

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
g-index

100
all docs

100
docs citations

100
times ranked

2326
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-range distance determinations in biomacromolecules by EPR spectroscopy. Quarterly Reviews of Biophysics, 2007, 40, 1-53.	5.7	497
2	MtsslWizard: In Silico Spin-Labeling and Generation of Distance Distributions in PyMOL. Applied Magnetic Resonance, 2012, 42, 377-391.	1.2	196
3	Counting the Monomers in Nanometer-Sized Oligomers by Pulsed Electronâ€”Electron Double Resonance. Journal of the American Chemical Society, 2007, 129, 6736-6745.	13.7	195
4	A PELDOR-Based Nanometer Distance Ruler for Oligonucleotides. Journal of the American Chemical Society, 2004, 126, 5722-5729.	13.7	193
5	Relative Orientation of Rigid Nitroxides by PELDOR: Beyond Distance Measurements in Nucleic Acids. Angewandte Chemie - International Edition, 2009, 48, 3292-3295.	13.8	184
6	Spin labeling of oligonucleotides with the nitroxide TPA and use of PELDOR, a pulse EPR method, to measure intramolecular distances. Nature Protocols, 2007, 2, 904-923.	12.0	150
7	Base-specific spin-labeling of RNA for structure determination. Nucleic Acids Research, 2007, 35, 3128-3143.	14.5	146
8	Nanometer Distance Measurements on RNA Using PELDOR. Journal of the American Chemical Society, 2003, 125, 3434-3435.	13.7	127
9	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
10	PELDOR Measurements on a Nitroxide-Labeled Cu(II) Porphyrin: Orientation Selection, Spin-Density Distribution, and Conformational Flexibility. Journal of Physical Chemistry A, 2008, 112, 5064-5073.	2.5	121
11	Trityl Radicals: Spin Labels for Nanometerâ€”Distance Measurements. Chemistry - A European Journal, 2012, 18, 13580-13584.	3.3	116
12	Versatile Trityl Spin Labels for Nanometer Distance Measurements on Biomolecules Inâ€”Vitro and within Cells. Angewandte Chemie - International Edition, 2017, 56, 177-181.	13.8	109
13	Conformational Flexibility of DNA. Journal of the American Chemical Society, 2011, 133, 13375-13379.	13.7	107
14	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
15	Conformational state of the MscS mechanosensitive channel in solution revealed by pulsed electronâ€”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
16	Pulsed electronâ€”electron double resonance: beyond nanometre distance measurements on biomacromolecules. Biochemical Journal, 2011, 434, 353-363.	3.7	84
17	Antiferromagnetic Coupling of Stacked Cu^{II}â€”Salen Complexes in DNA. Angewandte Chemie - International Edition, 2010, 49, 4927-4929.	13.8	82
18	SLIM: A Shortâ€”Linked, Highly Redoxâ€”Stable Trityl Label for Highâ€”Sensitivity Inâ€”Cell EPR Distance Measurements. Angewandte Chemie - International Edition, 2020, 59, 9767-9772.	13.8	72

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19	Time-resolved structural analysis of an RNA-cleaving DNA catalyst. <i>Nature</i> , 2022, 601, 144-149.	27.8	65
20	EPR-Based Approach for the Localization of Paramagnetic Metal Ions in Biomolecules. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1827-1831.	13.8	64
21	Structural basis for antibacterial peptide self-immunity by the bacterial ABC transporter McjD. <i>EMBO Journal</i> , 2017, 36, 3062-3079.	7.8	64
22	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
23	Comparison of PELDOR and RIDME for Distance Measurements between Nitroxides and Low-Spin Fe(III) Ions. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13534-13542.	2.6	62
24	Measurements of short distances between trityl spin labels with CW EPR, DQC and PELDOR. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19673.	2.8	59
25	mtsslSuite: <i>In silico</i> spin labelling, trilateration and distance-constrained rigid body docking in PyMOL. <i>Molecular Physics</i> , 2013, 111, 2757-2766.	1.7	59
26	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
27	mtsslSuite. <i>Methods in Enzymology</i> , 2015, 563, 595-622.	1.0	55
28	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. <i>ChemBioChem</i> , 2003, 4, 1057-1065.	2.6	54
29	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
30	Efficient and General Aerobic Oxidative Cross-Coupling of THIQs with Organozinc Reagents Catalyzed by CuCl ₂ : Proof of a Radical Intermediate. <i>Organic Letters</i> , 2015, 17, 3982-3985.	4.6	54
31	Probing the Structure of the Mechanosensitive Channel of Small Conductance in Lipid Bilayers with Pulsed Electron-Electron Double Resonance. <i>Biophysical Journal</i> , 2014, 106, 834-842.	0.5	48
32	PELDOR on an exchange coupled nitroxide copper(II) spin pair. <i>Journal of Organometallic Chemistry</i> , 2009, 694, 1172-1179.	1.8	45
33	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
34	Studying biomolecular complexes with pulsed electron-electron double resonance spectroscopy. <i>Biochemical Society Transactions</i> , 2011, 39, 128-139.	3.4	43
35	Pulsed Dipolar EPR Spectroscopy and Metal Ions: Methodology and Biological Applications. <i>ChemPlusChem</i> , 2020, 85, 353-372.	2.8	42
36	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

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37	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
38	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
39	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
40	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
41	Di-copper(μ -DNA G-quadruplexes as EPR distance rulers. <i>Chemical Communications</i> , 2018, 54, 7455-7458.	4.1	36
42	OxSLIM: Synthesis of and Site-Specific Labelling with a Highly Hydrophilic Trityl Spin Label. <i>Chemistry - A European Journal</i> , 2021, 27, 5292-5297.	3.3	36
43	Geometric model-based fitting algorithm for orientation-selective PELDOR data. <i>Molecular Physics</i> , 2015, 113, 544-560.	1.7	34
44	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
45	Synthesis, crystal structure and magnetic properties of a novel nitroxide biradical. Theoretical investigation of the exchange mechanisms. <i>Chemical Physics Letters</i> , 2002, 364, 393-401.	2.6	32
46	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
47	Modeling of spin-spin distance distributions for nitroxide labeled biomacromolecules. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24282-24290.	2.8	32
48	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
49	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
50	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
51	Protein-induced changes in DNA structure and dynamics observed with noncovalent site-directed spin labeling and PELDOR. <i>Nucleic Acids Research</i> , 2013, 41, e11-e11.	14.5	29
52	(Bis(terpyridine))copper(II) Tetrphenylborate: A Complex Example for the Jahn-Teller Effect. <i>Inorganic Chemistry</i> , 2015, 54, 8456-8464.	4.0	28
53	Mapping Global Folds of Oligonucleotides by Pulsed Electron-Electron Double Resonance. <i>Methods in Enzymology</i> , 2009, 469, 329-351.	1.0	25
54	Spectroscopic studies on peptides and proteins with cysteine-containing heme regulatory motifs (HRM). <i>Journal of Inorganic Biochemistry</i> , 2015, 148, 49-56.	3.5	24

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55	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
56	High-Yield Spin Labeling of Long RNAs for Electron Paramagnetic Resonance Spectroscopy. <i>Biochemistry</i> , 2018, 57, 2923-2931.	2.5	22
57	Pulsed EPR Dipolar Spectroscopy on Spin Pairs with one Highly Anisotropic Spin Center: The Low-Spin Fe ^{III} Case. <i>Chemistry - A European Journal</i> , 2019, 25, 14388-14398.	3.3	22
58	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
59	Excitation Energy Transfer and Exchange-Mediated Quartet State Formation in Porphyrin-Trityl Systems. <i>Chemistry - A European Journal</i> , 2021, 27, 2683-2691.	3.3	22
60	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
61	The Si ₂ H radical supported by two N-heterocyclic carbenes. <i>Chemical Science</i> , 2016, 7, 4973-4979.	7.4	19
62	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
63	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
64	Posttranscriptional spin labeling of RNA by tetrazine-based cycloaddition. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 1805-1808.	2.8	19
65	Site-Directed Spin Labeling of RNA with a Gem-Diethylisoindoline Spin Label: PELDOR, Relaxation, and Reduction Stability. <i>Molecules</i> , 2019, 24, 4482.	3.8	19
66	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
67	Do the P1 and P2 hairpins of the Guanidine-II riboswitch interact?. <i>Nucleic Acids Research</i> , 2020, 48, 10518-10526.	14.5	17
68	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
69	High-resolution crystal structure of spin labelled (T21R1) azurin from <i>Pseudomonas aeruginosa</i> : a challenging structural benchmark for in silico spin labelling algorithms. <i>BMC Structural Biology</i> , 2014, 14, 16.	2.3	15
70	Structural Information from Oligonucleotides. <i>Structure and Bonding</i> , 2012, , 249-281.	1.0	14
71	Expression, purification and spin labelling of the ferrous iron transporter FeoB from <i>Escherichia coli</i> BL21 for EPR studies. <i>Protein Expression and Purification</i> , 2015, 114, 30-36.	1.3	14
72	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

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73	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
74	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
75	Synthesis of $\frac{1}{4} \times 2$ 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
76	Unraveling a Ligand-Induced Twist of a Homodimeric Enzyme by Pulsed Electron-Double Resonance. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 23419-23426.	13.8	10
77	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
78	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
79	Six-Pulse RIDME Sequence to Avoid Background Artifacts. <i>Applied Magnetic Resonance</i> , 2022, 53, 539-554.	1.2	9
80	Localization of metal ions in biomolecules by means of pulsed dipolar EPR spectroscopy. <i>Dalton Transactions</i> , 2021, 50, 808-815.	3.3	8
81	EPR studies on the kinetics of the $\dot{\text{C}}\text{H}$ -hydroxyethyl radical generated by Fenton-like chemistry. <i>Journal of Magnetic Resonance</i> , 2016, 265, 10-15.	2.1	6
82	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
83	Crystal structure of $\text{[4-(2,2,6,6-tetramethyl-2-terpyridyl-4-yl)phenyl]ethynyl} \text{biphenyl-4-yl (2,2,5,5-tetramethyl-1-oxyl-3-pyrroline-3-yl)formate benzene 2.5-solvate}$. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2015, 71, 1245-1249.	0.5	5
84	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
85	Tris[2,2,6,6-tetramethyl-8-(trimethylsilyl)benzo[1,2-d;4,5-d 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
86	Multi-Frequency and Single-Crystal EPR on V ⁴⁺ in W-Doped V^{2+} -Vanadyl(V) Phosphate: Hyperfine Coupling- and g-Tensor Values and Orientation. <i>Applied Magnetic Resonance</i> , 2021, 52, 169-175.	1.2	2
87	Silver Vanadyl(IV) ortho-Pyrophosphate: Synthesis, Crystal Structure, and Characterization of the $(\text{V}^{\text{IV}}\text{O})_{2+}$ Group. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2018, 644, 424-429.	1.2	1
88	OH radical reactions with the hydrophilic component of sphingolipids. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 1639-1648.	2.8	1
89	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
90	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

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91	Entschlüsselung der ligandeninduzierten Verdrehung eines homodimeren Enzyms mit Hilfe der gepulsten Elektronen-Elektronen-Doppelresonanz-Spektroskopie. <i>Angewandte Chemie</i> , 2021, 133, 23607.	2.0	1
92	The crystal structure of 4'-{4-[(2,2,5,5-tetramethyl-N-oxyl-3-pyrrolin-3-yl)ethynyl]phenyl}-2,2':6''-terpyridine. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2015, 71, 870-874.	0.5	1
93	Spin Labeling of Long RNAs Via Click Reaction and Enzymatic Ligation. <i>Methods in Molecular Biology</i> , 2022, 2439, 205-221.	0.9	1
94	Trendbericht: Elektronen-Paramagnetische-Resonanzspektroskopie. <i>Nachrichten Aus Der Chemie</i> , 2021, 69, 54-62.	0.0	0
95	PELDOR Measurements on Nitroxide-Labeled Oligonucleotides. <i>Methods in Molecular Biology</i> , 2022, 2439, 241-274.	0.9	0