

Sami Jannin

List of Publications by Year in descending order

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78
papers

3,441
citations

109137

35
h-index

149479

56
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85
all docs

85
docs citations

85
times ranked

1671
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyperpolarized NMR Spectroscopy: <i>d</i> -DNP, PHIP, and SABRE Techniques. Chemistry - an Asian Journal, 2018, 13, 1857-1871.	1.7	180
2	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
3	Design and performance of a DNP prepolarizer coupled to a rodent MRI scanner. Concepts in Magnetic Resonance Part B, 2007, 31B, 255-269.	0.3	172
4	Boosting Dissolution Dynamic Nuclear Polarization by Cross Polarization. Journal of Physical Chemistry Letters, 2013, 4, 111-114.	2.1	116
5	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
6	High field dynamic nuclear polarization at 6.7T: Carbon-13 polarization above 70% within 20min. Chemical Physics Letters, 2012, 549, 99-102.	1.2	107
7	A 140GHz prepolarizer for dissolution dynamic nuclear polarization. Journal of Chemical Physics, 2008, 128, 241102.	1.2	98
8	Feasibility of in vivo ¹⁵ N MRS detection of hyperpolarized ¹⁵ N labeled choline in rats. Physical Chemistry Chemical Physics, 2010, 12, 5818.	1.3	96
9	Hybrid polarizing solids for pure hyperpolarized liquids through dissolution dynamic nuclear polarization. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14693-14697.	3.3	93
10	Dynamic nuclear polarization of small labelled molecules in frozen water-alcohol solutions. Journal Physics D: Applied Physics, 2008, 41, 155506.	1.3	90
11	Scavenging Free Radicals To Preserve Enhancement and Extend Relaxation Times in NMR using Dynamic Nuclear Polarization. Angewandte Chemie - International Edition, 2010, 49, 6182-6185.	7.2	89
12	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. Analyst, The, 2015, 140, 5860-5863.	1.7	87
13	Transportable hyperpolarized metabolites. Nature Communications, 2017, 8, 13975.	5.8	86
14	Microwave frequency modulation to enhance Dissolution Dynamic Nuclear Polarization. Chemical Physics Letters, 2014, 602, 63-67.	1.2	81
15	A magnetic tunnel to shelter hyperpolarized fluids. Review of Scientific Instruments, 2015, 86, 024101.	0.6	77
16	Application and methodology of dissolution dynamic nuclear polarization in physical, chemical and biological contexts. Journal of Magnetic Resonance, 2019, 305, 41-50.	1.2	76
17	Fractional Spin-Labeling of Polymers for Enhancing NMR Sensitivity by Solvent-Free Dynamic Nuclear Polarization. ChemPhysChem, 2011, 12, 2929-2932.	1.0	67
18	Dynamic Nuclear Polarization Opens New Perspectives for NMR Spectroscopy in Analytical Chemistry. Analytical Chemistry, 2018, 90, 3639-3650.	3.2	67

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19	Drug Screening Boosted by Hyperpolarized Long-Lived States in NMR. <i>ChemMedChem</i> , 2014, 9, 2509-2515.	1.6	63
20	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
21	Hyperpolarized Water to Study Protein-Ligand Interactions. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1674-1678.	2.1	62
22	Highly Repeatable Dissolution Dynamic Nuclear Polarization for Heteronuclear NMR Metabolomics. <i>Analytical Chemistry</i> , 2016, 88, 6179-6183.	3.2	57
23	Proton hyperpolarisation preserved in long-lived states. <i>Chemical Communications</i> , 2010, 46, 8192.	2.2	55
24	Hyperpolarized lithium-6 as a sensor of nanomolar contrast agents. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 1489-1493.	1.9	53
25	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
26	Kinetics of Yttrium-Ligand Complexation Monitored Using Hyperpolarized ⁸⁹ Y as a Model for Gadolinium in Contrast Agents. <i>Journal of the American Chemical Society</i> , 2010, 132, 5006-5007.	6.6	48
27	Cross Polarization for Dissolution Dynamic Nuclear Polarization Experiments at Readily Accessible Temperatures 1.2-4.2 K. <i>Applied Magnetic Resonance</i> , 2012, 43, 107-117.	0.6	48
28	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
29	Relaxometry of insensitive nuclei: Optimizing dissolution dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2011, 210, 137-140.	1.2	47
30	Dynamic Nuclear Polarization by Thermal Mixing Under Partial Saturation. <i>Applied Magnetic Resonance</i> , 2012, 43, 59-68.	0.6	44
31	Hyperpolarized NMR Metabolomics at Natural ¹³ C Abundance. <i>Analytical Chemistry</i> , 2020, 92, 14867-14871.	3.2	44
32	Microwave-gated dynamic nuclear polarization. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30530-30535.	1.3	42
33	Principles of Operation of a DNP Prepolarizer Coupled to a Rodent MRI Scanner. <i>Applied Magnetic Resonance</i> , 2008, 34, 313-319.	0.6	40
34	Producing over 100ml of highly concentrated hyperpolarized solution by means of dissolution DNP. <i>Journal of Magnetic Resonance</i> , 2008, 194, 152-155.	1.2	39
35	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
36	Hyperpolarizing Gases via Dynamic Nuclear Polarization and Sublimation. <i>Physical Review Letters</i> , 2010, 105, 018104.	2.9	35

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37	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
38	A cryogen-consumption-free system for dynamic nuclear polarization at 9.4â€T. <i>Journal of Magnetic Resonance</i> , 2018, 294, 115-121.	1.2	34
39	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
40	Filterable Agents for Hyperpolarization of Water, Metabolites, and Proteins. <i>Chemistry - A European Journal</i> , 2016, 22, 14696-14700.	1.7	31
41	Optimizing dissolution dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2016, 264, 13-21.	1.2	30
42	Practical dissolution dynamic nuclear polarization. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2021, 126-127, 59-100.	3.9	30
43	Challenges in preparing, preserving and detecting para-water in bulk: overcoming proton exchange and other hurdles. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 26819-26827.	1.3	29
44	Hyperpolarized <i>para</i> -Ethanol. <i>Journal of Physical Chemistry B</i> , 2015, 119, 4048-4052.	1.2	26
45	Direct observation of hyperpolarization breaking through the spin diffusion barrier. <i>Science Advances</i> , 2021, 7, .	4.7	26
46	Tailored Polarizing Hybrid Solids with Nitroxide Radicals Localized in Mesostructured Silica Walls. <i>Helvetica Chimica Acta</i> , 2017, 100, e1700101.	1.0	24
47	Tailored Microstructured Hyperpolarizing Matrices for Optimal Magnetic Resonance Imaging. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7453-7457.	7.2	24
48	Hyperpolarized long-lived nuclear spin states in monodeuterated methyl groups. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9755-9759.	1.3	23
49	Porous functionalized polymers enable generating and transporting hyperpolarized mixtures of metabolites. <i>Nature Communications</i> , 2021, 12, 4695.	5.8	23
50	Ultra High-Resolution NMR: Sustained Induction Decays of Long-Lived Coherences. <i>Journal of the American Chemical Society</i> , 2011, 133, 15644-15649.	6.6	22
51	Overhauser effects in non-conducting solids at 1.2â€K. <i>Journal of Magnetic Resonance</i> , 2018, 286, 138-142.	1.2	22
52	Ultrahigh-Resolution Magnetic Resonance in Inhomogeneous Magnetic Fields: Two-Dimensional Long-Lived-Coherence Correlation Spectroscopy. <i>Physical Review Letters</i> , 2012, 109, 047602.	2.9	21
53	An apparatus for pulsed ESR and DNP experiments using optically excited triplet states down to liquid helium temperatures. <i>Journal of Magnetic Resonance</i> , 2013, 234, 58-66.	1.2	21
54	Cubic three-dimensional hybrid silica solids for nuclear hyperpolarization. <i>Chemical Science</i> , 2016, 7, 6846-6850.	3.7	19

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55	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
56	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
57	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
58	Transport of hyperpolarized samples in dissolution-DNP experiments. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 13696-13705.	1.3	16
59	An automated system for fast transfer and injection of hyperpolarized solutions. <i>Journal of Magnetic Resonance Open</i> , 2021, 8-9, 100017.	0.5	14
60	Tailored Microstructured Hyperpolarizing Matrices for Optimal Magnetic Resonance Imaging. <i>Angewandte Chemie</i> , 2018, 130, 7575-7579.	1.6	13
61	Dissolution dynamic nuclear polarization of deuterated molecules enhanced by cross-polarization. <i>Journal of Chemical Physics</i> , 2016, 145, 194203.	1.2	12
62	Magnetotransport properties depending on the nanostructure of Fe ₃ O ₄ nanowires. <i>Journal of Physics Condensed Matter</i> , 2006, 18, 6085-6093.	0.7	10
63	A spinning thermometer to monitor microwave heating and glass transitions in dynamic nuclear polarization. <i>Magnetic Resonance in Chemistry</i> , 2011, 49, 689-692.	1.1	10
64	Dipolar order mediated ¹ H- ¹³ C cross-polarization for dissolution-dynamic nuclear polarization. <i>Magnetic Resonance</i> , 2020, 1, 89-96.	0.8	9
65	NMR of Insensitive Nuclei Enhanced by Dynamic Nuclear Polarization. <i>Chimia</i> , 2011, 65, 260-263.	0.3	8
66	Cross polarization from ¹ H to quadrupolar ⁶ Li nuclei for dissolution DNP. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 24813-24817.	1.3	8
67	Spin Noise Detection of Nuclear Hyperpolarization at 1.2 K. <i>ChemPhysChem</i> , 2015, 16, 3859-3864.	1.0	8
68	Solid-state ¹ H spin polarimetry by ¹³ CH ₃ nuclear magnetic resonance. <i>Magnetic Resonance</i> , 2021, 2, 643-652.	0.8	7
69	Homocoupling for spectral simplification of carbon-13 enriched molecules in solution-state NMR enhanced by dissolution DNP. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 11480-11487.	1.3	6
70	Phenylazide Hybrid "Silica" Polarization Platform for Dynamic Nuclear Polarization at Cryogenic Temperatures. <i>Helvetica Chimica Acta</i> , 2017, 100, e1600122.	1.0	6
71	Pulse sequence and sample formulation optimization for dipolar order mediated ¹ H- ¹³ C cross-polarization. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9457-9465.	1.3	6
72	Sample formulations for dissolution dynamic nuclear polarization. <i>Chemical Physics Reviews</i> , 2021, 2, 041308.	2.6	4

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73	Dynamic Nuclear Polarization and Other Magnetic Ideas at EPFL. <i>Chimia</i> , 2012, 66, 734.	0.3	3
74	Boosting dissolution-dynamic nuclear polarization by multiple-step dipolar order mediated $^1\text{H}\hat{\text{t}}^1\text{C}$ cross-polarization. <i>Journal of Magnetic Resonance Open</i> , 2021, 8-9, 100018.	0.5	3
75	Simple and cost-effective cross-polarization experiments under dissolution-dynamic nuclear polarization conditions with a 3D-printed $^1\text{H}\text{-}^{13}\text{C}$ background-free radiofrequency coil. <i>Journal of Magnetic Resonance Open</i> , 2022, 10-11, 100033.	0.5	3
76	Frozen water NMR lineshape analysis enables absolute polarization quantification. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 5956-5964.	1.3	3
77	Protonation tuned dipolar order mediated $^1\text{H}\hat{\text{t}}^1\text{C}$ cross-polarization for dissolution-dynamic nuclear polarization experiments. <i>Solid State Nuclear Magnetic Resonance</i> , 2021, 116, 101762.	1.5	2
78	Extending Timescales and Narrowing Linewidths in NMR. <i>Chimia</i> , 2011, 65, 652.	0.3	0