structural part of the Mn4OxCa cluster in photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, S23.	1.0	0
156	Photovoltaics: Toward a Lowâ€Cost Artificial Leaf: Driving Carbonâ€Based and Bifunctional Catalyst Electrodes with Solutionâ€Processed Perovskite Photovoltaics (Adv. Energy Mater. 20/2016). Advanced Energy Materials, 2016, 6, .	19.5	0
157	Structure of the Photosynthetic Mn4Ca Cluster Using X-ray Spectroscopy. , 2008, , 533-538.		0
158	Electronic Structure and Oxidation State Changes in the Mn4Ca Cluster of Photosystem II. , 2008, , 529-532.		0
159	Effects of Chloride/Bromide Substitution on Substrate Water Exchange Rates in Photosystem II. , 2008, , 369-371.		0
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