

Stefan Weber

List of Publications by Year in descending order

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91
papers

3,920
citations

109321

35
h-index

133252

59
g-index

97
all docs

97
docs citations

97
times ranked

3206
citing authors

#	ARTICLE	IF	CITATIONS
1	Martini 3 Model of Cellulose Microfibrils: On the Route to Capture Large Conformational Changes of Polysaccharides. <i>Molecules</i> , 2022, 27, 976.	3.8	7
2	Completing the Picture: Determination of ¹³ C Hyperfine Coupling Constants of Flavin Semiquinone Radicals by Photochemically Induced Dynamic Nuclear Polarization Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5160-5167.	4.6	8
3	About defect phenomena in ZnO nanocrystals. <i>Nanoscale</i> , 2021, 13, 9160-9171.	5.6	73
4	Metabolic alterations in meningioma reflect the clinical course. <i>BMC Cancer</i> , 2021, 21, 211.	2.6	5
5	pH-dependence of signaling-state formation in <i>Drosophila</i> cryptochrome. <i>Archives of Biochemistry and Biophysics</i> , 2021, 700, 108787.	3.0	5
6	Non-classical disproportionation revealed by photo-chemically induced dynamic nuclear polarization NMR. <i>Magnetic Resonance</i> , 2021, 2, 281-290.	1.9	10
7	Magnetic sensitivity of cryptochrome 4 from a migratory songbird. <i>Nature</i> , 2021, 594, 535-540.	27.8	171
8	<i>Yersinia pseudotuberculosis</i> cytotoxic necrotizing factor interacts with glycosaminoglycans. <i>FASEB Journal</i> , 2021, 35, e21647.	0.5	3
9	Orientations and water dynamics of photoinduced secondary charge-separated states for magnetoreception by cryptochrome. <i>Communications Chemistry</i> , 2021, 4, .	4.5	6
10	Selective ¹³ C labelling reveals the electronic structure of flavocoenzyme radicals. <i>Scientific Reports</i> , 2021, 11, 18234.	3.3	2
11	Distance measurements in the FOF1-ATP synthase from <i>E. coli</i> using smFRET and PELDOR spectroscopy. <i>European Biophysics Journal</i> , 2020, 49, 1-10.	2.2	4
12	Frontispiz: Synthesis and Application of a Perfluorinated Ammoniumyl Radical Cation as a Very Strong Deelectronator. <i>Angewandte Chemie</i> , 2020, 132, .	2.0	0
13	The biophysical, molecular, and anatomical landscape of pigeon CRY4: A candidate light-based quantal magnetosensor. <i>Science Advances</i> , 2020, 6, eabb9110.	10.3	50
14	pH Tuning of Water-Soluble Arylazopyrazole Photoswitches. <i>Chemistry - A European Journal</i> , 2020, 26, 13203-13212.	3.3	27
15	Long-Lived Charge-Transfer State Induced by Spin-Orbit Charge Transfer Intersystem Crossing (SOCT-ISC) in a Compact Spiro Electron Donor/Acceptor Dyad. <i>Angewandte Chemie</i> , 2020, 132, 11688-11696.	2.0	22
16	Intersystem crossing <i>via</i> charge recombination in a perylene-naphthalimide compact electron donor/acceptor dyad. <i>Journal of Materials Chemistry C</i> , 2020, 8, 8305-8319.	5.5	28
17	Synthesis and Application of a Perfluorinated Ammoniumyl Radical Cation as a Very Strong Deelectronator. <i>Angewandte Chemie</i> , 2020, 132, 9540-9546.	2.0	15
18	Frontispiece: Synthesis and Application of a Perfluorinated Ammoniumyl Radical Cation as a Very Strong Deelectronator. <i>Angewandte Chemie - International Edition</i> , 2020, 59, .	13.8	0

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19	Synthesis and Application of a Perfluorinated Ammoniumyl Radical Cation as a Very Strong Deelectronator. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9453-9459.	13.8	34
20	Coupled Methyl Group Rotation in FMN Radicals Revealed by Selective Deuterium Labeling. <i>Journal of Physical Chemistry B</i> , 2020, 124, 1678-1690.	2.6	2
21	Long-Lived Charge-Transfer State Induced by Spin-Orbit Charge Transfer Intersystem Crossing (SOCT-ISC) in a Compact Spiro Electron Donor/Acceptor Dyad. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 11591-11599.	13.8	74
22	Photoactivation of <i>Drosophila melanogaster</i> cryptochrome through sequential conformational transitions. <i>Science Advances</i> , 2019, 5, eaaw1531.	10.3	30
23	Molecular Physics. <i>Molecular Physics</i> , 2019, 117, 2593-2593.	1.7	2
24	Application of commercially available fluorophores as triplet spin probes in EPR spectroscopy. <i>Molecular Physics</i> , 2019, 117, 2688-2699.	1.7	6
25	EPR spectroscopy on flavin radicals in flavoproteins. <i>Methods in Enzymology</i> , 2019, 620, 251-275.	1.0	10
26	Electronic Coupling and Spin-Orbit Charge-Transfer Intersystem Crossing in Phenothiazine-Perylene Compact Electron Donor/Acceptor Dyads. <i>Journal of Physical Chemistry C</i> , 2019, 123, 7010-7024.	3.1	47
27	Influence of the cofactor structure on the photophysical processes initiating signal transduction in a phototropin-derived LOV domain. <i>Journal of Chemical Physics</i> , 2019, 151, 235102.	3.0	4
28	Methyl groups matter: Photo-CIDNP characterizations of the semiquinone radicals of FMN and demethylated FMN analogs. <i>Journal of Chemical Physics</i> , 2019, 151, 235103.	3.0	14
29	Microenvironment-Derived Regulation of HIF Signaling Drives Transcriptional Heterogeneity in Glioblastoma Multiforme. <i>Molecular Cancer Research</i> , 2018, 16, 655-668.	3.4	21
30	Long-Lived Hydrated FMN Radicals: EPR Characterization and Implications for Catalytic Variability in Flavoproteins. <i>Journal of the American Chemical Society</i> , 2018, 140, 16521-16527.	13.7	19
31	Spin-Orbit Charge Recombination Intersystem Crossing in Phenothiazine-Anthracene Compact Dyads: Effect of Molecular Conformation on Electronic Coupling, Electronic Transitions, and Electron Spin Polarizations of the Triplet States. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27850-27865.	3.1	76
32	Global analysis of complex PELDOR time traces. <i>Journal of Magnetic Resonance</i> , 2018, 295, 17-26.	2.1	11
33	Direct Evidence of an Excited-State Triplet Species upon Photoactivation of the Chlorophyll Precursor Protochlorophyllide. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1219-1223.	4.6	7
34	Millitesla magnetic field effects on the photocycle of an animal cryptochrome. <i>Scientific Reports</i> , 2017, 7, 42228.	3.3	76
35	Determination of Radical-Radical Distances in Light-Active Proteins and Their Implication for Biological Magnetoreception. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8550-8554.	13.8	32
36	Toward an Understanding of Thin-Film Transistor Performance in Solution-Processed Amorphous Zinc Tin Oxide (ZTO) Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 21328-21337.	8.0	33

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37	Intersubunit distances in full-length, dimeric, bacterial phytochrome Agp1, as measured by pulsed electron-electron double resonance (PELDOR) between different spin label positions, remain unchanged upon photoconversion. <i>Journal of Biological Chemistry</i> , 2017, 292, 7598-7606.	3.4	13
38	Bestimmung des Radikal-Radikal-Abstands in lichtaktiven Proteinen im angeregten Zustand und dessen Bedeutung für die biologische Magnetorezeption. <i>Angewandte Chemie</i> , 2017, 129, 8670-8674.	2.0	0
39	A 1-phytase type III effector interferes with plant hormone signaling. <i>Nature Communications</i> , 2017, 8, 2159.	12.8	40
40	The integrative metabolomic-transcriptomic landscape of glioblastome multiforme. <i>Oncotarget</i> , 2017, 8, 49178-49190.	1.8	22
41	Micro and nano patternable magnetic carbon. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	14
42	Charge transfer and surface defect healing within ZnO nanoparticle decorated graphene hybrid materials. <i>Nanoscale</i> , 2016, 8, 9682-9687.	5.6	74
43	Extended Electron-Transfer in Animal Cryptochromes Mediated by a Tetrad of Aromatic Amino Acids. <i>Biophysical Journal</i> , 2016, 111, 301-311.	0.5	77
44	The Effect of Low Pressure Plasma Polymerization Modes on the Properties of the Deposited Plasma Polymers. <i>Plasma Processes and Polymers</i> , 2016, 13, 744-751.	3.0	2
45	Ordering of PCDTBT Revealed by Time-Resolved Electron Paramagnetic Resonance Spectroscopy of Its Triplet Excitons. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7707-7710.	13.8	36
46	How can EPR spectroscopy help to unravel molecular mechanisms of flavin-dependent photoreceptors?. <i>Frontiers in Molecular Biosciences</i> , 2015, 2, 49.	3.5	8
47	Structural basis of enzymatic benzene ring reduction. <i>Nature Chemical Biology</i> , 2015, 11, 586-591.	8.0	52
48	Spectroscopic characterization of radicals and radical pairs in fruit fly cryptochrome – protonated and nonprotonated flavin radical states. <i>FEBS Journal</i> , 2015, 282, 3175-3189.	4.7	37
49	One Protein, Two Chromophores: Comparative Spectroscopic Characterization of 6,7-Dimethyl-8-ribityllumazine and Riboflavin Bound to Lumazine Protein. <i>Journal of Physical Chemistry B</i> , 2014, 118, 13092-13105.	2.6	15
50	Comparative electron paramagnetic resonance investigation of reduced graphene oxide and carbon nanotubes with different chemical functionalities for quantum dot attachment. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	80
51	Detecting a New Source for Photochemically Induced Dynamic Nuclear Polarization in the LOV2 Domain of Phototropin by Magnetic-Field Dependent ¹³ C NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2014, 118, 11622-11632.	2.6	21
52	Variable Electron Transfer Pathways in an Amphibian Cryptochrome. <i>Journal of Biological Chemistry</i> , 2013, 288, 9249-9260.	3.4	52
53	Magnetically sensitive light-induced reactions in cryptochrome are consistent with its proposed role as a magnetoreceptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 4774-4779.	7.1	290
54	The road not taken: a theoretical view of an unexpected cryptochrome charge transfer path. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11518.	2.8	17

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55	Vibrational Spectra of the Ground and the Singlet Excited $\tilde{\pi}\pi^*$ State of 6,7-Dimethyl-8-ribityllumazine. <i>Journal of Physical Chemistry B</i> , 2011, 115, 3689-3697.	2.6	7
56	Following Radical Pair Reactions in Solution: A Step Change in Sensitivity Using Cavity Ring-Down Detection. <i>Journal of the American Chemical Society</i> , 2011, 133, 17807-17815.	13.7	29
57	Light-generated Paramagnetic Intermediates in BLUF Domains. <i>Photochemistry and Photobiology</i> , 2011, 87, 574-583.	2.5	12
58	Unexpected Electron Transfer in Cryptochrome Identified by Time-resolved EPR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 12647-12651.	13.8	43
59	Radicals in Flavoproteins. <i>Topics in Current Chemistry</i> , 2011, 321, 41-65.	4.0	17
60	Surface passivation of crystalline silicon by plasma-enhanced chemical vapor deposition double layers of silicon-rich silicon oxynitride and silicon nitride. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	54
61	The Electronic State of Flavoproteins: Investigations with Proton Electron Nuclear Double Resonance. <i>Applied Magnetic Resonance</i> , 2010, 37, 339-352.	1.2	26
62	Light-induced activation of class II cyclobutane pyrimidine dimer photolyases. <i>DNA Repair</i> , 2010, 9, 495-505.	2.8	29
63	Origin of Light-Induced Spin-Correlated Radical Pairs in Cryptochrome. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14745-14754.	2.6	57
64	Hindered Rotation of a Cofactor Methyl Group as a Probe for Protein-Cofactor Interaction. <i>Journal of the American Chemical Society</i> , 2010, 132, 8935-8944.	13.7	33
65	Direct Observation of a Photoinduced Radical Pair in a Cryptochrome Blue-Light Photoreceptor. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 404-407.	13.8	127
66	New roles of flavoproteins in molecular cell biology: Blue-light active flavoproteins studied by electron paramagnetic resonance. <i>FEBS Journal</i> , 2009, 276, 4290-4303.	4.7	23
67	Tryptophan ^{13}C nuclear-spin polarization generated by intraprotein electron transfer in a LOV2 domain of the blue-light receptor phototropin. <i>Biochemical Society Transactions</i> , 2009, 37, 382-386.	3.4	20
68	G-Tensors of the Flavin Adenine Dinucleotide Radicals in Glucose Oxidase: A Comparative Multifrequency Electron Paramagnetic Resonance and Electron Nuclear Double Resonance Study. <i>Journal of Physical Chemistry B</i> , 2008, 112, 3568-3574.	2.6	35
69	Natural Abundance Solution ^{13}C NMR Studies of a Phototropin with Photoinduced Polarization. <i>Journal of the American Chemical Society</i> , 2008, 130, 13544-13545.	13.7	25
70	Magnetic-field effect on the photoactivation reaction of <i>Escherichia coli</i> DNA photolyase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 14395-14399.	7.1	113
71	Electron Nuclear Double Resonance Differentiates Complementary Roles for Active Site Histidines in (6-4) Photolyase. <i>Journal of Biological Chemistry</i> , 2007, 282, 4738-4747.	3.4	80
72	Light-induced reactions of <i>Escherichia coli</i> DNA photolyase monitored by Fourier transform infrared spectroscopy. <i>FEBS Journal</i> , 2005, 272, 1855-1866.	4.7	47

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73	Probing the N(5)H Bond of the Isoalloxazine Moiety of Flavin Radicals by X- and W-Band Pulsed Electron-Nuclear Double Resonance. <i>ChemPhysChem</i> , 2005, 6, 292-299.	2.1	37
74	Determination of the g-matrix orientation in flavin radicals by high-field/high-frequency electron-nuclear double resonance. <i>Magnetic Resonance in Chemistry</i> , 2005, 43, S96-S102.	1.9	22
75	Photochemically Induced Dynamic Nuclear Polarization in a C450A Mutant of the LOV2 Domain of the Avena sativa Blue-Light Receptor Phototropin. <i>Journal of the American Chemical Society</i> , 2005, 127, 17245-17252.	13.7	48
76	Unambiguous Determination of the g-Matrix Orientation in a Neutral Flavin Radical by Pulsed Electron Nuclear Double Resonance at 94 GHz. <i>Journal of the American Chemical Society</i> , 2005, 127, 10780-10781.	13.7	24
77	Light-driven enzymatic catalysis of DNA repair: a review of recent biophysical studies on photolyase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1707, 1-23.	1.0	309
78	Transient radical pairs studied by time-resolved EPR. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1707, 117-126.	1.0	66
79	On the Reaction Mechanism of Adduct Formation in LOV Domains of the Plant Blue-Light Receptor Phototropin. <i>Journal of the American Chemical Society</i> , 2004, 126, 11067-11076.	13.7	127
80	The Photoinduced Triplet of Flavins and Its Protonation States. <i>Journal of the American Chemical Society</i> , 2004, 126, 11393-11399.	13.7	58
81	Characterization of a Flavin Radical Product in a C57M Mutant of a LOV1 Domain by Electron Paramagnetic Resonance. <i>Biochemistry</i> , 2003, 42, 8506-8512.	2.5	50
82	Exploring Charge Migration in Light-Harvesting Complexes Using Electron Paramagnetic Resonance Line Narrowing. <i>Journal of Physical Chemistry B</i> , 2003, 107, 2127-2138.	2.6	22
83	Blue Light Perception in Plants. <i>Journal of Biological Chemistry</i> , 2003, 278, 10973-10982.	3.4	101
84	Photoactivation of the flavin cofactor in <i>Xenopus laevis</i> (6-4) photolyase: Observation of a transient tyrosyl radical by time-resolved electron paramagnetic resonance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 1319-1322.	7.1	78
85	g-Tensor of the Neutral Flavin Radical Cofactor of DNA Photolyase Revealed by 360-GHz Electron Paramagnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2002, 106, 8885-8890.	2.6	53
86	Substrate Binding to DNA Photolyase Studied by Electron Paramagnetic Resonance Spectroscopy. <i>Biophysical Journal</i> , 2001, 81, 1195-1204.	0.5	34
87	The Electronic Structure of the Flavin Cofactor in DNA Photolyase. <i>Journal of the American Chemical Society</i> , 2001, 123, 3790-3798.	13.7	90
88	EPR, ENDOR, and TRIPLE Resonance Spectroscopy on the Neutral Flavin Radical in <i>Escherichia coli</i> DNA Photolyase. <i>Biochemistry</i> , 1999, 38, 16740-16748.	2.5	73
89	Transient EPR of Light-Induced Spin-Correlated Radical Pairs: Manifestation of Zero Quantum Coherence. <i>The Journal of Physical Chemistry</i> , 1994, 98, 2706-2712.	2.9	87
90	EPR of radical intermediates in flavoenzymes. <i>Electron Paramagnetic Resonance</i> , 0, , 222-253.	0.2	9

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91	OOP-ESEEM Spectroscopy: Accuracies of Distances of Spin-Correlated Radical Pairs in Biomolecules. Frontiers in Molecular Biosciences, 0, 9, .	3.5	4