

Aaron M Coffey

List of Publications by Year in descending order

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52
papers

3,414
citations

126907

33
h-index

161849

54
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55
all docs

55
docs citations

55
times ranked

1170
citing authors

#	ARTICLE	IF	CITATIONS
1	Microtesla SABRE Enables 10% Nitrogen-15 Nuclear Spin Polarization. Journal of the American Chemical Society, 2015, 137, 1404-1407.	13.7	275
2	Near-unity nuclear polarization with an open-source ¹²⁹ Xe hyperpolarizer for NMR and MRI. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14150-14155.	7.1	193
3	¹⁵ N Hyperpolarization by Reversible Exchange Using SABRE-SHEATH. Journal of Physical Chemistry C, 2015, 119, 8786-8797.	3.1	192
4	LIGHT-SABRE enables efficient in-magnet catalytic hyperpolarization. Journal of Magnetic Resonance, 2014, 248, 23-26.	2.1	151
5	The Feasibility of Formation and Kinetics of NMR Signal Amplification by Reversible Exchange (SABRE) at High Magnetic Field (9.4 T). Journal of the American Chemical Society, 2014, 136, 3322-3325.	13.7	148
6	NMR Hyperpolarization Techniques of Gases. Chemistry - A European Journal, 2017, 23, 725-751.	3.3	140
7	Irreversible Catalyst Activation Enables Hyperpolarization and Water Solubility for NMR Signal Amplification by Reversible Exchange. Journal of Physical Chemistry B, 2014, 118, 13882-13889.	2.6	131
8	Over 20% ¹⁵ N 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
9	¹⁵ N Hyperpolarization of Imidazole- ¹⁵ N ₂ for Magnetic Resonance pH Sensing via SABRE-SHEATH. ACS Sensors, 2016, 1, 640-644.	7.8	111
10	Low-field MRI can be more sensitive than high-field MRI. Journal of Magnetic Resonance, 2013, 237, 169-174.	2.1	103
11	A pulsed injection parahydrogen generator and techniques for quantifying enrichment. Journal of Magnetic Resonance, 2012, 214, 258-262.	2.1	95
12	Heterogeneous Solution NMR Signal Amplification by Reversible Exchange. Angewandte Chemie - International Edition, 2014, 53, 7495-7498.	13.8	90
13	Hyperpolarization of "Neat" Liquids by NMR Signal Amplification by Reversible Exchange. Journal of Physical Chemistry Letters, 2015, 6, 1961-1967.	4.6	85
14	Open-Source Automated Parahydrogen Hyperpolarizer for Molecular Imaging Using ¹³ C Metabolic Contrast Agents. Analytical Chemistry, 2016, 88, 8279-8288.	6.5	84
15	Parahydrogen Induced Polarization of 1- ¹³ C-Phospholactate- <i>d</i> ₂ for Biomedical Imaging with >30,000,000-fold NMR Signal Enhancement in Water. Analytical Chemistry, 2014, 86, 5601-5605.	6.5	83
16	<i>In Situ</i> Detection of PHIP at 48 mT: Demonstration Using a Centrally Controlled Polarizer. Journal of the American Chemical Society, 2011, 133, 97-101.	13.7	75
17	A 3D-Printed High Power Nuclear Spin Polarizer. Journal of the American Chemical Society, 2014, 136, 1636-1642.	13.7	72
18	High-Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO ₂ Heterogeneous Catalyst. Chemistry - A European Journal, 2014, 20, 11636-11639.	3.3	72

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19	Propane- <i>d</i> ₆ Heterogeneously Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28234-28243.	3.1	71
20	PASADENA Hyperpolarized ¹³ C Phospholactate. <i>Journal of the American Chemical Society</i> , 2012, 134, 3957-3960.	13.7	70
21	Long-Lived Spin States for Low-Field Hyperpolarized Gas MRI. <i>Chemistry - A European Journal</i> , 2014, 20, 14629-14632.	3.3	65
22	Aqueous NMR Signal Enhancement by Reversible Exchange in a Single Step Using Water-Soluble Catalysts. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12149-12156.	3.1	63
23	Nanoscale Catalysts for NMR Signal Enhancement by Reversible Exchange. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7525-7533.	3.1	61
24	In Situ and Ex Situ Low-Field NMR Spectroscopy and MRI Endowed by SABRE Hyperpolarization. <i>ChemPhysChem</i> , 2014, 15, 4100-4107.	2.1	58
25	XeNA: An automated "open-source" ¹²⁹ Xe hyperpolarizer for clinical use. <i>Magnetic Resonance Imaging</i> , 2014, 32, 541-550.	1.8	57
26	Efficient Synthesis of Molecular Precursors for Para-Hydrogen-Induced Polarization of Ethyl Acetate- ¹³ C and Beyond. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 6071-6074.	13.8	53
27	Efficient Transformation of Parahydrogen Spin Order into Heteronuclear Magnetization. <i>Journal of Physical Chemistry B</i> , 2013, 117, 1219-1224.	2.6	51
28	Aqueous, Heterogeneous <i>para</i> -Hydrogen-Induced ¹⁵ N Polarization. <i>Journal of Physical Chemistry C</i> , 2017, 121, 15304-15309.	3.1	40
29	High-Resolution Low-Field Molecular Magnetic Resonance Imaging of Hyperpolarized Liquids. <i>Analytical Chemistry</i> , 2014, 86, 9042-9049.	6.5	39
30	Temperature-Ramped ¹²⁹ Xe Spin-Exchange Optical Pumping. <i>Analytical Chemistry</i> , 2014, 86, 8206-8212.	6.5	37
31	NMR Spin-Lock Induced Crossing (SLIC) dispersion and long-lived spin states of gaseous propane at low magnetic field (0.05 T). <i>Journal of Magnetic Resonance</i> , 2017, 276, 78-85.	2.1	36
32	NMR Signal Amplification by Reversible Exchange of Sulfur-Heterocyclic Compounds Found In Petroleum. <i>ChemistrySelect</i> , 2016, 1, 2552-2555.	1.5	34
33	Multidimensional Mapping of Spin-Exchange Optical Pumping in Clinical-Scale Batch-Mode ¹²⁹ Xe Hyperpolarizers. <i>Journal of Physical Chemistry B</i> , 2014, 118, 4809-4816.	2.6	32
34	2D Mapping of NMR Signal Enhancement and Relaxation for Heterogeneously Hyperpolarized Propane Gas. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10038-10046.	3.1	31
35	A large volume double channel ¹ H-X RF probe for hyperpolarized magnetic resonance at 0.0475T. <i>Journal of Magnetic Resonance</i> , 2012, 220, 94-101.	2.1	27
36	Demonstration of Heterogeneous Parahydrogen Induced Polarization Using Hyperpolarized Agent Migration from Dissolved Rh(I) Complex to Gas Phase. <i>Analytical Chemistry</i> , 2014, 86, 6192-6196.	6.5	27

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37	Robust Imidazole- ¹⁵ N ₂ Synthesis for High-Resolution Low-Field (0.05 T) ¹⁵ N-Hyperpolarized NMR Spectroscopy. <i>ChemistrySelect</i> , 2017, 2, 4478-4483.	1.5	27
38	High-resolution hyperpolarized in vivo metabolic ¹³ C spectroscopy at low magnetic field (48.7 mT) following murine tail-vein injection. <i>Journal of Magnetic Resonance</i> , 2017, 281, 246-252.	2.1	26
39	Parahydrogen-Induced Polarization with a Rh-Based Monodentate Ligand in Water. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3281-3285.	4.6	25
40	A pulse programmable parahydrogen polarizer using a tunable electromagnet and dual channel NMR spectrometer. <i>Journal of Magnetic Resonance</i> , 2017, 284, 115-124.	2.1	24
41	Sub-second proton imaging of ¹³ C hyperpolarized contrast agents in water. <i>Contrast Media and Molecular Imaging</i> , 2014, 9, 333-341.	0.8	22
42	NMR SLIC Sensing of Hydrogenation Reactions Using Parahydrogen in Low Magnetic Fields. <i>Journal of Physical Chemistry C</i> , 2016, 120, 29098-29106.	3.1	21
43	Batch-Mode Clinical-Scale Optical Hyperpolarization of Xenon-129 Using an Aluminum Jacket with Rapid Temperature Ramping. <i>Analytical Chemistry</i> , 2020, 92, 4309-4316.	6.5	19
44	Efficient Synthesis of Molecular Precursors for Parahydrogen-Induced Polarization of Ethyl Acetate- ¹³ C and Beyond. <i>Angewandte Chemie</i> , 2016, 128, 6175-6178.	2.0	18
45	XeUS: A second-generation automated open-source batch-mode clinical-scale hyperpolarizer. <i>Journal of Magnetic Resonance</i> , 2020, 319, 106813.	2.1	16
46	High-Pressure Clinical-Scale 87% Parahydrogen Generator. <i>Analytical Chemistry</i> , 2020, 92, 15280-15284.	6.5	16
47	Efficient Batch-Mode Parahydrogen-Induced Polarization of Propane. <i>ChemPhysChem</i> , 2016, 17, 3395-3398.	2.1	13
48	High Xe density, high photon flux, stopped-flow spin-exchange optical pumping: Simulations versus experiments. <i>Journal of Magnetic Resonance</i> , 2020, 312, 106686.	2.1	12
49	Toward a preoperative planning tool for brain tumor resection therapies. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2013, 8, 87-97.	2.8	7
50	Helium-rich mixtures for improved batch-mode clinical-scale spin-exchange optical pumping of Xenon-129. <i>Journal of Magnetic Resonance</i> , 2020, 315, 106739.	2.1	6
51	Frontispiece: NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, .	3.3	2
52	NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, 724-724.	3.3	1