Thomas Theis

List of Publications by Year
in descending order

71	3,568	126907	133252
papers	citations	33 h-index	59 g-index

77	77	77	1227
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Orderâ€Unity ¹³C Nuclear Polarization of [1â€¹³C]Pyruvate in Seconds and the Interplay of Water and SABRE Enhancement. ChemPhysChem, 2022, 23, .	2.1	30
2	Instrumentation for Hydrogenative Parahydrogen-Based Hyperpolarization Techniques. Analytical Chemistry, 2022, 94, 479-502.	6.5	52
3	Temperature Cycling Enables Efficient ¹³C SABRE-SHEATH Hyperpolarization and Imaging of [1-¹³C]-Pyruvate. Journal of the American Chemical Society, 2022, 144, 282-287.	13.7	39
4	RASER MRI: Magnetic resonance images formed spontaneously exploiting cooperative nonlinear interaction. Science Advances, 2022, 8, .	10.3	12
5	SABRE and PHIP pumped RASER and the route to chaos. Journal of Magnetic Resonance, 2021, 322, 106815.	2.1	19
6	Micron-Scale NV-NMR Spectroscopy with Signal Amplification by Reversible Exchange. PRX Quantum, 2021, 2, .	9.2	27
7	Intensified continuous extraction of switchable hydrophilicity solvents triggered by carbon dioxide. Green Chemistry, 2021, 23, 2900-2906.	9.0	13
8	Hyperpolarization of common antifungal agents with SABRE. Magnetic Resonance in Chemistry, 2021, 59, 1225-1235.	1.9	8
9	A Versatile Compact Parahydrogen Membrane Reactor. ChemPhysChem, 2021, 22, 2526-2534.	2.1	17
10	Density Functional Theory Study of Reaction Equilibria in Signal Amplification by Reversible Exchange. ChemPhysChem, 2021, 22, 1947-1957.	2.1	8
11	Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation. Angewandte Chemie - International Edition, 2021, 60, 26298-26302.	13.8	12
12	Density Functional Theory Study of Reaction Equilibria in Signal Amplification by Reversible Exchange. ChemPhysChem, 2021, 22, 1937-1938.	2.1	2
13	Innentitelbild: Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation (Angew. Chem. 50/2021). Angewandte Chemie, 2021, 133, 26206-26206.	2.0	0
14	Automated pneumatic shuttle for magnetic field cycling and parahydrogen hyperpolarized multidimensional NMR. Journal of Magnetic Resonance, 2020, 312, 106700.	2.1	16
15	SABRE polarized low field rare-spin spectroscopy. Journal of Chemical Physics, 2020, 152, 184202.	3.0	15
16	Parahydrogenâ€Induced Radio Amplification by Stimulated Emission of Radiation. Angewandte Chemie - International Edition, 2020, 59, 8654-8660.	13.8	22
17	Parawasserstoffâ€induzierte Hyperpolarisation von Gasen. Angewandte Chemie, 2020, 132, 17940-17949.	2.0	1
18	Parahydrogenâ€Induced Radio Amplification by Stimulated Emission of Radiation. Angewandte Chemie, 2020, 132, 8732-8738.	2.0	14

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19	Application of ¹⁵N₂-Diazirines as a Versatile Platform for Hyperpolarization of Biological Molecules by d-DNP. Bioconjugate Chemistry, 2020, 31, 537-541.	3.6	6
20	Parahydrogenâ€Induced Hyperpolarization of Gases. Angewandte Chemie - International Edition, 2020, 59, 17788-17797.	13.8	27
21	Rational ligand choice extends the SABRE substrate scope. Chemical Communications, 2020, 56, 9336-9339.	4.1	23
22	Terminal Diazirines Enable Reverse Polarization Transfer from ¹⁵N₂ Singlets. Angewandte Chemie, 2019, 131, 11235-11241.	2.0	9
23	Iodonitrene in Action: Direct Transformation of Amino Acids into Terminal Diazirines and ¹⁵N₂-Diazirines and Their Application as Hyperpolarized Markers. Journal of the American Chemical Society, 2019, 141, 13689-13696.	13.7	32
24	Quasi-Resonance Fluorine-19 Signal Amplification by Reversible Exchange. Journal of Physical Chemistry Letters, 2019, 10, 4229-4236.	4.6	23
25	Selective hyperpolarization of heteronuclear singlet states via pulsed microtesla SABRE. Journal of Chemical Physics, 2019, 151, 044201.	3.0	16
26	Unveiling coherentlyÂdriven hyperpolarization dynamics in signal amplification by reversible exchange. Nature Communications, 2019, 10, 395.	12.8	36
27	Terminal Diazirines Enable Reverse Polarization Transfer from ¹⁵N₂ Singlets. Angewandte Chemie - International Edition, 2019, 58, 11118-11124.	13.8	14
28	Hyperpolarizing Concentrated Metronidazole ¹⁵NO₂ Group over Six Chemical Bonds with More than 15â€‰% Polarization and a 20â€…Minute Lifetime. Chemistry - A European Journal, 2019, 25, 8829-8836.	3.3	48
29	¹⁵ N ₄ -1,2,4,5-tetrazines as potential molecular tags: Integrating bioorthogonal chemistry with hyperpolarization and unearthing para -N ₂. Science Advances, 2018, 4, eaar2978.	10.3	22
30	Parahydrogenâ€Based Hyperpolarization for Biomedicine. Angewandte Chemie - International Edition, 2018, 57, 11140-11162.	13.8	251
31	Quasi-Resonance Signal Amplification by Reversible Exchange. Journal of Physical Chemistry Letters, 2018, 9, 6136-6142.	4.6	35
32	Parawasserstoffâ€basierte Hyperpolarisierung fÃ¼r die Biomedizin. Angewandte Chemie, 2018, 130, 11310-11333.	2.0	54
33	NMR Spectroscopy Techniques: Hyperpolarization for Sensitivity Enhancement. , 2018, , 168-168.		1
34	Generalizing, Extending, and Maximizing Nitrogen-15 Hyperpolarization Induced by Parahydrogen in Reversible Exchange. Journal of Physical Chemistry C, 2017, 121, 6626-6634.	3.1	112
35	Direct Hyperpolarization of Nitrogen-15 in Aqueous Media with Parahydrogen in Reversible Exchange. Journal of the American Chemical Society, 2017, 139, 7761-7767.	13.7	80
36	The Absence of Quadrupolar Nuclei Facilitates Efficient ¹³C Hyperpolarization via Reversible Exchange with Parahydrogen. ChemPhysChem, 2017, 18, 1493-1498.	2.1	87

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37	Toward Hyperpolarized ¹⁹F Molecular Imaging via Reversible Exchange with Parahydrogen. ChemPhysChem, 2017, 18, 1961-1965.	2.1	57
38	Long-Lived ¹³C₂ Nuclear Spin States Hyperpolarized by Parahydrogen in Reversible Exchange at Microtesla Fields. Journal of Physical Chemistry Letters, 2017, 8, 3008-3014.	4.6	63
39	Titelbild: Diazirines as Potential Molecular Imaging Tags: Probing the Requirements for Efficient and Longâ€Lived SABREâ€Induced Hyperpolarization (Angew. Chem. 40/2017). Angewandte Chemie, 2017, 129, 12179-12179.	2.0	0
40	Invited Review Article: Instrumentation for nuclear magnetic resonance in zero and ultralow magnetic field. Review of Scientific Instruments, 2017, 88, 091101.	1.3	83
41	Diazirines as Potential Molecular Imaging Tags: Probing the Requirements for Efficient and Longâ€Lived SABREâ€Induced Hyperpolarization. Angewandte Chemie, 2017, 129, 12280-12284.	2.0	28
42	Diazirines as Potential Molecular Imaging Tags: Probing the Requirements for Efficient and Longâ€Lived SABREâ€Induced Hyperpolarization. Angewandte Chemie - International Edition, 2017, 56, 12112-12116.	13.8	50
43	Spin Relays Enable Efficient Long-Range Heteronuclear Signal Amplification by Reversible Exchange. Journal of Physical Chemistry C, 2017, 121, 28425-28434.	3.1	46
44	Hyperpolarization of Nitrogenâ€15 Schiff Bases by Reversible Exchange Catalysis with paraâ€Hydrogen. Chemistry - A European Journal, 2016, 22, 10777-10781.	3.3	45
45	¹⁵N Hyperpolarization of Imidazole-¹⁵N₂ for Magnetic Resonance pH Sensing via SABRE-SHEATH. ACS Sensors, 2016, 1, 640-644.	7.8	111
46	Direct and cost-efficient hyperpolarization of long-lived nuclear spin states on universal ¹⁵ N ₂ -diazirine molecular tags. Science Advances, 2016, 2, e1501438.	10.3	193
47	Over 20% ¹⁵N Hyperpolarization in Under One Minute for Metronidazole, an Antibiotic and Hypoxia Probe. Journal of the American Chemical Society, 2016, 138, 8080-8083.	13.7	123
48	Accessing long lived 1H states via 2H couplings. Journal of Magnetic Resonance, 2016, 263, 108-115.	2.1	8
49	Microtesla SABRE Enables 10% Nitrogen-15 Nuclear Spin Polarization. Journal of the American Chemical Society, 2015, 137, 1404-1407.	13.7	275
50	Hyperpolarization of â€œNeatâ€•Liquids by NMR Signal Amplification by Reversible Exchange. Journal of Physical Chemistry Letters, 2015, 6, 1961-1967.	4.6	85
51	¹⁵N Hyperpolarization by Reversible Exchange Using SABRE-SHEATH. Journal of Physical Chemistry C, 2015, 119, 8786-8797.	3.1	192
52	Measuring long-lived 13C2 state lifetimes at natural abundance. Journal of Magnetic Resonance, 2014, 239, 81-86.	2.1	25
53	Long-lived polarization protected by symmetry. Journal of Chemical Physics, 2014, 141, 134307.	3.0	41
54	LIGHT-SABRE enables efficient in-magnet catalytic hyperpolarization. Journal of Magnetic Resonance, 2014, 248, 23-26.	2.1	151

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55	Accessing Long-Lived Disconnected Spin-¹/₂ Eigenstates through Spins > ¹/₂. Journal of the American Chemical Society, 2014, 136, 15118-15121.	13.7	19
56	Long-Lived Heteronuclear Spin-Singlet States in Liquids at a Zero Magnetic field. Physical Review Letters, 2014, 112, 077601.	7.8	52
57	Composite and shaped pulses for efficient and robust pumping of disconnected eigenstates in magnetic resonance. Journal of Chemical Physics, 2014, 140, 014201.	3.0	73
58	Analysis of parahydrogen polarized spin system in low magnetic fields. Physical Chemistry Chemical Physics, 2014, 16, 15411-15421.	2.8	12
59	Parahydrogen-induced polarization at zero magnetic field. Journal of Chemical Physics, 2013, 138, 234201.	3.0	19
60	Chemical analysis using J-coupling multiplets in zero-field NMR. Chemical Physics Letters, 2013, 580, 160-165.	2.6	37
61	High-Resolution Zero-Field NMR J-Spectroscopy of Aromatic Compounds. Journal of the American Chemical Society, 2013, 135, 3607-3612.	13.7	54
62	Fundamental Aspects of Parahydrogen Enhanced Low-Field Nuclear Magnetic Resonance. Physical Review Letters, 2013, 110, 137602.	7.8	32
63	Storage of Hydrogen Spin Polarization in Long-Lived ¹³C₂ Singlet Order and Implications for Hyperpolarized Magnetic Resonance Imaging. Journal of the American Chemical Society, 2013, 135, 9632-9635.	13.7	65
64	Multiplets at zero magnetic field: The geometry of zero-field NMR. Journal of Chemical Physics, 2013, 138, 184202.	3.0	23
65	Vibrationally resolved transition state spectroscopy of the F + H2 and F + CH4 reactions. Faraday Discussions, 2012, 157, 399.	3.2	30
66	Zero-Field NMR Enhanced by Parahydrogen in Reversible Exchange. Journal of the American Chemical Society, 2012, 134, 3987-3990.	13.7	83
67	Near-Zero-Field Nuclear Magnetic Resonance. Physical Review Letters, 2011, 107, 107601.	7.8	92
68	Parahydrogen-enhanced zero-field nuclear magnetic resonance. Nature Physics, 2011, 7, 571-575.	16.7	132
69	PLP Labeling in ESR Spectroscopic Analysis of Secondary and Tertiary Acrylate Propagating Radicals. Macromolecules, 2008, 41, 288-291.	4.8	56
70	Chain-Length-Dependent Termination in Acrylate Radical Polymerization Studied via Pulsed-Laser-Initiated RAFT Polymerization. Australian Journal of Chemistry, 2007, 60, 779.	0.9	28
71	Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation. Angewandte Chemie, 0, , .	2.0	2