Christiane R Timmel

List of Publications by Year
in descending order

75	3,966	126907 33	123424 61
papers	citations	h-index	g-index

76	76	76	3265
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chemical compass model of avian magnetoreception. Nature, 2008, 453, 387-390.	27.8	422
2	Magnetically sensitive light-induced reactions in cryptochrome are consistent with its proposed role as a magnetoreceptor. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4774-4779.	7.1	290
3	Magnetic Compass of Birds Is Based on a Molecule with Optimal Directional Sensitivity. Biophysical Journal, 2009, 96, 3451-3457.	0.5	271
4	Magnetic sensitivity of cryptochrome 4 from a migratory songbird. Nature, 2021, 594, 535-540.	27.8	171
5	Chemical Magnetoreception: Bird Cryptochrome 1a Is Excited by Blue Light and Forms Long-Lived Radical-Pairs. PLoS ONE, 2007, 2, e1106.	2.5	152
6	Benchmark Test and Guidelines for DEER/PELDOR Experiments on Nitroxide-Labeled Biomolecules. Journal of the American Chemical Society, 2021, 143, 17875-17890.	13.7	124
7	A study of spin chemistry in weak magnetic fields. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 2573-2589.	3.4	114
8	Magnetic-field effect on the photoactivation reaction of <i>Escherichia coli</i> DNA photolyase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 14395-14399.	7.1	113
9	Radio Frequency Magnetic Field Effects on a Radical Recombination Reaction:â€‰ A Diagnostic Test for the Radical Pair Mechanism. Journal of the American Chemical Society, 2004, 126, 8102-8103.	13.7	109
10	Engineering coherent interactions in molecular nanomagnet dimers. Npj Quantum Information, 2015, 1, .	6.7	101
11	Delocalisation of photoexcited triplet states probed by transient EPR and hyperfine spectroscopy. Journal of Magnetic Resonance, 2017, 280, 103-116.	2.1	101
12	Structural model for the protein-translocating element of the twin-arginine transport system. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1092-101.	7.1	99
13	Crystal Structure of the Bacillus subtilis Phosphodiesterase PhoD Reveals an Iron and Calcium-containing Active Site. Journal of Biological Chemistry, 2014, 289, 30889-30899.	3.4	96
14	Possible involvement of superoxide and dioxygen with cryptochrome in avian magnetoreception: Origin of Zeeman resonances observed by in vivo EPR spectroscopy. Chemical Physics Letters, 2009, 480, 118-122.	2.6	94
15	Determination of Radical Re-encounter Probability Distributions from Magnetic Field Effects on Reaction Yields. Journal of the American Chemical Society, 2007, 129, 6746-6755.	13.7	85
16	The Short-Lived Signaling State of the Photoactive Yellow Protein Photoreceptor Revealed by Combined Structural Probes. Journal of the American Chemical Society, 2011, 133, 9395-9404.	13.7	83
17	Chemical amplification of magnetic field effects relevant to avian magnetoreception. Nature Chemistry, 2016, 8, 384-391.	13.6	79
18	Millitesla magnetic field effects on the photocycle of an animal cryptochrome. Scientific Reports, 2017, 7, 42228.	3.3	76

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19	Triplet State Delocalization in a Conjugated Porphyrin Dimer Probed by Transient Electron Paramagnetic Resonance Techniques. Journal of the American Chemical Society, 2015, 137, 6670-6679.	13.7	74
20	Effect of magnetic fields on cryptochrome-dependent responses in <i>Arabidopsis thaliana</i>. Journal of the Royal Society Interface, 2009, 6, 1193-1205.	3.4	73
21	Probing Flexibility in Porphyrin-Based Molecular Wires Using Double Electron Electron Resonance. Journal of the American Chemical Society, 2009, 131, 13852-13859.	13.7	70
22	Electronic Delocalization in the Radical Cations of Porphyrin Oligomer Molecular Wires. Journal of the American Chemical Society, 2017, 139, 10461-10471.	13.7	67
23	The Characterization of Weak Proteinâ€“Protein Interactions: Evidence from DEER for the Trimerization of a von Willebrand Factor A Domain in Solution. Angewandte Chemie - International Edition, 2006, 45, 1058-1061.	13.8	63
24	Transient EPR Reveals Triplet State Delocalization in a Series of Cyclic and Linear Ï€-Conjugated Porphyrin Oligomers. Journal of the American Chemical Society, 2015, 137, 8284-8293.	13.7	62
25	Spectroscopic and Crystal Field Consequences of Fluoride Binding by [Ybâ‹…DTMA]³⁺ in Aqueous Solution. Angewandte Chemie - International Edition, 2015, 54, 10783-10786.	13.8	52
26	Magnetic field effects in flavoproteins and related systems. Interface Focus, 2013, 3, 20130037.	3.0	49
27	Exploiting orientation-selective DEER: determining molecular structure in systems containing Cu(<scp>ii</scp>) centres. Physical Chemistry Chemical Physics, 2016, 18, 5981-5994.	2.8	48
28	Magnetic field effect on singlet oxygen production in a biochemical system. Chemical Communications, 2005, , 174.	4.1	43
29	Chemical compass behaviour at microtesla magnetic fields strengthens the radical pair hypothesis of avian magnetoreception. Nature Communications, 2019, 10, 3707.	12.8	38
30	On the Importance of Electronic Symmetry for Triplet State Delocalization. Journal of the American Chemical Society, 2017, 139, 5301-5304.	13.7	37
31	Low-Field Optically Detected EPR Spectroscopy of Transient Photoinduced Radical Pairs. Journal of Physical Chemistry A, 2005, 109, 5035-5041.	2.5	36
32	Constructive quantum interference in a bis-copper six-porphyrin nanoring. Nature Communications, 2017, 8, 14842.	12.8	36
33	Spin-selective recombination kinetics of a model chemical magnetoreceptor. Chemical Communications, 2011, 47, 6563.	4.1	35
34	Nanorings with copper(<scp>ii</scp>) and zinc(<scp>ii</scp>) centers: forcing copper porphyrins to bind axial ligands in heterometallated oligomers. Chemical Science, 2016, 7, 6961-6968.	7.4	33
35	Following Radical Pair Reactions in Solution: A Step Change in Sensitivity Using Cavity Ring-Down Detection. Journal of the American Chemical Society, 2011, 133, 17807-17815.	13.7	29
36	On the low magnetic field effect in radical pair reactions. Journal of Chemical Physics, 2018, 149, 034103.	3.0	27

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37	Orientation-Selective DEER Using Rigid Spin Labels, Cofactors, Metals, and Clusters. Structure and Bonding, 2013, , 283-327.	1.0	24
38	Engineering an Artificial Flavoprotein Magnetosensor. Journal of the American Chemical Society, 2016, 138, 16584-16587.	13.7	23
39	On the Influence of the Bridge on Triplet State Delocalization in Linear Porphyrin Oligomers. Journal of the American Chemical Society, 2017, 139, 12003-12008.	13.7	22
40	A Structural Model of a P450-Ferredoxin Complex from Orientation-Selective Double Electronâ€“Electron Resonance Spectroscopy. Journal of the American Chemical Society, 2018, 140, 2514-2527.	13.7	22
41	Shigella flexneri Spa15 Crystal Structure Verified in Solution by Double Electron Electron Resonance. Journal of Molecular Biology, 2011, 405, 427-435.	4.2	21
42	ELDOR-detected NMR beyond hyperfine couplings: a case study with Cu(<scp>ii</scp>)-porphyrin dimers. Physical Chemistry Chemical Physics, 2019, 21, 11676-11688.	2.8	20
43	Lightâ€Induced Pulsed EPR Dipolar Spectroscopy on a Paradigmatic Hemeprotein. ChemPhysChem, 2019, 20, 931-935.	2.1	20
44	Broadband Cavity-Enhanced Detection of Magnetic Field Effects in Chemical Models of a Cryptochrome Magnetoreceptor. Journal of Physical Chemistry B, 2014, 118, 4177-4184.	2.6	19
45	Enhanced Intersystem Crossing and Transient Electron Spin Polarization in a Photoexcited Pentaceneâ€“Trityl Radical. Journal of Physical Chemistry A, 2020, 124, 6068-6075.	2.5	19
46	Magnetic resonance imaging of a magnetic field-dependent chemical wave. Chemical Physics Letters, 2004, 397, 67-72.	2.6	18
47	Magnetic Resonance Imaging of the Manipulation of a Chemical Wave Using an Inhomogeneous Magnetic Field. Journal of the American Chemical Society, 2006, 128, 7309-7314.	13.7	18
48	Excitation wavelength-dependent EPR study on the influence of the conformation of multiporphyrin arrays on triplet state delocalization. Physical Chemistry Chemical Physics, 2016, 18, 5275-5280.	2.8	17
49	Quantifying the exchange coupling in linear copper porphyrin oligomers. Physical Chemistry Chemical Physics, 2017, 19, 16057-16061.	2.8	17
50	Spectroscopic and Crystal Field Consequences of Fluoride Binding by [Ybâ‹…DTMA]³⁺ in Aqueous Solution. Angewandte Chemie, 2015, 127, 10933-10936.	2.0	16
51	Magnetically Sensitive Radical Photochemistry of Non-natural Flavoproteins. Journal of the American Chemical Society, 2018, 140, 8705-8713.	13.7	16
52	Light-Induced Tripletâ€“Triplet Electron Resonance Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 80-85.	4.6	16
53	Protein Surface Interactions Probed by Magnetic Field Effects on Chemical Reactions. Journal of the American Chemical Society, 2010, 132, 1466-1467.	13.7	15
54	Characterisation of the paramagnetic [2Feâ€“2S]+ centre in palustrisredoxin-B (PuxB) from Rhodopseudomonas palustris CGA009: g-matrix determination and spin coupling analysis. Physical Chemistry Chemical Physics, 2012, 14, 6526.	2.8	15

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55	Sub-millitesla magnetic field effects on the recombination reaction of flavin and ascorbic acid radicals. Journal of Chemical Physics, 2016, 145, 085101.	3.0	15
56	Low field RYDMR: effects of orthogonal static and oscillating magnetic fields on radical recombination reactions. Molecular Physics, 2002, 100, 1181-1186.	1.7	14
57	Cavity enhanced detection methods for probing the dynamics of spin correlated radical pairs in solution. Molecular Physics, 2010, 108, 993-1003.	1.7	14
58	Sensitive fluorescence-based detection of magnetic field effects in photoreactions of flavins. Physical Chemistry Chemical Physics, 2015, 17, 18456-18463.	2.8	14
59	Feedback control optimisation of ESR experiments. Journal of Magnetic Resonance, 2018, 297, 9-16.	2.1	14
60	Spin-locking in low-frequency reaction yield detected magnetic resonance. Physical Chemistry Chemical Physics, 2013, 15, 16043.	2.8	13
61	EPR of Photoexcited Triplet-State Acceptor Porphyrins. Journal of Physical Chemistry C, 2021, 125, 11782-11790.	3.1	13
62	Probing a chemical compass: novel variants of low-frequency reaction yield detected magnetic resonance. Physical Chemistry Chemical Physics, 2015, 17, 3550-3559.	2.8	11
63	Orientation-Selective and Frequency-Correlated Light-Induced Pulsed Dipolar Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 3819-3826.	4.6	11
64	Exploring template-bound dinuclear copper porphyrin nanorings by EPR spectroscopy. Chemical Science, 2016, 7, 6952-6960.	7.4	9
65	Quenching Mechanisms and Diffusional Pathways in Micellar Systems Unravelled by Timeâ€Resolved Magneticâ€Field Effects. Chemistry - A European Journal, 2009, 15, 6058-6064.	3.3	8
66	HYSCORE on Photoexcited Triplet States. Applied Magnetic Resonance, 2015, 46, 389-409.	1.2	8
67	Spin Delocalization in the Radical Cations of Porphyrin Molecular Wires: A New Perspective on EPR Approaches. Journal of Physical Chemistry Letters, 2019, 10, 5708-5712.	4.6	7
68	SQUID magnetometry as a tool for following a clock reaction in solution. Dalton Transactions, 2009, , 2467.	3.3	5
69	Photogenerated triplet states in supramolecular porphyrin ladder assemblies: an EPR study. Physical Chemistry Chemical Physics, 2016, 18, 24171-24175.	2.8	4
70	Detection of magnetic field effects by confocal microscopy. Chemical Science, 2020, 11, 7772-7781.	7.4	4
71	Investigating the structure of the factor B vWF-A domain/CD55 proteinâ€"protein complex using DEER spectroscopy: successes and pitfalls. Molecular Physics, 2013, 111, 2865-2872.	1.7	2
72	Conformationally Unambiguous Spin Label for Exploring the Binding Site Topology of Multivalent Systems. Journal of Physical Chemistry Letters, 2018, 9, 6131-6135.	4.6	2

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73	Molecular Physics. Molecular Physics, 2019, 117, 2593-2593.	1.7	2
74	Magnetic Field Control of Chemical Waves. , 0, , 381-398.		0
75	Probing the orientation of porphyrin oligomers in a liquid crystal solvent â€" a triplet state electron paramagnetic resonance study. Molecular Physics, 2019, 117, 2700-2708.	1.7	0