

Geoffrey Bodenhausen

List of Publications by Year in descending order

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101
papers

8,422
citations

70961

41
h-index

43802

91
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108
all docs

108
docs citations

108
times ranked

4762
citing authors

#	ARTICLE	IF	CITATIONS
1	Inversion of Hyperpolarized ¹³ C NMR Signals through Cross-Correlated Cross-Relaxation in Dissolution DNP Experiments. <i>Journal of Physical Chemistry B</i> , 2022, 126, 4599-4610.	1.2	4
2	Sequential assignment of NMR spectra of peptides at natural isotopic abundance with zero- and ultra-low-field total correlation spectroscopy (ZULF-TOCSY). <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9715-9720.	1.3	3
3	Natural abundance oxygen-17 solid-state NMR of metal organic frameworks enhanced by dynamic nuclear polarization. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 2245-2251.	1.3	13
4	In memoriam Konstantin L'vovich Ivanov. <i>Magnetic Resonance</i> , 2021, 2, 341-342.	0.8	1
5	Spatio-temporal encoding by quadratic gradients in magnetic resonance imaging. <i>Journal of Magnetic Resonance Open</i> , 2020, 4-5, 100008.	0.5	0
6	Self-Assembly of DNA and RNA Building Blocks Explored by Nitrogen-14 NMR Crystallography: Structure and Dynamics. <i>ChemPhysChem</i> , 2020, 21, 1044-1051.	1.0	7
7	Sensitivity-enhanced three-dimensional and carbon-detected two-dimensional NMR of proteins using hyperpolarized water. <i>Journal of Biomolecular NMR</i> , 2020, 74, 161-171.	1.6	17
8	Spin Thermometry: A Straightforward Measure of Millikelvin Deuterium Spin Temperatures Achieved by Dynamic Nuclear Polarization. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3219-3225.	2.1	10
9	A Low-Temperature Broadband NMR Probe for Multinuclear Cross-Polarization. <i>ChemPhysChem</i> , 2019, 20, 2830-2835.	1.0	4
10	Transport of hyperpolarized samples in dissolution-DNP experiments. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 13696-13705.	1.3	16
11	Cross-term Splittings Due to the Orientational Inequivalence of Proton Magnetic Shielding Tensors: Do Water Molecules Trapped in Crystals Hop or Tunnel?. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3224-3231.	2.1	8
12	Long-Lived States in Hyperpolarized Deuterated Methyl Groups Reveal Weak Binding of Small Molecules to Proteins. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1523-1529.	2.1	15
13	Proton Relaxometry of Long-Lived Spin Order. <i>ChemPhysChem</i> , 2019, 20, 766-772.	1.0	14
14	Tailored Microstructured Hyperpolarizing Matrices for Optimal Magnetic Resonance Imaging. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7453-7457.	7.2	24
15	Rates of Chemical Reactions Embedded in a Metabolic Network by Dissolution Dynamic Nuclear Polarisation NMR. <i>Chemistry - A European Journal</i> , 2018, 24, 5456-5461.	1.7	9
16	Sisyphus desperately seeking publisher. <i>Journal of Biosciences</i> , 2018, 43, 9-14.	0.5	0
17	Tailored Microstructured Hyperpolarizing Matrices for Optimal Magnetic Resonance Imaging. <i>Angewandte Chemie</i> , 2018, 130, 7575-7579.	1.6	13
18	Dipolar couplings in solid polypeptides probed by ¹⁴ N NMR spectroscopy. <i>Communications Chemistry</i> , 2018, 1, .	2.0	10

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19	High-Resolution NMR of Folded Proteins in Hyperpolarized Physiological Solvents. <i>Chemistry - A European Journal</i> , 2018, 24, 13418-13423.	1.7	20
20	A cryogen-consumption-free system for dynamic nuclear polarization at 9.4 T. <i>Journal of Magnetic Resonance</i> , 2018, 294, 115-121.	1.2	34
21	Advances in single-scan time-encoding magnetic resonance imaging. <i>Scientific Reports</i> , 2018, 8, 10891.	1.6	1
22	Relaxation of long-lived modes in NMR of deuterated methyl groups. <i>Journal of Chemical Physics</i> , 2018, 149, 054202.	1.2	14
23	Transportable hyperpolarized metabolites. <i>Nature Communications</i> , 2017, 8, 13975.	5.8	86
24	Hyperpolarization of nitrogen-15 nuclei by cross polarization and dissolution dynamic nuclear polarization. <i>Review of Scientific Instruments</i> , 2017, 88, 015109.	0.6	19
25	Communication: Dissolution DNP reveals a long-lived deuterium spin state imbalance in methyl groups. <i>Journal of Chemical Physics</i> , 2017, 146, 041101.	1.2	16
26	Tailored Polarizing Hybrid Solids with Nitroxide Radicals Localized in Mesoporous Silica Walls. <i>Helvetica Chimica Acta</i> , 2017, 100, e1700101.	1.0	24
27	Investigation of Intrinsically Disordered Proteins through Exchange with Hyperpolarized Water. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 389-392.	7.2	53
28	Susceptibility contrast by echo shifting in spatially encoded single-scan MRI. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 14210-14213.	1.3	3
29	Anisotropic longitudinal electronic relaxation affects DNP at cryogenic temperatures. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 16087-16094.	1.3	10
30	Characterizing Thermal Mixing Dynamic Nuclear Polarization via Cross-Talk between Spin Reservoirs. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5531-5536.	2.1	29
31	Dynamic Nuclear Polarization of Long-Lived Nuclear Spin States in Methyl Groups. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3549-3555.	2.1	34
32	Double cross polarization for the indirect detection of nitrogen-14 nuclei in magic angle spinning NMR spectroscopy. <i>Journal of Chemical Physics</i> , 2017, 147, 184201.	1.2	25
33	Collisional cross-section of water molecules in vapour studied by means of ¹ H relaxation in NMR. <i>Scientific Reports</i> , 2016, 6, 38492.	1.6	10
34	Dissolution dynamic nuclear polarization of deuterated molecules enhanced by cross-polarization. <i>Journal of Chemical Physics</i> , 2016, 145, 194203.	1.2	12
35	The effects of molecular diffusion in spatially encoded magnetic resonance imaging. <i>Journal of Magnetic Resonance</i> , 2016, 273, 98-104.	1.2	3
36	Hyperpolarization of Frozen Hydrocarbon Gases by Dynamic Nuclear Polarization at 1.2 K. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3235-3239.	2.1	18

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37	Cubic three-dimensional hybrid silica solids for nuclear hyperpolarization. <i>Chemical Science</i> , 2016, 7, 6846-6850.	3.7	19
38	Filterable Agents for Hyperpolarization of Water, Metabolites, and Proteins. <i>Chemistry - A European Journal</i> , 2016, 22, 14696-14700.	1.7	31
39	Microwave-gated dynamic nuclear polarization. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30530-30535.	1.3	42
40	Highly Repeatable Dissolution Dynamic Nuclear Polarization for Heteronuclear NMR Metabolomics. <i>Analytical Chemistry</i> , 2016, 88, 6179-6183.	3.2	57
41	Hyperpolarized <i>para</i> -Ethanol. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4048-4052.	1.2	26
42	Lifetimes of long-lived states in inhomogeneous magnetic fields. <i>Chemical Physics Letters</i> , 2015, 623, 113-116.	1.2	4
43	A magnetic tunnel to shelter hyperpolarized fluids. <i>Review of Scientific Instruments</i> , 2015, 86, 024101.	0.6	77
44	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. <i>Analyst</i> , 2015, 140, 5860-5863.	1.7	87
45	Hyperpolarized Water to Study Protein-Ligand Interactions. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1674-1678.	2.1	62
46	Measuring absolute spin polarization in dissolution-DNP by Spin Polarimetry Magnetic Resonance (SPY-MR). <i>Journal of Magnetic Resonance</i> , 2015, 260, 127-135.	1.2	18
47	Challenges in preparing, preserving and detecting <i>para</i> -water in bulk: overcoming proton exchange and other hurdles. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 26819-26827.	1.3	29
48	Solid-state NMR measurements and DFT calculations of the magnetic shielding tensors of protons of water trapped in barium chlorate monohydrate. <i>RSC Advances</i> , 2014, 4, 56248-56258.	1.7	17
49	Microwave frequency modulation to enhance Dissolution Dynamic Nuclear Polarization. <i>Chemical Physics Letters</i> , 2014, 602, 63-67.	1.2	81
50	Hybrid polarizing solids for pure hyperpolarized liquids through dissolution dynamic nuclear polarization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14693-14697.	3.3	93
51	Hyperpolarization of Deuterated Metabolites via Remote Cross-Polarization and Dissolution Dynamic Nuclear Polarization. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1411-1415.	1.2	48
52	Toward Quantitative Measurements of Enzyme Kinetics by Dissolution Dynamic Nuclear Polarization. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3290-3295.	2.1	36
53	Probing ²⁷ Al- ¹³ C proximities in metal-organic frameworks using dynamic nuclear polarization enhanced NMR spectroscopy. <i>Chemical Communications</i> , 2014, 50, 933-935.	2.2	67
54	Drug Screening Boosted by Hyperpolarized Long-Lived States in NMR. <i>ChemMedChem</i> , 2014, 9, 2509-2515.	1.6	63

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55	Long-Lived States of Magnetically Equivalent Spins Populated by Dissolution-DNP and Revealed by Enzymatic Reactions. <i>Chemistry - A European Journal</i> , 2014, 20, 17113-17118.	1.7	50
56	Solid-state NMR enhanced by dynamic nuclear polarization as a novel tool for ribosome structural biology. <i>Journal of Biomolecular NMR</i> , 2013, 56, 85-93.	1.6	59
57	Boosting Dissolution Dynamic Nuclear Polarization by Cross Polarization. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 111-114.	2.1	116
58	High field dynamic nuclear polarization at 6.7T: Carbon-13 polarization above 70% within 20min. <i>Chemical Physics Letters</i> , 2012, 549, 99-102.	1.2	107
59	Uniform broadband excitation of crystallites in rotating solids using interleaved sequences of delays alternating with nutation. <i>Journal of Magnetic Resonance</i> , 2012, 223, 228-236.	1.2	29
60	Dynamic nuclear polarization of quadrupolar nuclei using cross polarization from protons: surface-enhanced aluminium-27 NMR. <i>Chemical Communications</i> , 2012, 48, 1988.	2.2	123
61	Boosting the Sensitivity of Ligand-Protein Screening by NMR of Long-Lived States. <i>Journal of the American Chemical Society</i> , 2012, 134, 11076-11079.	6.6	75
62	Cross Polarization for Dissolution Dynamic Nuclear Polarization Experiments at Readily Accessible Temperatures 1.2-4.2K. <i>Applied Magnetic Resonance</i> , 2012, 43, 107-117.	0.6	48
63	Fast Characterization of Functionalized Silica Materials by Silicon-29 Surface-Enhanced NMR Spectroscopy Using Dynamic Nuclear Polarization. <i>Journal of the American Chemical Society</i> , 2011, 133, 2104-2107.	6.6	254
64	Broadband excitation and indirect detection of nitrogen-14 in rotating solids using Delays Alternating with Nutation (DANTE). <i>Journal of Magnetic Resonance</i> , 2011, 212, 234-239.	1.2	45
65	Three-field NMR to preserve hyperpolarized proton magnetization as long-lived states in moderate magnetic fields. <i>Chemical Physics Letters</i> , 2011, 512, 151-154.	1.2	33
66	Low-temperature cross polarization in view of enhancing dissolution Dynamic Nuclear Polarization in NMR. <i>Chemical Physics Letters</i> , 2011, 517, 234-236.	1.2	62
67	Long-Lived States to Monitor Protein Unfolding by Proton NMR. <i>ChemPhysChem</i> , 2011, 12, 2729-2734.	1.0	41
68	Relaxometry of insensitive nuclei: Optimizing dissolution dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2011, 210, 137-140.	1.2	47
69	Bibliometrics as Weapons of Mass Citation La bibliométrie comme arme de citation massive. <i>Chimia</i> , 2010, 64, 78.	0.3	24
70	Scavenging Free Radicals To Preserve Enhancement and Extend Relaxation Times in NMR using Dynamic Nuclear Polarization. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 6182-6185.	7.2	89
71	Line-narrowing in proton-detected nitrogen-14 NMR. <i>Journal of Magnetic Resonance</i> , 2010, 202, 57-63.	1.2	39
72	Solid-state nitrogen-14 nuclear magnetic resonance enhanced by dynamic nuclear polarization using a gyrotron. <i>Journal of Magnetic Resonance</i> , 2010, 205, 177-179.	1.2	38

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73	Surface Enhanced NMR Spectroscopy by Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2010, 132, 15459-15461.	6.6	488
74	Kinetics of Yttrium ³⁺ Ligand Complexation Monitored Using Hyperpolarized ⁸⁹ Y as a Model for Gadolinium in Contrast Agents. Journal of the American Chemical Society, 2010, 132, 5006-5007.	6.6	48
75	Proton hyperpolarisation preserved in long-lived states. Chemical Communications, 2010, 46, 8192.	2.2	55
76	Long-lived states to sustain hyperpolarized magnetization. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18469-18473.	3.3	173
77	High-Resolution NMR in Magnetic Fields with Unknown Spatiotemporal Variations. Science, 2009, 324, 1693-1697.	6.0	72
78	Cross-encoded magnetic resonance imaging in inhomogeneous fields. Journal of Magnetic Resonance, 2009, 201, 199-204.	1.2	14
79	Proton NMR of ¹⁵ N-Choline Metabolites Enhanced by Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2009, 131, 16014-16015.	6.6	107
80	Diffusion Coefficients of Biomolecules Using Long-Lived Spin States. Journal of the American Chemical Society, 2009, 131, 7498-7499.	6.6	78
81	Measurement of Slow Diffusion Coefficients of Molecules with Arbitrary Scalar Couplings via Long-Lived Spin States. ChemPhysChem, 2008, 9, 2414-2419.	1.0	47
82	Coherence transfer between spin nuclei and nitrogen-14 in solids. Journal of Magnetic Resonance, 2008, 190, 160-164.	1.2	41
83	Evidence for Dynamics on a 100 ns Time Scale from Single- and Double-Quantum Nitrogen-14 NMR in Solid Peptides. Journal of the American Chemical Society, 2008, 130, 10850-10851.	6.6	31
84	Molecular properties determined from the relaxation of long-lived spin states. Journal of Chemical Physics, 2007, 127, 134112.	1.2	58
85	Singlet-State Exchange NMR Spectroscopy for the Study of Very Slow Dynamic Processes. Journal of the American Chemical Society, 2007, 129, 328-334.	6.6	167
86	Indirect Detection of Nitrogen-14 in Solid-State NMR Spectroscopy. ChemPhysChem, 2007, 8, 1363-1374.	1.0	56
87	Proton-detected nitrogen-14 NMR by recoupling of heteronuclear dipolar interactions using symmetry-based sequences. Chemical Physics Letters, 2007, 445, 1-5.	1.2	72
88	Measuring fast hydrogen exchange rates by NMR spectroscopy. Journal of Magnetic Resonance, 2007, 184, 108-113.	1.2	37
89	Nitrogen-14 NMR Spectroscopy Using Residual Dipolar Splittings in Solids. Journal of the American Chemical Society, 2006, 128, 7706-7707.	6.6	117
90	Indirect detection of nitrogen-14 in solids via protons by nuclear magnetic resonance spectroscopy. Journal of Magnetic Resonance, 2006, 182, 168-172.	1.2	108

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91	Cross polarization from spins $I=1/2$ to spins $S=1$ in nuclear magnetic resonance with magic angle sample spinning. <i>Journal of Chemical Physics</i> , 2006, 124, 194311.	1.2	5
92	High-Resolution NMR Spectroscopy in Solids by Truly Magic-Angle Spinning. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 2935-2938.	7.2	38
93	Multiple-Quantum Filtered Xenon-131 NMR as a Surface Probe. <i>Physical Review Letters</i> , 1998, 80, 1398-1401.	2.9	32
94	Measurement of Cross-Relaxation between Amide Protons in ^{15}N -Enriched Proteins with Suppression of Spin Diffusion. <i>Journal of the American Chemical Society</i> , 1996, 118, 3531-3532.	6.6	23
95	Coherence transfer in three-level systems: Controlled violation of adiabaticity and antiparallel double resonant irradiation. <i>Journal of Chemical Physics</i> , 1995, 103, 136-143.	1.2	7
96	On the use of a slice-selective 270° self-refocusing Gaussian pulse for magnetic resonance imaging: Comments on the note by D. M. Doddrell et al. <i>Magnetic Resonance in Medicine</i> , 1991, 19, 461-463.	1.9	3
97	Gaussian pulse cascades: New analytical functions for rectangular selective inversion and in-phase excitation in NMR. <i>Chemical Physics Letters</i> , 1990, 165, 469-476.	1.2	323
98	Modern NMR Pulse Experiments: A Graphical Description of the Evolution of Spin Systems. <i>Angewandte Chemie International Edition in English</i> , 1990, 29, 374-383.	4.4	21
99	Self-refocusing 270° gaussian pulses for slice selection without gradient reversal in magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 1989, 10, 273-281.	1.9	17
100	Product operator formalism for the description of NMR pulse experiments. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 1984, 16, 163-192.	3.9	1,012
101	Natural abundance nitrogen-15 NMR by enhanced heteronuclear spectroscopy. <i>Chemical Physics Letters</i> , 1980, 69, 185-189.	1.2	2,457