

Alexander B Barnes

List of Publications by Year in descending order

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44
papers

1,807
citations

361413

20
h-index

265206

42
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docs citations

44
times ranked

1278
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous-Wave Operation of a Frequency-Tunable 460-GHz Second-Harmonic Gyrotron for Enhanced Nuclear Magnetic Resonance. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 1150-1159.	1.3	216
2	THz Dynamic Nuclear Polarization NMR. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2011, 1, 145-163.	3.1	161
3	High-Field Dynamic Nuclear Polarization with High-Spin Transition Metal Ions. <i>Journal of the American Chemical Society</i> , 2011, 133, 5648-5651.	13.7	119
4	Cryogenic sample exchange NMR probe for magic angle spinning dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2009, 198, 261-270.	2.1	108
5	Solid effect dynamic nuclear polarization and polarization pathways. <i>Journal of Chemical Physics</i> , 2012, 136, 015101.	3.0	99
6	Solid-State Photodimerization Kinetics of $\hat{1}\pm$ -trans-Cinnamic Acid to $\hat{1}\pm$ -Truxillic Acid Studied via Solid-State NMR. <i>Journal of Physical Chemistry B</i> , 2006, 110, 6270-6273.	2.6	92
7	Resolution and polarization distribution in cryogenic DNP/MAS experiments. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5861.	2.8	87
8	A 250 GHz gyrotron with a 3 GHz tuning bandwidth for dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2012, 221, 147-153.	2.1	87
9	Dynamic nuclear polarization at 700MHz/460GHz. <i>Journal of Magnetic Resonance</i> , 2012, 224, 1-7.	2.1	85
10	Microwave field distribution in a magic angle spinning dynamic nuclear polarization NMR probe. <i>Journal of Magnetic Resonance</i> , 2011, 210, 16-23.	2.1	73
11	Dynamic Nuclear Polarization Study of Inhibitor Binding to the M2 ₆₀ Proton Transporter from Influenza A. <i>Biochemistry</i> , 2013, 52, 2774-2782.	2.5	66
12	Peptide and Protein Dynamics and Low-Temperature/DNP Magic Angle Spinning NMR. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4997-5006.	2.6	60
13	Dynamic Nuclear Polarization Nuclear Magnetic Resonance in Human Cells Using Fluorescent Polarizing Agents. <i>Biochemistry</i> , 2018, 57, 4741-4746.	2.5	58
14	Electron Decoupling with Dynamic Nuclear Polarization in Rotating Solids. <i>Journal of the American Chemical Society</i> , 2017, 139, 6310-6313.	13.7	57
15	Frequency-agile gyrotron for electron decoupling and pulsed dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2018, 289, 45-54.	2.1	47
16	Magic angle spinning spheres. <i>Science Advances</i> , 2018, 4, eaau1540.	10.3	40
17	Frequency swept microwaves for hyperfine decoupling and time domain dynamic nuclear polarization. <i>Solid State Nuclear Magnetic Resonance</i> , 2015, 72, 79-89.	2.3	36
18	Combinations of isoform-targeted histone deacetylase inhibitors and bryostatins display remarkable potency to activate latent HIV without global T-cell activation. <i>Scientific Reports</i> , 2017, 7, 7456.	3.3	32

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19	Magic angle spinning NMR below 6â€°K with a computational fluid dynamics analysis of fluid flow and temperature gradients. <i>Journal of Magnetic Resonance</i> , 2018, 286, 1-9.	2.1	32
20	REDOR NMR Reveals Multiple Conformers for a Protein Kinase C Ligand in a Membrane Environment. <i>ACS Central Science</i> , 2018, 4, 89-96.	11.3	28
21	Four millimeter spherical rotors spinning at 28â€°kHz with double-saddle coils for cross polarization NMR. <i>Journal of Magnetic Resonance</i> , 2019, 303, 1-6.	2.1	21
22	Frequency-chirped dynamic nuclear polarization with magic angle spinning using a frequency-agile gyrotron. <i>Journal of Magnetic Resonance</i> , 2019, 308, 106586.	2.1	18
23	Pulsed Electron Decoupling and Strategies for Time Domain Dynamic Nuclear Polarization with Magic Angle Spinning. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5539-5547.	4.6	17
24	Dynamic Nuclear Polarization with Electron Decoupling in Intact Human Cells and Cell Lysates. <i>Journal of Physical Chemistry B</i> , 2020, 124, 2323-2330.	2.6	16
25	A versatile custom cryostat for dynamic nuclear polarization supports multiple cryogenic magic angle spinning transmission line probes. <i>Journal of Magnetic Resonance</i> , 2018, 297, 23-32.	2.1	15
26	Instrumentation for cryogenic magic angle spinning dynamic nuclear polarization using 90 L of liquid nitrogen per day. <i>Journal of Magnetic Resonance</i> , 2017, 283, 71-78.	2.1	14
27	In Situ Detection of Endogenous HIV Activation by Dynamic Nuclear Polarization NMR and Flow Cytometry. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4649.	4.1	13
28	Electron decoupling with cross polarization and dynamic nuclear polarization below 6â€°K. <i>Journal of Magnetic Resonance</i> , 2018, 295, 1-5.	2.1	12
29	High-resolution solid-state NMR structure of Alanyl-Prolyl-Glycine. <i>Journal of Magnetic Resonance</i> , 2009, 200, 95-100.	2.1	11
30	Electron Decoupling with Chirped Microwave Pulses for Rapid Signal Acquisition and Electron Saturation Recovery. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7259-7262.	13.8	11
31	Biomolecular Perturbations in In-Cell Dynamic Nuclear Polarization Experiments. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 743829.	3.5	10
32	Continuous-Wave Operation of a Frequency-Tunable 460-GHz Second-Harmonic Gyrotron for Enhanced Nuclear Magnetic Resonance. <i>IEEE Transactions on Electron Devices</i> , 2010, 38, 1150-1159.	3.0	10
33	Magic angle spinning NMR with metallized rotors as cylindrical microwave resonators. <i>Magnetic Resonance in Chemistry</i> , 2018, 56, 831-835.	1.9	9
34	Characterization of frequency-chirped dynamic nuclear polarization in rotating solids. <i>Journal of Magnetic Resonance</i> , 2020, 313, 106702.	2.1	8
35	Highly stable magic angle spinning spherical rotors. <i>Magnetic Resonance</i> , 2020, 1, 97-103.	1.9	8
36	Sensitivity analysis of magic angle spinning dynamic nuclear polarization below 6â€°K. <i>Journal of Magnetic Resonance</i> , 2019, 305, 51-57.	2.1	7

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37	Perspectives on microwave coupling into cylindrical and spherical rotors with dielectric lenses for magic angle spinning dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2019, 308, 106518.	2.1	6
38	330 GHz helically corrugated waveguide. , 2011, , .		4
39	Electron Decoupling with Chirped Microwave Pulses for Rapid Signal Acquisition and Electron Saturation Recovery. <i>Angewandte Chemie</i> , 2019, 131, 7337-7340.	2.0	4
40	Fast electron paramagnetic resonance magic angle spinning simulations using analytical powder averaging techniques. <i>Journal of Chemical Physics</i> , 2019, 151, 114107.	3.0	3
41	Two millimeter diameter spherical rotors spinning at 68 kHz for MAS NMR. <i>Journal of Magnetic Resonance Open</i> , 2021, 8-9, 100015.	1.1	3
42	Setting the magic angle using single crystal sapphire rotors. <i>Journal of Magnetic Resonance Open</i> , 2021, 8-9, 100019.	1.1	3
43	Pneumatic angle adjustment for magic angle spinning spherical rotors. <i>Journal of Magnetic Resonance Open</i> , 2021, 6-7, 100014.	1.1	1
44	The Clebschâ€“Gordan Coefficients and Their Application to Magnetic Resonance. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2022, 2022, 1-18.	0.5	0