

A William Rutherford

List of Publications by Year in descending order

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Charge separation in Photosystem II: A comparative and evolutionary overview. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 26-43.	0.5	293
2	Artificial photosynthesis as a frontier technology for energy sustainability. <i>Energy and Environmental Science</i> , 2013, 6, 1074.	15.6	284
3	EPR signals from modified charge accumulation states of the oxygen-evolving enzyme in calcium-deficient photosystem II. <i>Biochemistry</i> , 1989, 28, 8984-8989.	1.2	280
4	Photosystem II, the water-splitting enzyme. <i>Trends in Biochemical Sciences</i> , 1989, 14, 227-232.	3.7	279
5	In the oxygen-evolving complex of photosystem II the S ₀ state is oxidized to the S ₁ state by D ⁺ (signal) Tj ETQq1 1,0,784314,rgBT /Ove	1.2	275
6	Site-directed mutagenesis in photosystem II of the cyanobacterium <i>Synechocystis</i> sp. PCC 6803: Donor D is a tyrosine residue in the D2 protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988, 85, 8477-8481.	3.3	271
7	Thermoluminescence as a probe of Photosystem II photochemistry. The origin of the flash-induced glow peaks. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1982, 682, 457-465.	0.5	270
8	Herbicide-induced oxidative stress in photosystem II. <i>Trends in Biochemical Sciences</i> , 2001, 26, 648-653.	3.7	270
9	Energy and environment policy case for a global project on artificial photosynthesis. <i>Energy and Environmental Science</i> , 2013, 6, 695.	15.6	264
10	Nature of the inhibition of the oxygen-evolving enzyme of photosystem II induced by sodium chloride washing and reversed by the addition of calcium(2+) or strontium(2+). <i>Biochemistry</i> , 1988, 27, 3476-3483.	1.2	262
11	Histidine oxidation in the oxygen-evolving photosystem-II enzyme. <i>Nature</i> , 1990, 347, 303-306.	13.7	246
12	Back-reactions, short-circuits, leaks and other energy wasteful reactions in biological electron transfer: Redox tuning to survive life in O ₂ . <i>FEBS Letters</i> , 2012, 586, 603-616.	1.3	234
13	Wiring of Photosystem II to Hydrogenase for Photoelectrochemical Water Splitting. <i>Journal of the American Chemical Society</i> , 2015, 137, 8541-8549.	6.6	228
14	Photochemistry beyond the red limit in chlorophyll <i>f</i> -containing photosystems. <i>Science</i> , 2018, 360, 1210-1213.	6.0	216
15	Effect of Ca ²⁺ /Sr ²⁺ Substitution on the Electronic Structure of the Oxygen-Evolving Complex of Photosystem II: A Combined Multifrequency EPR, ⁵⁵ Mn-ENDOR, and DFT Study of the S ₂ State. <i>Journal of the American Chemical Society</i> , 2011, 133, 3635-3648.	6.6	211
16	Photosynthetic reaction centres: variations on a common structural theme?. <i>Trends in Biochemical Sciences</i> , 1991, 16, 241-245.	3.7	209
17	Electron paramagnetic resonance properties of the S ₂ state of the oxygen-evolving complex of photosystem II. <i>Biochemistry</i> , 1986, 25, 4609-4615.	1.2	206
18	Photoelectrochemical Water Oxidation with Photosystem II Integrated in a Mesoporous Indium-Tin Oxide Electrode. <i>Journal of the American Chemical Society</i> , 2012, 134, 8332-8335.	6.6	199

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19	EPR studies of the oxygen-evolving enzyme of Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 767, 160-167.	0.5	186
20	Carotenoid Oxidation in Photosystem II. <i>Biochemistry</i> , 1999, 38, 8189-8195.	1.2	183
21	Singlet oxygen production in herbicide-treated photosystem II. <i>FEBS Letters</i> , 2002, 532, 407-410.	1.3	167
22	A change in the midpoint potential of the quinone QA in Photosystem II associated with photoactivation of oxygen evolution. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1995, 1229, 202-207.	0.5	166
23	Influence of Herbicide Binding on the Redox Potential of the Quinone Acceptor in Photosystem II: Relevance to Photodamage and Phytotoxicity. <i>Biochemistry</i> , 1998, 37, 17339-17344.	1.2	161
24	Conversion of the Spin State of the Manganese Complex in Photosystem II Induced by Near-Infrared Light. <i>Biochemistry</i> , 1996, 35, 6984-6989.	1.2	159
25	Photosystem II and photosynthetic oxidation of water: an overview. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2002, 357, 1369-1381.	1.8	151
26	On the determination of redox midpoint potential of the primary quinone electron acceptor, QA, in Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1995, 1229, 193-201.	0.5	145
27	Biosynthetic Ca ²⁺ /Sr ²⁺ Exchange in the Photosystem II Oxygen-evolving Enzyme of <i>Thermosynechococcus elongatus</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 22809-22819.	1.6	145
28	EPR evidence for a modified S-state transition in chloride-depleted Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1986, 851, 193-201.	0.5	141
29	g-Values as a Probe of the Local Protein Environment: High-Field EPR of Tyrosyl Radicals in Ribonucleotide Reductase and Photosystem II. <i>Journal of the American Chemical Society</i> , 1995, 117, 10713-10719.	6.6	141
30	A new EPR signal attributed to the primary plastosemiquinone acceptor in Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 767, 168-175.	0.5	139
31	Charge Recombination Reactions in Photosystem II. 1. Yields, Recombination Pathways, and Kinetics of the Primary Pair. <i>Biochemistry</i> , 1995, 34, 4798-4813.	1.2	138
32	Primary photochemistry in photosystem-I. <i>Photosynthesis Research</i> , 1985, 6, 295-316.	1.6	136
33	Charge accumulation and photochemistry in leaves studied by thermoluminescence and delayed light emission. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1984, 81, 1107-1111.	3.3	132
34	Orientation of EPR signals arising from components in Photosystem II membranes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1985, 807, 189-201.	0.5	130
35	Deactivation kinetics and temperature dependence of the S-state transitions in the oxygen-evolving system of Photosystem II measured by EPR spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1988, 933, 378-387.	0.5	126
36	A light-induced spin-polarized triplet detected by EPR in Photosystem II reaction centers. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1981, 635, 205-214.	0.5	125

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37	A chlorophyll tilted 30° relative to the membrane in the Photosystem II reaction centre. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1991, 1058, 379-385.	0.5	125
38	Mechanism of proton-coupled quinone reduction in Photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 954-959.	3.3	125
39	BIOCHEMISTRY: Water Photolysis in Biology. <i>Science</i> , 2004, 303, 1782-1784.	6.0	122
40	Inhibition of tyrosine Z photooxidation after formation of the S3-state in calcium-depleted and chloride-depleted photosystem-II. <i>Biochemistry</i> , 1992, 31, 1224-1234.	1.2	119
41	Thermoluminescence as a probe of photosystem II. The redox and protonation states of the secondary acceptor quinone and the O ₂ -evolving enzyme. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 767, 548-556.	0.5	118
42	Rapid formation of the stable tyrosyl radical in photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 14368-14373.	3.3	118
43	X-ray crystallography identifies two chloride binding sites in the oxygen evolving centre of Photosystem II. <i>Energy and Environmental Science</i> , 2008, 1, 161.	15.6	118
44	Hydroxyl Radical Generation by Photosystem II. <i>Biochemistry</i> , 2004, 43, 6783-6792.	1.2	117
45	Photosynthetic reaction center of green sulfur bacteria studied by EPR. <i>Biochemistry</i> , 1990, 29, 3834-3842.	1.2	112
46	Resolving intermediates in biological proton-coupled electron transfer: A tyrosyl radical prior to proton movement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 8732-8735.	3.3	112
47	Covalent Immobilization of Oriented Photosystem II on a Nanostructured Electrode for Solar Water Oxidation. <i>Journal of the American Chemical Society</i> , 2013, 135, 10610-10613.	6.6	112
48	Energetics of proton release on the first oxidation step in the water-oxidizing enzyme. <i>Nature Communications</i> , 2015, 6, 8488.	5.8	111
49	The microwave power saturation of SII _{slow} varies with the redox state of the oxygen-evolving complex in photosystem II. <i>Biochemistry</i> , 1988, 27, 4915-4923.	1.2	110
50	Bicarbonate-induced redox tuning in Photosystem II for regulation and protection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12144-12149.	3.3	107
51	Photosystem II: evolutionary perspectives. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2003, 358, 245-253.	1.8	106
52	Photoreductant-induced oxidation of Fe ²⁺ in the electron-acceptor complex of Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1986, 851, 416-423.	0.5	105
53	High-Spin States (S=5/2) of the Photosystem II Manganese Complex. <i>Biochemistry</i> , 1998, 37, 4001-4007.	1.2	102
54	EPR measurements on the effects of bicarbonate and triazine resistance on the acceptor side of Photosystem II. <i>FEBS Letters</i> , 1984, 175, 243-248.	1.3	101

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55	A systematic survey of conserved histidines in the core subunits of Photosystem I by site-directed mutagenesis reveals the likely axial ligands of P700. <i>EMBO Journal</i> , 1998, 17, 50-60.	3.5	101
56	Limitations to photosynthesis by proton motive force-induced photosystem II photodamage. <i>ELife</i> , 2016, 5, .	2.8	101
57	Characterization of four herbicide-resistant mutants of <i>Rhodospseudomonas viridis</i> by genetic analysis, electron paramagnetic resonance, and optical spectroscopy. <i>Biochemistry</i> , 1989, 28, 5544-5553.	1.2	99
58	Artificial photosynthetic systems. Using light and water to provide electrons and protons for the synthesis of a fuel. <i>Energy and Environmental Science</i> , 2011, 4, 2353.	15.6	99
59	The stable tyrosyl radical in Photosystem II: why D?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004, 1655, 222-230.	0.5	98
60	Photoelectrochemistry of Photosystem II <i>in Vitro</i> vs <i>in Vivo</i> . <i>Journal of the American Chemical Society</i> , 2018, 140, 6-9.	6.6	98
61	\hat{I}^2 -Carotene Redox Reactions in Photosystem II: Electron Transfer Pathway. <i>Biochemistry</i> , 2001, 40, 6431-6440.	1.2	97
62	Artificial systems related to light driven electron transfer processes in PSII. <i>Coordination Chemistry Reviews</i> , 2008, 252, 456-468.	9.5	96
63	Origin and Evolution of Water Oxidation before the Last Common Ancestor of the Cyanobacteria. <i>Molecular Biology and Evolution</i> , 2015, 32, 1310-1328.	3.5	96
64	Early Archean origin of Photosystem II. <i>Geobiology</i> , 2019, 17, 127-150.	1.1	95
65	Genetically engineered mutant of the cyanobacterium <i>Synechocystis</i> 6803 lacks the photosystem II chlorophyll-binding protein CP-47. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986, 83, 9474-9477.	3.3	94
66	Factors influencing the formation of modified S2EPR signal and the S3EPR signal in Ca ²⁺ -depleted photosystem II. <i>FEBS Letters</i> , 1990, 277, 69-74.	1.3	94
67	The origin of 40-50°C thermoluminescence bands in Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1994, 1184, 85-92.	0.5	94
68	Redox-coupled substrate water reorganization in the active site of Photosystem II: The role of calcium in substrate water delivery. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 740-748.	0.5	94
69	Reaction center triplet states in Photosystem I and Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1981, 635, 225-235.	0.5	93
70	Direct measurement of the redox potential of the primary and secondary quinone electron acceptors in <i>Rhodospseudomonas sphaeroides</i> (wild-type) by EPR Spectrometry. <i>FEBS Letters</i> , 1980, 110, 257-261.	1.3	91
71	Electron transfer pathways from the S ₂ -states to the S ₃ -states either after a Ca ²⁺ /Sr ²⁺ or a Cl ⁻ /I ⁻ exchange in Photosystem II from <i>Thermosynechococcus elongatus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2015, 1847, 576-586.	0.5	89
72	Charge Recombination Reactions in Photosystem II. 2. Transient Absorbance Difference Spectra and Their Temperature Dependence. <i>Biochemistry</i> , 1995, 34, 4814-4827.	1.2	88

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73	Properties of the Chloride-Depleted Oxygen-Evolving Complex of Photosystem II Studied by Electron Paramagnetic Resonance. <i>Biochemistry</i> , 1996, 35, 1829-1839.	1.2	85
74	Reaction center photochemistry of <i>Heliobacterium chlorum</i> . <i>Biochemistry</i> , 1990, 29, 11079-11088.	1.2	84
75	Complete EPR Spectrum of the S ₃ -State of the Oxygen-Evolving Photosystem II. <i>Journal of the American Chemical Society</i> , 2009, 131, 5050-5051.	6.6	83
76	The electronic structures of the S ₂ states of the oxygen-evolving complexes of photosystem II in plants and cyanobacteria in the presence and absence of methanol. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 829-840.	0.5	81
77	Ca ²⁺ binding to the oxygen evolving enzyme varies with the redox state of the Mn cluster. <i>FEBS Letters</i> , 1988, 236, 432-436.	1.3	80
78	Measurement of the midpoint potential of the pheophytin acceptor of photosystem II. <i>FEBS Letters</i> , 1981, 123, 235-237.	1.3	78
79	Oscillation of delayed luminescence from PS II: recombination of S ₂ Q ^{•-} B and S ₃ Q ^{•-} B. <i>FEBS Letters</i> , 1984, 165, 163-170.	1.3	78
80	Interaction of ammonia with the water splitting enzyme of photosystem II. <i>Biochemistry</i> , 1990, 29, 24-32.	1.2	78
81	Orientation of the Phylloquinone Electron Acceptor Anion Radical in Photosystem I. <i>Biochemistry</i> , 1997, 36, 9297-9303.	1.2	78
82	Orientation of the Tyrosyl D, Pheophytin Anion, and Semiquinone QA ^{•-} -Radicals in Photosystem II Determined by High-Field Electron Paramagnetic Resonance. <i>Biochemistry</i> , 2000, 39, 7826-7834.	1.2	77
83	The low spin - high spin equilibrium in the S ₂ -state of the water oxidizing enzyme. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 342-356.	0.5	77
84	Influence of the Redox Potential of the Primary Quinone Electron Acceptor on Photoinhibition in Photosystem II. <i>Journal of Biological Chemistry</i> , 2007, 282, 12492-12502.	1.6	75
85	Tetraheme cytochrome c subunit of <i>Rhodospseudomonas viridis</i> characterized by EPR. <i>Biochemistry</i> , 1989, 28, 3161-3168.	1.2	74
86	Tyrosine D Oxidation at Cryogenic Temperature in Photosystem II. <i>Biochemistry</i> , 2002, 41, 12914-12920.	1.2	74
87	Site-Directed Mutagenesis of <i>Thermosynechococcus elongatus</i> Photosystem II: The O ₂ -Evolving Enzyme Lacking the Redox-Active Tyrosine D. <i>Biochemistry</i> , 2004, 43, 13549-13563.	1.2	73
88	A high-field EPR tour of radicals in photosystems I and II. <i>Applied Magnetic Resonance</i> , 2001, 21, 341-361.	0.6	72
89	Influence of DCMU and ferricyanide on photodamage in photosystem II. <i>Biochemistry</i> , 1994, 33, 3087-3095.	1.2	69
90	Mechanism of tyrosine D oxidation in Photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 7690-7695.	3.3	67

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91	EPR relaxation measurements of Photosystem II reaction centers: influence of S-state oxidation and temperature. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1989, 973, 428-442.	0.5	66
92	SQUID Magnetization Study of the Infrared-Induced Spin Transition in the S2 State of Photosystem II: A Spin Value Associated with the g = 4.1 EPR Signal. <i>Journal of the American Chemical Society</i> , 1998, 120, 7924-7928.	6.6	65
93	Biosynthetic Exchange of Bromide for Chloride and Strontium for Calcium in the Photosystem II Oxygen-evolving Enzymes. <i>Journal of Biological Chemistry</i> , 2008, 283, 13330-13340.	1.6	65
94	EPR Study of the Oxygen Evolving Complex in His-Tagged Photosystem II from the Cyanobacterium <i>Synechococcus elongatus</i> . <i>Biochemistry</i> , 2000, 39, 13788-13799.	1.2	64
95	Effect of phenolic herbicides on the oxygen-evolving side of Photosystem II. Formation of the carotenoid cation. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 767, 217-222.	0.5	63
96	The First State in the Catalytic Cycle of the Water-Oxidizing Enzyme: Identification of a Water-Derived $\frac{1}{4}$ -Hydroxo Bridge. <i>Journal of the American Chemical Society</i> , 2017, 139, 14412-14424.	6.6	63
97	The manganese center of oxygen-evolving and calcium-depleted photosystem II: a pulsed EPR spectroscopy study. <i>Biochemistry</i> , 1993, 32, 4831-4841.	1.2	62
98	Angular orientation of the stable tyrosyl radical within photosystem II by high-field 245-GHz electron paramagnetic resonance.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994, 91, 5262-5266.	3.3	62
99	Low-Temperature Electron Transfer in Photosystem II: A Tyrosyl Radical and Semiquinone Charge Pair. <i>Biochemistry</i> , 2004, 43, 13787-13795.	1.2	60
100	Hacking the thylakoid proton motive force for improved photosynthesis: modulating ion flux rates that control proton motive force partitioning into $\Delta\psi$ and ΔpH . <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160381.	1.8	60
101	Effect of Near-Infrared Light on the S2-State of the Manganese Complex of Photosystem II from <i>Synechococcus elongatus</i> . <i>Biochemistry</i> , 1998, 37, 8995-9000.	1.2	58
102	1D- and 2D-ESEEM Study of the Semiquinone Radical QA- of Photosystem II. <i>Journal of the American Chemical Society</i> , 1999, 121, 7653-7664.	6.6	58
103	Orientation of P700, the primary electron donor of Photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1990, 1019, 128-132.	0.5	57
104	Secondary Quinone in Photosystem II of <i>Thermosynechococcus elongatus</i> : Semiquinone-iron EPR Signals and Temperature Dependence of Electron Transfer. <i>Biochemistry</i> , 2005, 44, 12780-12789.	1.2	55
105	The effect of herbicides on components of the PS II reaction centre measured by EPR. <i>FEBS Letters</i> , 1984, 165, 156-162.	1.3	54
106	Assessing the feasibility of carbon dioxide mitigation options in terms of energy usage. <i>Nature Energy</i> , 2020, 5, 720-728.	19.8	54
107	ESEEM Study of the Phyllosemiquinone Radical A1 in ^{14}N - and ^{15}N -Labeled Photosystem II. <i>Biochemistry</i> , 1997, 36, 11543-11549.	1.2	53
108	Relationship between Activity, D1 Loss, and Mn Binding in Photoinhibition of Photosystem II. <i>Biochemistry</i> , 1998, 37, 16262-16269.	1.2	52

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109	Oxygen-evolving photosystem II preparation from wild-type and photosystem II mutants of <i>Synechocystis</i> sp. PCC 6803. <i>Biochemistry</i> , 1992, 31, 2099-2107.	1.2	51
110	Comparative study of the g=4.1 EPR signals in the S2 state of photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2000, 1457, 145-156.	0.5	51
111	A relationship between the midpoint potential of the primary acceptor and low temperature photochemistry in photosystem II. <i>FEBS Letters</i> , 1983, 154, 328-334.	1.3	48
112	Energetics of the exchangeable quinone, Q _B , in Photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19458-19463.	3.3	48
113	Chemical Modeling of the Oxygen-Evolving Center in Plants. Synthesis, Structure, and Electronic and Redox Properties of a New Mixed Valence Mn ^{III} Oxo Cluster: $[Mn^{III}_2IVO_2(bisimMe_2en)_2]^{3+}(bisimMe_2en)_T$ Induced by UV Irradiation at Low Temperature. <i>Journal of the American Chemical Society</i> , 1996, 118, 2669-2678.	6.6	47
114	Electron-paramagnetic-resonance measurements of the electron-transfer components of the reaction centre of <i>Rhodospseudomonas viridis</i> . Oxidation/reduction potentials and interactions of the electron acceptors. <i>Biochemical Journal</i> , 1979, 182, 515-523.	3.2	46
115	The heart of photosynthesis in glorious 3D. <i>Trends in Biochemical Sciences</i> , 2001, 26, 341-344.	3.7	46
116	Reduction of the Mn Cluster of the Water-Oxidizing Enzyme by Nitric Oxide: Formation of an S-2 State. <i>Biochemistry</i> , 2002, 41, 3057-3064.	1.2	46
117	Time-resolved comparative molecular evolution of oxygenic photosynthesis. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021, 1862, 148400.	0.5	44
118	Multifrequency High-Field EPR Study of the Interaction between the Tyrosyl Z Radical and the Manganese Cluster in Plant Photosystem II. <i>Journal of Physical Chemistry B</i> , 1999, 103, 10945-10954.	1.2	43
119	Chlorophyll and Carotenoid Radicals in Photosystem II Studied by Pulsed ENDOR. <i>Biochemistry</i> , 2001, 40, 320-326.	1.2	43
120	Characterization of Nuclear Mutants of Maize Which Lack the Cytochrome f/b-563 Complex. <i>Plant Physiology</i> , 1983, 73, 452-459.	2.3	42
121	The effect of ambient redox potential on the transient electron spin echo signals observed in chloroplasts and photosynthetic algae. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1982, 682, 332-338.	0.5	41
122	The origin of the split S3 EPR signal in calcium-depleted photosystem II: histidine versus tyrosine. <i>Biochemistry</i> , 1992, 31, 7441-7445.	1.2	41
123	ESEEM study of the plastoquinone anion radical (QA ^{•-}) in ¹⁴ N- and ¹⁵ N-labeled photosystem II treated with cyanide. <i>Biochemistry</i> , 1995, 34, 16030-16038.	1.2	40
124	Modification of the pheophytin redox potential in <i>Thermosynechococcus elongatus</i> Photosystem II with PsbA3 as D1. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 139-148.	0.5	40
125	Evolution of Photochemical Reaction Centres: More Twists?. <i>Trends in Plant Science</i> , 2019, 24, 1008-1021.	4.3	40
126	The pH dependence of the redox midpoint potential of the 2Fe2S cluster from cytochrome b6f complex (the Rieske centre). <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1992, 1102, 266-268.	0.5	39

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127	Detection of an Electron Paramagnetic Resonance Signal in the S0 State of the Manganese Complex of Photosystem II from <i>Synechococcus elongatus</i> . <i>Biochemistry</i> , 1999, 38, 11942-11948.	1.2	39
128	Comparison of chloride-depleted and calcium-depleted PSII: the midpoint potential of QA and susceptibility to photodamage. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1997, 1319, 91-98.	0.5	38
129	Evidence for a unique Rieske iron-sulphur centre in <i>Heliobacterium chlorum</i> . <i>FEBS Letters</i> , 1990, 261, 427-430.	1.3	37
130	Near-infrared-induced Transitions in the Manganese Cluster of Photosystem II: Action Spectra for the S2 and S3 Redox States. <i>Plant and Cell Physiology</i> , 2005, 46, 837-842.	1.5	37
131	Purification, crystallization and X-ray diffraction analyses of the <i>T. elongatus</i> PSII core dimer with strontium replacing calcium in the oxygen-evolving complex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007, 1767, 404-413.	0.5	37
132	Effects of Copper and Zinc Ions on Photosystem II Studied by EPR Spectroscopy. <i>Biochemistry</i> , 1999, 38, 12439-12445.	1.2	36
133	Cytochrome c550 in the Cyanobacterium <i>Thermosynechococcus elongatus</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 52869-52880.	1.6	36
134	Pure forms of the singlet oxygen sensors TEMP and TEMPD do not inhibit Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 1658-1661.	0.5	36
135	Molecular Principles of Redox-Coupled Protonation Dynamics in Photosystem II. <i>Journal of the American Chemical Society</i> , 2022, 144, 7171-7180.	6.6	35
136	Electron spin echo envelope modulation spectroscopy in photosystem I. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2001, 1507, 226-246.	0.5	34
137	Low-temperature photochemistry in photosystem II from <i>Thermosynechococcus elongatus</i> induced by visible and near-infrared light. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008, 363, 1203-1210.	1.8	34
138	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. <i>Biophysical Journal</i> , 2009, 97, 2024-2033.	0.2	34
139	Photoelectron Generation by Photosystem II Core Complexes Tethered to Gold Surfaces. <i>ChemSusChem</i> , 2010, 3, 471-475.	3.6	34
140	Photocurrents from photosystem II in a metal oxide hybrid system: Electron transfer pathways. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1497-1505.	0.5	34
141	Femtosecond Visible Transient Absorption Spectroscopy of Chlorophyll f-Containing Photosystem I. <i>Biophysical Journal</i> , 2017, 112, 234-249.	0.2	34
142	Terbutryn resistance in a purple bacterium can induce sensitivity toward the plant herbicide DCMU. <i>FEBS Letters</i> , 1989, 256, 192-194.	1.3	33
143	Formation and flash-dependent oscillation of the S2-state multiline EPR signal in an oxygen-evolving Photosystem-II preparation lacking the three extrinsic proteins in the oxygen-evolving system. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1987, 890, 32-38.	0.5	32
144	Characterisation of the low-fluorescent (LF1) mutant of <i>Scenedesmus</i> by EPR. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1988, 932, 171-176.	0.5	32

#	ARTICLE	IF	CITATIONS
145	Chloride-Depletion Effects in the Calcium-Deficient Oxygen-Evolving Complex of Photosystem II. <i>Biochemistry</i> , 1994, 33, 12998-13004.	1.2	32
146	The 18 kDa Cytochrome c553 from <i>Heliobacterium gestii</i> : A Gene Sequence and Characterization of the Mature Protein. <i>Biochemistry</i> , 1998, 37, 9001-9008.	1.2	32
147	The high potential semiquinone-iron signal in <i>Rhodospseudomonas viridis</i> is the specific quinone secondary electron acceptor in the photosynthetic reaction centre. <i>FEBS Letters</i> , 1979, 104, 227-230.	1.3	31
148	EPR and ESEEM study of the plastoquinone anion radical QA ⁻ . in photosystem II treated at high pH. <i>Chemical Physics Letters</i> , 1997, 270, 564-572.	1.2	31
149	<i>Streptomyces thermoautotrophicus</i> does not fix nitrogen. <i>Scientific Reports</i> , 2016, 6, 20086.	1.6	31
150	Effects of formate binding on the quinone-iron electron acceptor complex of photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 216-226.	0.5	30
151	Side-Path Electron Donors: Cytochrome b559, Chlorophyll Z and β -Carotene. , 2005, , 347-365.		30
152	Thermoluminescence measurements on chloride-depleted and calcium-depleted photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998, 1364, 46-54.	0.5	29
153	Intramolecular light induced activation of a Salen ⁻ Mn(III) complex by a ruthenium photosensitizer. <i>Chemical Communications</i> , 2010, 46, 7605.	2.2	29
154	Carotenoid Oxidation in Photosystem II: A 1D- and 2D-Electron Spin Echo Envelope Modulation Study. <i>Journal of the American Chemical Society</i> , 2000, 122, 400-401.	6.6	28
155	Bicarbonate-Mediated CO ₂ Formation on Both Sides of Photosystem II. <i>Biochemistry</i> , 2020, 59, 2442-2449.	1.2	28
156	Evidence from thermoluminescence for bicarbonate action on the recombination reactions involving the secondary quinone electron acceptor of Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 766, 416-423.	0.5	27
157	The reaction-centre associated cytochrome subunit of the purple bacterium <i>Rhodocyclus gelatinosus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1992, 1100, 49-57.	0.5	27
158	Identification of the Q _Y Excitation of the Primary Electron Acceptor of Photosystem II: CD Determination of Its Coupling Environment. <i>Journal of Physical Chemistry B</i> , 2009, 113, 12364-12374.	1.2	27
159	Semiquinone-iron Complex of Photosystem II: EPR Signals Assigned to the Low-Field Edge of the Ground State Doublet of Q _A ⁻ Fe ²⁺ and Q _B ⁻ Fe ²⁺ . <i>Biochemistry</i> , 2011, 50, 6012-6021.	1.2	27
160	Calcium Binding to the Photosystem II Subunit CP29. <i>Journal of Biological Chemistry</i> , 2000, 275, 12781-12788.	1.6	26
161	The reaction center associated tetraheme cytochrome subunit from <i>Chromatium vinosum</i> revisited: A reexamination of its EPR properties. <i>Biochemistry</i> , 1993, 32, 8871-8879.	1.2	25
162	High-Field EPR Study of Carotenoid ⁺ and the Angular Orientation of Chlorophyll ⁺ in Photosystem II. <i>Journal of Physical Chemistry B</i> , 2000, 104, 10960-10963.	1.2	25

#	ARTICLE	IF	CITATIONS
163	Femtosecond infrared spectroscopy of chlorophyll f-containing photosystem I. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1224-1234.	1.3	25
164	Differential extraction and structural specificity of specialized ubiquinone molecules in secondary electron transfer in chromatophores from <i>Rhodospseudomonas sphaeroides</i> , Ga. <i>Archives of Biochemistry and Biophysics</i> , 1982, 216, 566-580.	1.4	24
165	Inhibition of Photosystem II activity by saturating single turnover flashes in calcium-depleted and active Photosystem II. <i>Photosynthesis Research</i> , 2000, 63, 209-216.	1.6	24
166	High and low potential forms of the QA quinone electron acceptor in Photosystem II of <i>Thermosynechococcus elongatus</i> and spinach. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2011, 104, 154-157.	1.7	24
167	The iron-quinone acceptor complex in <i>Rhodospirillum rubrum</i> chromatophores studied by EPR. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1987, 890, 169-178.	0.5	23
168	The inhibition of quinol oxidation by stigmatellin is similar in cytochrome bc1 and b6f complexes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1989, 974, 223-226.	0.5	23
169	One- and Two-Dimensional Electron Spin Echo Envelope Modulation Study of the Intermediate Electron Acceptor Pheophytin in ¹⁴ N- and ¹⁵ N-Labeled Photosystem II. <i>Journal of the American Chemical Society</i> , 1997, 119, 4471-4480.	6.6	23
170	Manganese-quinone interactions in the electron acceptor region of bacterial photosynthetic reaction centres. <i>FEBS Letters</i> , 1985, 182, 151-157.	1.3	22
171	Spin ² Lattice Relaxation of the Pheophytin, Pheo ⁻ , Radical of Photosystem II. <i>Biochemistry</i> , 1996, 35, 11239-11246.	1.2	22
172	Photosynthetic Constraints on Fuel from Microbes. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 36.	2.0	22
173	Glycolate Induces Redox Tuning Of Photosystem II in Vivo: Study of a Photorespiration Mutant. <i>Plant Physiology</i> , 2018, 177, 1277-1285.	2.3	22
174	A high potential semiquinone-iron type EPR signal in <i>Rhodospseudomonas viridis</i> . <i>FEBS Letters</i> , 1979, 100, 305-308.	1.3	21
175	The Role of the Extrinsic 33 kDa Protein in Ca ²⁺ Binding in Photosystem II. <i>Biochemistry</i> , 1996, 35, 12104-12110.	1.2	21
176	D1 protein variants in Photosystem II from <i>Thermosynechococcus elongatus</i> studied by low temperature optical spectroscopy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 11-19.	0.5	21
177	Light-Driven Activation of the [H ₂ O(terpy)Mn ^{III}]-[O ₂] ^{1/4} â€“(O ₂)â€“Mn ^{IV} (terpy)OH ₂] ₇ Unit in a Chromophoreâ€“Catalyst Complex. <i>Chemistry - an Asian Journal</i> , 2011, 6, 1335-1339.		21
178	Effects of trypsin upon EPR signals arising from components of the donor side of Photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1986, 851, 424-430.	0.5	20
179	Mimicking photosynthesis, but just the best bits. <i>Nature</i> , 2008, 453, 449-449.	13.7	20
180	A low-potential terminal oxidase associated with the iron-only nitrogenase from the nitrogen-fixing bacterium <i>Azotobacter vinelandii</i> . <i>Journal of Biological Chemistry</i> , 2019, 294, 9367-9376.	1.6	20

#	ARTICLE	IF	CITATIONS
181	The [2Fe-2S] centre of the cytochrome bc complex in <i>Bacillus firmus</i> OF4 in EPR: an example of a menaquinol-oxidizing Rieske centre. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1993, 1183, 263-268.	0.5	19
182	Spin ² Lattice Relaxation of the Phyllosemiquinone Radical of Photosystem II. <i>Biochemistry</i> , 1998, 37, 3329-3336.	1.2	19
183	The primary donor of far-red photosystem II: ChlD1 or PD2?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2020, 1861, 148248.	0.5	19
184	Oxygenic Photoreactivity in Photosystem II Studied by Rotating Ring Disk Electrochemistry. <i>Journal of the American Chemical Society</i> , 2018, 140, 17923-17931.	6.6	18
185	EPR evidence for an acceptor functioning in photosystem II when the pheophytin acceptor is reduced. <i>Biochemical and Biophysical Research Communications</i> , 1981, 102, 1065-1070.	1.0	17
186	Membrane-bound cytochromes in <i>Chloroflexus aurantiacus</i> studied by EPR. <i>FEBS Journal</i> , 1991, 199, 317-323.	0.2	17
187	Location of the calcium binding site in Photosystem II: A Mn ²⁺ substitution study. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1996, 1277, 127-134.	0.5	17
188	Semiquinone in Molecularly Imprinted Hybrid Amino Acid ⁻ /SiO ₂ /Biomimetic Materials. An Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2008, 112, 12841-12852.	1.5	17
189	A High Redox Potential Form of Cytochrome c550 in Photosystem II from <i>Thermosynechococcus elongatus</i> . <i>Journal of Biological Chemistry</i> , 2011, 286, 5985-5994.	1.6	16
190	On the role of the N-terminus of the extrinsic 33 kDa protein of Photosystem II. <i>Plant Molecular Biology</i> , 1996, 31, 183-188.	2.0	15
191	Femtosecond visible transient absorption spectroscopy of chlorophyll- <i>a</i> -containing photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 23158-23164.	3.3	15
192	Bicarbonate-controlled reduction of oxygen by the Q _A semiquinone in Photosystem II in membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	14
193	Radical pair state in photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1982, 79, 7283-7287.	3.3	13
194	Membrane-Bound c-Type Cytochromes in <i>Heliobacillus mobilis</i> . Characterisation by EPR and Optical Spectroscopy in Membranes and Detergent-Solubilised Material. <i>FEBS Journal</i> , 1996, 242, 695-702.	0.2	13
195	Reaction centre photochemistry in cyanide-treated photosystem II. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998, 1365, 354-362.	0.5	13
196	Herbicide-Induced Changes in Charge Recombination and Redox Potential of QA in the T4 Mutant of <i>Blastochloris viridis</i> . <i>Biochemistry</i> , 2005, 44, 5931-5939.	1.2	13
197	New insights on ChlD1 function in Photosystem II from site-directed mutants of D1/T179 in <i>Thermosynechococcus elongatus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 297-309.	0.5	13
198	Carbon Nanotube ⁻ Acridine Nanohybrids: Spectroscopic Characterization of Photoinduced Electron Transfer. <i>Chemistry - A European Journal</i> , 2009, 15, 3882-3888.	1.7	12

#	ARTICLE	IF	CITATIONS
199	Orientation selection in photosynthetic PS I multilayers: structural investigation of the charge separated state P700+A1 ⁺ by high-field/high-frequency time-resolved EPR at 3.4 T/95 GHz. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1556, 81-88.	0.5	11
200	The involvement of Ca ²⁺ in the Ca ²⁺ -effect on Photosystem-II oxygen evolution. <i>Photosynthesis Research</i> , 1992, 32, 207-209.	1.6	10
201	The tetrahaem cytochromes associated with photosynthetic reaction centres: a model system for intraprotein redox centre interactions. <i>Biochemical Society Transactions</i> , 1994, 22, 694-699.	1.6	10
202	Quantum efficiency distributions of photo-induced side-pathway donor oxidation at cryogenic temperature in photosystem II. <i>Photosynthesis Research</i> , 2008, 98, 199-206.	1.6	10
203	Comparative spectroscopy of photosystem II and purple bacterial reaction centres. <i>Biochemical Society Transactions</i> , 1993, 21, 986-991.	1.6	9
204	Does the formation of the S3-state in Ca ²⁺ -depleted Photosystem II correspond to an oxidation of Tyrosine Z detectable by cw-EPR at room temperature?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1995, 1230, 195-201.	0.5	9
205	On the assignment of PSHB in D1/D2/ cytb559 reaction centers. <i>Physics Procedia</i> , 2010, 3, 1601-1605.	1.2	9
206	Changes in supramolecular organization of cyanobacterial thylakoid membrane complexes in response to far-red light photoacclimation. <i>Science Advances</i> , 2022, 8, eabj4437.	4.7	9
207	Evidence for resistance of the microenvironment of the primary plastoquinone acceptor (QA ^{•-} \hat{A} Fe ²⁺) to mild trypsinization in PS II particles. <i>FEBS Letters</i> , 1985, 185, 243-247.	1.3	7
208	Effect of pH on the semiquinone radical QA ^{•-} in CN-treated photosystem II: study by hyperfine sublevel correlation spectroscopy. <i>Journal of Inorganic Biochemistry</i> , 2000, 79, 339-345.	1.5	7
209	Horst Tobias Witt (1922–2007). <i>Nature</i> , 2007, 448, 425-425.	13.7	7
210	Four young research investigators were honored at the 2006 Gordon Research Conference on Photosynthesis. <i>Photosynthesis Research</i> , 2007, 92, 137-138.	1.6	7
211	Introduction. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008, 363, 1125-1128.	1.8	7
212	ESE relaxation measurements in photosystem II The influence of the reaction center non-heme iron on the spin-lattice relaxation of Tyr D.. <i>FEBS Letters</i> , 1991, 292, 279-283.	1.3	6
213	Structural and Functional Consequences of a Glu L212 to Val Mutation in the QB Binding Site of the Photosynthetic Reaction Center of <i>Rhodospseudomonas viridis</i> . <i>Biochemistry</i> , 1994, 33, 11355-11363.	1.2	5
214	A single mutation in the M-subunit of <i>Rhodospirillum rubrum</i> confers herbicide resistance. <i>FEBS Letters</i> , 1997, 409, 343-346.	1.3	3
215	Site-Directed Mutations Near the L-Subunit D-Helix of the Purple Bacterial Reaction Center: A Partial Model for the Primary Donor of Photosystem II. <i>Biochemistry</i> , 1997, 36, 2178-2187.	1.2	2
216	Proton-coupled electron transfer from an interfacial phenol monolayer. <i>Journal of Electroanalytical Chemistry</i> , 2020, 859, 113856.	1.9	2

#	ARTICLE	IF	CITATIONS
217	EPR Signal II in Photosystem II : Redox and Paramagnetic Interactions with the O ₂ Evolving Enzyme. , 1987, , 541-547.		2
218	The Involvement of H ₂ O ₂ Produced by Photosystem II in Photoinhibition. , 1998, , 2135-2138.		2
219	Photosystem I: both sides now. Trends in Biochemical Sciences, 2001, 26, 411.	3.7	0
220	Jean-Michel Neumann. Trends in Biochemical Sciences, 2008, 33, 297.	3.7	0
221	Photosynthetic Reaction Center Performance under Physiologically Relevant Energetic Changes. Biophysical Journal, 2013, 104, 489a.	0.2	0
222	What Is the Origin of the Highly Dispersive Quantum Efficiencies for Secondary Donor Oxidation at Low Temperature in Photosystem II. , 2008, , 85-88.		0