

Olav Schiemann

List of Publications by Year in descending order

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95
papers

4,789
citations

87888

38
h-index

98798

67
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100
all docs

100
docs citations

100
times ranked

2326
citing authors

#	ARTICLE	IF	CITATIONS
1	Six-Pulse RIDME Sequence to Avoid Background Artifacts. <i>Applied Magnetic Resonance</i> , 2022, 53, 539-554.	1.2	9
2	Time-resolved structural analysis of an RNA-cleaving DNA catalyst. <i>Nature</i> , 2022, 601, 144-149.	27.8	65
3	PELDOR Measurements on Nitroxide-Labeled Oligonucleotides. <i>Methods in Molecular Biology</i> , 2022, 2439, 241-274.	0.9	0
4	Spin Labeling of Long RNAs Via Click Reaction and Enzymatic Ligation. <i>Methods in Molecular Biology</i> , 2022, 2439, 205-221.	0.9	1
5	Excitation Energy Transfer and Exchange-Mediated Quartet State Formation in Porphyrin-Triptyl Systems. <i>Chemistry - A European Journal</i> , 2021, 27, 2683-2691.	3.3	22
6	OH radical reactions with the hydrophilic component of sphingolipids. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 1639-1648.	2.8	1
7	Multi-Frequency and Single-Crystal EPR on V ⁴⁺ in W-Doped β -Vanadyl(V) Phosphate: Hyperfine Coupling- and g-Tensor Values and Orientation. <i>Applied Magnetic Resonance</i> , 2021, 52, 169-175.	1.2	2
8	Spin Labeling of RNA Using "Click" Chemistry for Coarse-grained Structure Determination via Pulsed Electron-electron Double Resonance Spectroscopy. <i>Bio-protocol</i> , 2021, 11, e4004.	0.4	1
9	OxSLIM: Synthesis of and Site-Specific Labelling with a Highly Hydrophilic Triptyl Spin Label. <i>Chemistry - A European Journal</i> , 2021, 27, 5292-5297.	3.3	36
10	Spatiotemporal Resolution of Conformational Changes in Biomolecules by Combining Pulsed Electron-Electron Double Resonance Spectroscopy with Microsecond Freeze-Hyperquenching. <i>Journal of the American Chemical Society</i> , 2021, 143, 6981-6989.	13.7	33
11	Intramolecular O-H \cdots S hydrogen bonding in threefold symmetry: Line broadening dynamics from ultrafast 2DIR-spectroscopy and ab initio calculations. <i>Journal of Chemical Physics</i> , 2021, 154, 134305.	3.0	1
12	Trendbericht: Elektronen-Paramagnetische-Resonanzspektroskopie. <i>Nachrichten Aus Der Chemie</i> , 2021, 69, 54-62.	0.0	0
13	Unraveling a Ligand-Induced Twist of a Homodimeric Enzyme by Pulsed Electron-Electron Double Resonance. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23419-23426.	13.8	10
14	Entschlüsselung der ligandeninduzierten Verdrehung eines homodimeren Enzyms mit Hilfe der gepulsten Elektron-Elektron-Doppelresonanzspektroskopie. <i>Angewandte Chemie</i> , 2021, 133, 23607.	2.0	1
15	Localization of metal ions in biomolecules by means of pulsed dipolar EPR spectroscopy. <i>Dalton Transactions</i> , 2021, 50, 808-815.	3.3	8
16	Benchmark Test and Guidelines for DEER/PELDOR Experiments on Nitroxide-Labeled Biomolecules. <i>Journal of the American Chemical Society</i> , 2021, 143, 17875-17890.	13.7	124
17	Modeling of spin-spin distance distributions for nitroxide labeled biomacromolecules. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24282-24290.	2.8	32
18	Do the P1 and P2 hairpins of the Guanidine-II riboswitch interact?. <i>Nucleic Acids Research</i> , 2020, 48, 10518-10526.	14.5	17

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19	Improved, Odorless Access to Benzo[1,2-d;4,5-d ²]-bis[1,3]dithioles and Tert-butyl Arylsulfides via C-S Cross Coupling. <i>Molecules</i> , 2020, 25, 3666.	3.8	6
20	EPR Distance Measurements on Long Non-coding RNAs Empowered by Genetic Alphabet Expansion Transcription. <i>Angewandte Chemie</i> , 2020, 132, 7965-7970.	2.0	9
21	Pulsed Dipolar EPR Spectroscopy and Metal Ions: Methodology and Biological Applications. <i>ChemPlusChem</i> , 2020, 85, 353-372.	2.8	42
22	EPR Distance Measurements on Long Non-coding RNAs Empowered by Genetic Alphabet Expansion Transcription. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7891-7896.	13.8	30
23	SLIM: A Short-Linked, Highly Redox-Stable Trityl Label for High-Sensitivity In-Cell EPR Distance Measurements. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9767-9772.	13.8	72
24	SLIM: A Short-Linked, Highly Redox-Stable Trityl Label for High-Sensitivity In-Cell EPR Distance Measurements. <i>Angewandte Chemie</i> , 2020, 132, 9854-9859.	2.0	18
25	Influence of monovalent metal ions on metal binding and catalytic activity of the 10 ²³ DNAzyme. <i>Biological Chemistry</i> , 2020, 402, 99-111.	2.5	14
26	Pulsed EPR Dipolar Spectroscopy on Spin Pairs with one Highly Anisotropic Spin Center: The Low-Spin Fe ³⁺ Case. <i>Chemistry - A European Journal</i> , 2019, 25, 14388-14398.	3.3	22
27	Studying Conformational Changes of the Yersinia Type-III-Secretion Effector YopO in Solution by Integrative Structural Biology. <i>Structure</i> , 2019, 27, 1416-1426.e3.	3.3	19
28	Site Selective and Efficient Spin Labeling of Proteins with a Maleimide-Functionalized Trityl Radical for Pulsed Dipolar EPR Spectroscopy. <i>Molecules</i> , 2019, 24, 2735.	3.8	30
29	Posttranscriptional spin labeling of RNA by tetrazine-based cycloaddition. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 1805-1808.	2.8	19
30	Synthesis of μ_2 -oxo-bridged Iron(III) Tetraphenylporphyrin-Spacer-Nitroxide Dimers and their Structural and Dynamics Characterization by using EPR and MD Simulations. <i>Chemistry - A European Journal</i> , 2019, 25, 2586-2596.	3.3	10
31	Pulsed EPR Dipolar Spectroscopy under the Breakdown of the High-Field Approximation: The High-Spin Iron(III) Case. <i>Chemistry - A European Journal</i> , 2019, 25, 8820-8828.	3.3	16
32	C-C Cross-Coupling Reactions of Trityl Radicals: Spin Density Delocalization, Exchange Coupling, and a Spin Label. <i>Journal of Organic Chemistry</i> , 2019, 84, 3293-3303.	3.2	22
33	Site-Directed Spin Labeling of RNA with a Gem-Diethylisindoline Spin Label: PELDOR, Relaxation, and Reduction Stability. <i>Molecules</i> , 2019, 24, 4482.	3.8	19
34	High-Yield Spin Labeling of Long RNAs for Electron Paramagnetic Resonance Spectroscopy. <i>Biochemistry</i> , 2018, 57, 2923-2931.	2.5	22
35	Silver Vanadyl(IV) ortho-Pyrophosphate: Synthesis, Crystal Structure, and Characterization of the (VO) ₂ ⁺ Group. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2018, 644, 424-429.	1.2	1
36	Synthesis of Nanometer Sized Bis- and Tris-trityl Model Compounds with Different Extent of Spin-Spin Coupling. <i>Molecules</i> , 2018, 23, 682.	3.8	19

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37	Performance of PELDOR, RIDME, SIFTER, and DQC in measuring distances in trityl based bi- and triradicals: exchange coupling, pseudosecular coupling and multi-spin effects. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13858-13869.	2.8	38
38	Tris[2,2,6,6-tetramethyl-8-(trimethylsilyl)benzo[1,2- <i>d</i> ;4,5- <i>d</i>] ² bis(1,3-dithiol)-4-yl]methanol diethyl ether monosolvate. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2018, 74, 539-542.	0.5	2
39	Di-copper(^{II}) DNA G-quadruplexes as EPR distance rulers. <i>Chemical Communications</i> , 2018, 54, 7455-7458.	4.1	36
40	Versatile Trityl Spin Labels for Nanometer Distance Measurements on Biomolecules In Vitro and within Cells. <i>Angewandte Chemie</i> , 2017, 129, 183-187.	2.0	32
41	Versatile Trityl Spin Labels for Nanometer Distance Measurements on Biomolecules In Vitro and within Cells. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 177-181.	13.8	109
42	Studying the Conformation of a Receptor Tyrosine Kinase in Solution by Inhibitor-Based Spin Labeling. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8417-8421.	13.8	21
43	Studying the Conformation of a Receptor Tyrosine Kinase in Solution by Inhibitor-Based Spin Labeling. <i>Angewandte Chemie</i> , 2017, 129, 8537-8541.	2.0	4
44	Time-Resolved Electron Paramagnetic Resonance and Theoretical Investigations of Metal-Free Room-Temperature Triplet Emitters. <i>Journal of the American Chemical Society</i> , 2017, 139, 12968-12975.	13.7	24
45	Structural basis for antibacterial peptide self-immunity by the bacterial ABC transporter McjD. <i>EMBO Journal</i> , 2017, 36, 3062-3079.	7.8	64
46	The Si ₂ H radical supported by two N-heterocyclic carbenes. <i>Chemical Science</i> , 2016, 7, 4973-4979.	7.4	19
47	Single and double nitroxide labeled bis(terpyridine)-copper(^{II}): influence of orientation selectivity and multispin effects on PELDOR and RIDME. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9262-9271.	2.8	40
48	PELDOR and RIDME Measurements on a High-Spin Manganese(II) Bisnitroxide Model Complex. <i>Journal of Physical Chemistry A</i> , 2016, 120, 3463-3472.	2.5	38
49	Post-synthetic Spin Labeling of RNA through Click Chemistry for PELDOR Measurements. <i>Chemistry - A European Journal</i> , 2016, 22, 12113-12121.	3.3	38
50	Taking a molecular motor for a spin: helicase mechanism studied by spin labeling and PELDOR. <i>Nucleic Acids Research</i> , 2016, 44, 954-968.	14.5	13
51	Studies on the X-Ray and Solution Structure of FeoB from <i>Escherichia coli</i> BL21. <i>Biophysical Journal</i> , 2016, 110, 2642-2650.	0.5	13
52	EPR studies on the kinetics of the $\dot{\text{I}}\pm$ -hydroxyethyl radical generated by Fenton-like chemistry. <i>Journal of Magnetic Resonance</i> , 2016, 265, 10-15.	2.1	6
53	Heme interacts with histidine- and tyrosine-based protein motifs and inhibits enzymatic activity of chloramphenicol acetyltransferase from <i>Escherichia coli</i> . <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2016, 1860, 1343-1353.	2.4	30
54	mtsslSuite. <i>Methods in Enzymology</i> , 2015, 563, 595-622.	1.0	55

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55	Crystal structure of 4-[[4-(2,2,6,6-tetramethyl-2-terpyridyl-4-yl)phenyl]ethynyl]biphenyl-4-yl (2,2,5,5-tetramethyl-1-oxyl-3-pyrrolin-3-yl)formate benzene 2.5-solvate. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 1245-1249.	0.5	5
56	Spectroscopic studies on peptides and proteins with cysteine-containing heme regulatory motifs (HRM). Journal of Inorganic Biochemistry, 2015, 148, 49-56.	3.5	24
57	Geometric model-based fitting algorithm for orientation-selective PELDOR data. Molecular Physics, 2015, 113, 544-560.	1.7	34
58	Efficient and General Aerobic Oxidative Cross-Coupling of THIQs with Organozinc Reagents Catalyzed by CuCl ₂ : Proof of a Radical Intermediate. Organic Letters, 2015, 17, 3982-3985.	4.6	54
59	Comparison of PELDOR and RIDME for Distance Measurements between Nitroxides and Low-Spin Fe(III) Ions. Journal of Physical Chemistry B, 2015, 119, 13534-13542.	2.6	62
60	Expression, purification and spin labelling of the ferrous iron transporter FeoB from Escherichia coli BL21 for EPR studies. Protein Expression and Purification, 2015, 114, 30-36.	1.3	14
61	(Bis(terpyridine))copper(II) Tetrphenylborate: A Complex Example for the Jahn-Teller Effect. Inorganic Chemistry, 2015, 54, 8456-8464.	4.0	28
62	EPR-Based Approach for the Localization of Paramagnetic Metal Ions in Biomolecules. Angewandte Chemie - International Edition, 2015, 54, 1827-1831.	13.8	64
63	The crystal structure of 4-[[4-(2,2,5,5-tetramethyl-N-oxyl-3-pyrrolin-3-yl)ethynyl]phenyl]-2,2,6,6-tetramethyl-2-terpyridine. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 870-874.	0.5	1
64	Probing the Structure of the Mechanosensitive Channel of Small Conductance in Lipid Bilayers with Pulsed Electron-Electron Double Resonance. Biophysical Journal, 2014, 106, 834-842.	0.5	48
65	High-resolution crystal structure of spin labelled (T21R1) azurin from Pseudomonas aeruginosa: a challenging structural benchmark for in silico spin labelling algorithms. BMC Structural Biology, 2014, 14, 16.	2.3	15
66	Measurements of short distances between trityl spin labels with CW EPR, DQC and PELDOR. Physical Chemistry Chemical Physics, 2013, 15, 19673.	2.8	59
67	Protein-induced changes in DNA structure and dynamics observed with noncovalent site-directed spin labeling and PELDOR. Nucleic Acids Research, 2013, 41, e11-e11.	14.5	29
68	mtsslSuite: In silico spin labelling, trilateration and distance-constrained rigid body docking in PyMOL. Molecular Physics, 2013, 111, 2757-2766.	1.7	59
69	Conformational state of the MscS mechanosensitive channel in solution revealed by pulsed electron-electron double resonance (PELDOR) spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2675-82.	7.1	92
70	Structural Information from Oligonucleotides. Structure and Bonding, 2012, , 249-281.	1.0	14
71	Trityl Radicals: Spin Labels for Nanometer Distance Measurements. Chemistry - A European Journal, 2012, 18, 13580-13584.	3.3	116
72	MtsslWizard: In Silico Spin-Labeling and Generation of Distance Distributions in PyMOL. Applied Magnetic Resonance, 2012, 42, 377-391.	1.2	196

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73	W-band PELDOR with 1 kW microwave power: Molecular geometry, flexibility and exchange coupling. <i>Journal of Magnetic Resonance</i> , 2012, 216, 175-182.	2.1	54
74	Pulsed electron-electron double resonance: beyond nanometre distance measurements on biomacromolecules. <i>Biochemical Journal</i> , 2011, 434, 353-363.	3.7	84
75	Conformational Flexibility of DNA. <i>Journal of the American Chemical Society</i> , 2011, 133, 13375-13379.	13.7	107
76	Studying biomolecular complexes with pulsed electron-electron double resonance spectroscopy. <i>Biochemical Society Transactions</i> , 2011, 39, 128-139.	3.4	43
77	Antiferromagnetic Coupling of Stacked Cu ^{II} -Salen Complexes in DNA. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4927-4929.	13.8	82
78	Relative Orientation of Rigid Nitroxides by PELDOR: Beyond Distance Measurements in Nucleic Acids. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3292-3295.	13.8	184
79	PELDOR Spectroscopy Distance Fingerprinting of the Octameric Outer Membrane Protein Wza from <i>Escherichia coli</i> . <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2904-2906.	13.8	63
80	PELDOR on an exchange coupled nitroxide copper(II) spin pair. <i>Journal of Organometallic Chemistry</i> , 2009, 694, 1172-1179.	1.8	45
81	Mapping Global Folds of Oligonucleotides by Pulsed Electron-Electron Double Resonance. <i>Methods in Enzymology</i> , 2009, 469, 329-351.	1.0	25
82	PELDOR Measurements on a Nitroxide-Labeled Cu(II) Porphyrin: Orientation Selection, Spin-Density Distribution, and Conformational Flexibility. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5064-5073.	2.5	121
83	The Different Role of High-Affinity and Low-Affinity Metal Ions in Cleavage by a Tertiary Stabilized Cis Hammerhead Ribozyme from Tobacco Ringspot Virus. <i>Oligonucleotides</i> , 2008, 18, 101-110.	2.7	9
84	Long-range distance determinations in biomacromolecules by EPR spectroscopy. <i>Quarterly Reviews of Biophysics</i> , 2007, 40, 1-53.	5.7	497
85	Base-specific spin-labeling of RNA for structure determination. <i>Nucleic Acids Research</i> , 2007, 35, 3128-3143.	14.5	146
86	Counting the Monomers in Nanometer-Sized Oligomers by Pulsed Electron-Electron Double Resonance. <i>Journal of the American Chemical Society</i> , 2007, 129, 6736-6745.	13.7	195
87	Characterizing multiple metal ion binding sites within a ribozyme by cadmium-induced EPR silencing. <i>HFSP Journal</i> , 2007, 1, 127-136.	2.5	36
88	Spin labeling of oligonucleotides with the nitroxide TPA and use of PELDOR, a pulse EPR method, to measure intramolecular distances. <i>Nature Protocols</i> , 2007, 2, 904-923.	12.0	150
89	Binding of manganese(II) to a tertiary stabilized hammerhead ribozyme as studied by electron paramagnetic resonance spectroscopy. <i>Rna</i> , 2005, 11, 1-6.	3.5	57
90	SYNTHESIS OF SPIN-LABELED RNAs FOR LONG RANGE DISTANCE MEASUREMENTS BY PELDOR. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2005, 24, 771-775.	1.1	44

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91	A PELDOR-Based Nanometer Distance Ruler for Oligonucleotides. Journal of the American Chemical Society, 2004, 126, 5722-5729.	13.7	193
92	Structural Investigation of a High-Affinity MnII Binding Site in the Hammerhead Ribozyme by EPR Spectroscopy and DFT Calculations. Effects of Neomycin B on Metal-Ion Binding. ChemBioChem, 2003, 4, 1057-1065.	2.6	54
93	Nanometer Distance Measurements on RNA Using PELDOR. Journal of the American Chemical Society, 2003, 125, 3434-3435.	13.7	127
94	PELDOR at S- and X-Band Frequencies and the Separation of Exchange Coupling from Dipolar Coupling. Journal of Magnetic Resonance, 2002, 157, 277-285.	2.1	94
95	Synthesis, crystal structure and magnetic properties of a novel nitroxide biradical. Theoretical investigation of the exchange mechanisms. Chemical Physics Letters, 2002, 364, 393-401.	2.6	32