Aaron M Coffey

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/10898727/publications.pdf

Version: 2024-02-01

52 papers	3,414 citations	126907 33 h-index	161849 54 g-index
55 all docs	55 docs citations	55 times ranked	1170 citing authors

#	Article	IF	Citations
1	XeUS: A second-generation automated open-source batch-mode clinical-scale hyperpolarizer. Journal of Magnetic Resonance, 2020, 319, 106813.	2.1	16
2	High-Pressure Clinical-Scale 87% Parahydrogen Generator. Analytical Chemistry, 2020, 92, 15280-15284.	6.5	16
3	Batch-Mode Clinical-Scale Optical Hyperpolarization of Xenon-129 Using an Aluminum Jacket with Rapid Temperature Ramping. Analytical Chemistry, 2020, 92, 4309-4316.	6.5	19
4	High Xe density, high photon flux, stopped-flow spin-exchange optical pumping: Simulations versus experiments. Journal of Magnetic Resonance, 2020, 312, 106686.	2.1	12
5	Helium-rich mixtures for improved batch-mode clinical-scale spin-exchange optical pumping of Xenon-129. Journal of Magnetic Resonance, 2020, 315, 106739.	2.1	6
6	NMR Hyperpolarization Techniques of Gases. Chemistry - A European Journal, 2017, 23, 724-724.	3.3	1
7	NMR Spin-Lock Induced Crossing (SLIC) dispersion and long-lived spin states of gaseous propane at low magnetic field (0.05 T). Journal of Magnetic Resonance, 2017, 276, 78-85.	2.1	36
8	2D Mapping of NMR Signal Enhancement and Relaxation for Heterogeneously Hyperpolarized Propane Gas. Journal of Physical Chemistry C, 2017, 121, 10038-10046.	3.1	31
9	Frontispiece: NMR Hyperpolarization Techniques of Gases. Chemistry - A European Journal, 2017, 23, .	3.3	2
10	High-resolution hyperpolarized in vivo metabolic 13C spectroscopy at low magnetic field (48.7 mT) following murine tail-vein injection. Journal of Magnetic Resonance, 2017, 281, 246-252.	2.1	26
11	Robust Imidazoleâ€¹⁵N₂ Synthesis for Highâ€Resolution Lowâ€Field (0.05 T) ¹⁵NÂHyperpolarized NMR Spectroscopy. ChemistrySelect, 2017, 2, 4478-4483.	1.5	27
12	A pulse programmable parahydrogen polarizer using a tunable electromagnet and dual channel NMR spectrometer. Journal of Magnetic Resonance, 2017, 284, 115-124.	2.1	24
13	Aqueous, Heterogeneous para-Hydrogen-Induced ¹⁵N Polarization. Journal of Physical Chemistry C, 2017, 121, 15304-15309.	3.1	40
14	NMR Hyperpolarization Techniques of Gases. Chemistry - A European Journal, 2017, 23, 725-751.	3.3	140
15	¹⁵N Hyperpolarization of Imidazole-¹⁵N₂ for Magnetic Resonance pH Sensing via SABRE-SHEATH. ACS Sensors, 2016, 1, 640-644.	7.8	111
16	Open-Source Automated Parahydrogen Hyperpolarizer for Molecular Imaging Using ¹³C Metabolic Contrast Agents. Analytical Chemistry, 2016, 88, 8279-8288.	6.5	84
17	NMR Signal Amplification by Reversible Exchange of Sulfurâ€Heterocyclic Compounds Found In Petroleum. ChemistrySelect, 2016, 1, 2552-2555.	1.5	34
18	Efficient Batchâ€Mode Parahydrogenâ€Induced Polarization of Propane. ChemPhysChem, 2016, 17, 3395-3398.	2.1	13

#	Article	IF	Citations
19	NMR SLIC Sensing of Hydrogenation Reactions Using Parahydrogen in Low Magnetic Fields. Journal of Physical Chemistry C, 2016, 120, 29098-29106.	3.1	21
20	Efficient Synthesis of Molecular Precursors for Paraâ€Hydrogenâ€Induced Polarization of Ethyl Acetateâ€1â€¹³C and Beyond. Angewandte Chemie - International Edition, 2016, 55, 6071-6074.	13.8	53
21	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
22	Aqueous NMR Signal Enhancement by Reversible Exchange in a Single Step Using Water-Soluble Catalysts. Journal of Physical Chemistry C, 2016, 120, 12149-12156.	3.1	63
23	Efficient Synthesis of Molecular Precursors for Paraâ€Hydrogenâ€Induced Polarization of Ethyl Acetateâ€1â€¹³C and Beyond. Angewandte Chemie, 2016, 128, 6175-6178.	2.0	18
24	Microtesla SABRE Enables 10% Nitrogen-15 Nuclear Spin Polarization. Journal of the American Chemical Society, 2015, 137, 1404-1407.	13.7	275
25	Nanoscale Catalysts for NMR Signal Enhancement by Reversible Exchange. Journal of Physical Chemistry C, 2015, 119, 7525-7533.	3.1	61
26	Hyperpolarization of â€œNeatâ€Liquids by NMR Signal Amplification by Reversible Exchange. Journal of Physical Chemistry Letters, 2015, 6, 1961-1967.	4.6	85
27	¹⁵N Hyperpolarization by Reversible Exchange Using SABRE-SHEATH. Journal of Physical Chemistry C, 2015, 119, 8786-8797.	3.1	192
28	Propane-d₆ Heterogeneously Hyperpolarized by Parahydrogen. Journal of Physical Chemistry C, 2014, 118, 28234-28243.	3.1	71
29	Subâ€second proton imaging of ¹³C hyperpolarized contrast agents in water. Contrast Media and Molecular Imaging, 2014, 9, 333-341.	0.8	22
30	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
31	A 3D-Printed High Power Nuclear Spin Polarizer. Journal of the American Chemical Society, 2014, 136, 1636-1642.	13.7	72
32	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
33	In Situ and Ex Situ Lowâ€Field NMR Spectroscopy and MRI Endowed by SABRE Hyperpolarization. ChemPhysChem, 2014, 15, 4100-4107.	2.1	58
34	Multidimensional Mapping of Spin-Exchange Optical Pumping in Clinical-Scale Batch-Mode 129Xe Hyperpolarizers. Journal of Physical Chemistry B, 2014, 118, 4809-4816.	2.6	32
35	Temperature-Ramped ¹²⁹Xe Spin-Exchange Optical Pumping. Analytical Chemistry, 2014, 86, 8206-8212.	6.5	37
36	LIGHT-SABRE enables efficient in-magnet catalytic hyperpolarization. Journal of Magnetic Resonance, 2014, 248, 23-26.	2.1	151

#	Article	IF	Citations
37	Parahydrogen Induced Polarization of 1-¹³C-Phospholactate-d₂ for Biomedical Imaging with >30,000,000-fold NMR Signal Enhancement in Water. Analytical Chemistry, 2014, 86, 5601-5605.	6.5	83
38	Longâ€Lived Spin States for Lowâ€Field Hyperpolarized Gas MRI. Chemistry - A European Journal, 2014, 20, 14629-14632.	3.3	65
39	High-Resolution Low-Field Molecular Magnetic Resonance Imaging of Hyperpolarized Liquids. Analytical Chemistry, 2014, 86, 9042-9049.	6.5	39
40	Heterogeneous Solution NMR Signal Amplification by Reversible Exchange. Angewandte Chemie - International Edition, 2014, 53, 7495-7498.	13.8	90
41	XeNA: An automated â€˜open-sourceâ€™ 129Xe hyperpolarizer for clinical use. Magnetic Resonance Imaging, 2014, 32, 541-550.	1.8	57
42	Highâ€Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO₂ Heterogeneous Catalyst. Chemistry - A European Journal, 2014, 20, 11636-11639.	3.3	72
43	Demonstration of Heterogeneous Parahydrogen Induced Polarization Using Hyperpolarized Agent Migration from Dissolved Rh(I) Complex to Gas Phase. Analytical Chemistry, 2014, 86, 6192-6196.	6.5	27
44	Low-field MRI can be more sensitive than high-field MRI. Journal of Magnetic Resonance, 2013, 237, 169-174.	2.1	103
45	Toward a preoperative planning tool for brain tumor resection therapies. International Journal of Computer Assisted Radiology and Surgery, 2013, 8, 87-97.	2.8	7
46	Efficient Transformation of Parahydrogen Spin Order into Heteronuclear Magnetization. Journal of Physical Chemistry B, 2013, 117, 1219-1224.	2.6	51
47	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
48	A large volume double channel 1Hâ€“X RF probe for hyperpolarized magnetic resonance at 0.0475T. Journal of Magnetic Resonance, 2012, 220, 94-101.	2.1	27
49	PASADENA Hyperpolarized ¹³C Phospholactate. Journal of the American Chemical Society, 2012, 134, 3957-3960.	13.7	70
50	Parahydrogen-Induced Polarization with a Rh-Based Monodentate Ligand in Water. Journal of Physical Chemistry Letters, 2012, 3, 3281-3285.	4.6	25
51	A pulsed injection parahydrogen generator and techniques for quantifying enrichment. Journal of Magnetic Resonance, 2012, 214, 258-262.	2.1	95
52	In Situ 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