

Eduard Y Chekmenev

List of Publications by Year in descending order

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184
papers

8,980
citations

34016

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85
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194
all docs

194
docs citations

194
times ranked

3378
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Cancer Metabolism by Imaging Hyperpolarized Nuclei: Prospects for Translation to Clinical Research. <i>Neoplasia</i> , 2011, 13, 81-97.	2.3	623
2	Microtesla SABRE Enables 10% Nitrogen-15 Nuclear Spin Polarization. <i>Journal of the American Chemical Society</i> , 2015, 137, 1404-1407.	6.6	275
3	Parahydrogen-Based Hyperpolarization for Biomedicine. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11140-11162.	7.2	251
4	NMR Hyperpolarization Techniques for Biomedicine. <i>Chemistry - A European Journal</i> , 2015, 21, 3156-3166.	1.7	247
5	Towards hyperpolarized ¹³ C-succinate imaging of brain cancer. <i>Journal of Magnetic Resonance</i> , 2007, 186, 150-155.	1.2	203
6	Near-unity nuclear polarization with an open-source ¹²⁹ Xe hyperpolarizer for NMR and MRI. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14150-14155.	3.3	193
7	Direct and cost-efficient hyperpolarization of long-lived nuclear spin states on universal ¹⁵ N ² -diazirine molecular tags. <i>Science Advances</i> , 2016, 2, e1501438.	4.7	193
8	¹⁵ N Hyperpolarization by Reversible Exchange Using SABRE-SHEATH. <i>Journal of Physical Chemistry C</i> , 2015, 119, 8786-8797.	1.5	192
9	Hyperpolarized NMR Spectroscopy: <i>d</i> -DNP, PHIP, and SABRE Techniques. <i>Chemistry - an Asian Journal</i> , 2018, 13, 1857-1871.	1.7	180
10	Using low-E resonators to reduce RF heating in biological samples for static solid-state NMR up to 900MHz. <i>Journal of Magnetic Resonance</i> , 2007, 185, 77-93.	1.2	172
11	PASADENA Hyperpolarization of Succinic Acid for MRI and NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2008, 130, 4212-4213.	6.6	170
12	LIGHT-SABRE enables efficient in-magnet catalytic hyperpolarization. <i>Journal of Magnetic Resonance</i> , 2014, 248, 23-26.	1.2	151
13	The Feasibility of Formation and Kinetics of NMR Signal Amplification by Reversible Exchange (SABRE) at High Magnetic Field (9.4 T). <i>Journal of the American Chemical Society</i> , 2014, 136, 3322-3325.	6.6	148
14	NMR Hyperpolarization Techniques of Gases. <i>Chemistry - A European Journal</i> , 2017, 23, 725-751.	1.7	140
15	Irreversible Catalyst Activation Enables Hyperpolarization and Water Solubility for NMR Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry B</i> , 2014, 118, 13882-13889.	1.2	131
16	PASADENA hyperpolarization of ¹³ C biomolecules: equipment design and installation. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2009, 22, 111-121.	1.1	123
17	Over 20% ¹⁵ N Hyperpolarization in Under One Minute for Metronidazole, an Antibiotic and Hypoxia Probe. <i>Journal of the American Chemical Society</i> , 2016, 138, 8080-8083.	6.6	123
18	Parahydrogen-induced polarization (PHIP) hyperpolarized MR receptor imaging <i>in vivo</i> : a pilot study of ¹³ C imaging of atheroma in mice. <i>NMR in Biomedicine</i> , 2011, 24, 1023-1028.	1.6	116

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19	Generalizing, Extending, and Maximizing Nitrogen-15 Hyperpolarization Induced by Parahydrogen in Reversible Exchange. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6626-6634.	1.5	112
20	¹⁵ N Hyperpolarization of Imidazole- ¹⁵ N ₂ for Magnetic Resonance pH Sensing via SABRE-SHEATH. <i>ACS Sensors</i> , 2016, 1, 640-644.	4.0	111
21	Quantitative Observation of Backbone Disorder in Native Elastin. <i>Journal of Biological Chemistry</i> , 2004, 279, 7982-7987.	1.6	104
22	Low-field MRI can be more sensitive than high-field MRI. <i>Journal of Magnetic Resonance</i> , 2013, 237, 169-174.	1.2	103
23	A pulsed injection parahydrogen generator and techniques for quantifying enrichment. <i>Journal of Magnetic Resonance</i> , 2012, 214, 258-262.	1.2	95
24	Heterogeneous Solution NMR Signal Amplification by Reversible Exchange. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 7495-7498.	7.2	90
25	The Absence of Quadrupolar Nuclei Facilitates Efficient ¹³ C Hyperpolarization via Reversible Exchange with Parahydrogen. <i>ChemPhysChem</i> , 2017, 18, 1493-1498.	1.0	87
26	Hyperpolarization of "Neat" Liquids by NMR Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1961-1967.	2.1	85
27	Open-Source Automated Parahydrogen Hyperpolarizer for Molecular Imaging Using ¹³ C Metabolic Contrast Agents. <i>Analytical Chemistry</i> , 2016, 88, 8279-8288.	3.2	84
28	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. <i>Analytical Chemistry</i> , 2014, 86, 5601-5605.	3.2	83
29	Direct Hyperpolarization of Nitrogen-15 in Aqueous Media with Parahydrogen in Reversible Exchange. <i>Journal of the American Chemical Society</i> , 2017, 139, 7761-7767.	6.6	80
30	Quality assurance of PASADENA hyperpolarization for ¹³ C biomolecules. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2009, 22, 123-134.	1.1	79
31	High-Resolution Structures and Orientations of Antimicrobial Peptides Piscidin 1 and Piscidin 3 in Fluid Bilayers Reveal Tilting, Kinking, and Bilayer Immersion. <i>Journal of the American Chemical Society</i> , 2014, 136, 3491-3504.	6.6	78
32	Hyperpolarized ¹ H NMR Employing Low ¹³ C Nucleus for Spin Polarization Storage. <i>Journal of the American Chemical Society</i> , 2009, 131, 3164-3165.	6.6	77
33	<i>In Situ</i> Detection of PHIP at 48 mT: Demonstration Using a Centrally Controlled Polarizer. <i>Journal of the American Chemical Society</i> , 2011, 133, 97-101.	6.6	75
34	A 3D-Printed High Power Nuclear Spin Polarizer. <i>Journal of the American Chemical Society</i> , 2014, 136, 1636-1642.	6.6	72
35	High-Resolution 3D Proton MRI of Hyperpolarized Gas Enabled by Parahydrogen and Rh/TiO ₂ Heterogeneous Catalyst. <i>Chemistry - A European Journal</i> , 2014, 20, 11636-11639.	1.7	72
36	Propane- <i>d</i> ₆ Heterogeneously Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28234-28243.	1.5	71

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37	PASADENA Hyperpolarized ¹³ C Phospholactate. Journal of the American Chemical Society, 2012, 134, 3957-3960.	6.6	70
38	Investigating molecular recognition and biological function at interfaces using piscidins, antimicrobial peptides from fish. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 1359-1372.	1.4	69
39	Facile Removal of Homogeneous SABRE Catalysts for Purifying Hyperpolarized Metronidazole, a Potential Hypoxia Sensor. Journal of Physical Chemistry C, 2018, 122, 16848-16852.	1.5	69
40	Long-Lived Spin States for Low-Field Hyperpolarized Gas MRI. Chemistry - A European Journal, 2014, 20, 14629-14632.	1.7	65
41	Aqueous NMR Signal Enhancement by Reversible Exchange in a Single Step Using Water-Soluble Catalysts. Journal of Physical Chemistry C, 2016, 120, 12149-12156.	1.5	63
42	Long-Lived ¹³ C ₂ Nuclear Spin States Hyperpolarized by Parahydrogen in Reversible Exchange at Microtesla Fields. Journal of Physical Chemistry Letters, 2017, 8, 3008-3014.	2.1	63
43	Imaging amide proton transfer and nuclear overhauser enhancement using chemical exchange rotation transfer (CERT). Magnetic Resonance in Medicine, 2014, 72, 471-476.	1.9	62
44	Efficient Synthesis of Nicotinamide-1- ¹⁵ N for Ultrafast NMR Hyperpolarization Using Parahydrogen. Bioconjugate Chemistry, 2016, 27, 878-882.	1.8	62
45	Nanoscale Catalysts for NMR Signal Enhancement by Reversible Exchange. Journal of Physical Chemistry C, 2015, 119, 7525-7533.	1.5	61
46	In Situ and Ex Situ Low-Field NMR Spectroscopy and MRI Endowed by SABRE Hyperpolarization. ChemPhysChem, 2014, 15, 4100-4107.	1.0	58
47	Heterogeneous Microtesla SABRE Enhancement of ¹⁵ N NMR Signals. Angewandte Chemie - International Edition, 2017, 56, 10433-10437.	7.2	58
48	XeNA: An automated "open-source"™ ¹²⁹ Xe hyperpolarizer for clinical use. Magnetic Resonance Imaging, 2014, 32, 541-550.	1.0	57
49	Toward Hyperpolarized ¹⁹ F Molecular Imaging via Reversible Exchange with Parahydrogen. ChemPhysChem, 2017, 18, 1961-1965.	1.0	57
50	Ion Solvation by Channel Carbonyls Characterized by ¹⁷ O Solid-State NMR at 21 T. Journal of the American Chemical Society, 2005, 127, 11922-11923.	6.6	56
51	Parawasserstoffbasierte Hyperpolarisierung für die Biomedizin. Angewandte Chemie, 2018, 130, 11310-11333.	1.6	54
52	Ion-Binding Study by ¹⁷ O Solid-State NMR Spectroscopy in the Model Peptide Gly-Gly-Gly at 19.6 T. Journal of the American Chemical Society, 2006, 128, 9849-9855.	6.6	53
53	Efficient Synthesis of Molecular Precursors for Parahydrogen-Induced Polarization of Ethyl Acetate- ¹³ C and Beyond. Angewandte Chemie - International Edition, 2016, 55, 6071-6074.	7.2	53
54	Instrumentation for Hydrogenative Parahydrogen-Based Hyperpolarization Techniques. Analytical Chemistry, 2022, 94, 479-502.	3.2	52

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55	Efficient Transformation of Parahydrogen Spin Order into Heteronuclear Magnetization. Journal of Physical Chemistry B, 2013, 117, 1219-1224.	1.2	51
56	Two-Dimensional Solid-State NMR Reveals Two Topologies of Sarcolipin in Oriented Lipid Bilayers. Biochemistry, 2006, 45, 10939-10946.	1.2	48
57	Hyperpolarizing Concentrated Metronidazole ¹⁵ NO ₂ Group over Six Chemical Bonds with More than 15% Polarization and a 20-Second Minute Lifetime. Chemistry - A European Journal, 2019, 17, 8829-8836.	1.7	48
58	Spin Relays Enable Efficient Long-Range Heteronuclear Signal Amplification by Reversible Exchange. Journal of Physical Chemistry C, 2017, 121, 28425-28434.	1.5	46
59	Spin Lattice Relaxation of Hyperpolarized Metronidazole in Signal Amplification by Reversible Exchange in Micro-Tesla Fields. Journal of Physical Chemistry C, 2018, 122, 4984-4996.	1.5	45
60	¹⁵ N Chemical Shielding in Glycyl Tripeptides: Measurement by Solid-State NMR and Correlation with X-ray Structure. Journal of the American Chemical Society, 2004, 126, 379-384.	6.6	44
61	Direct ¹³ C Hyperpolarization of ¹³ C Acetate by MicroTesla NMR Signal Amplification by Reversible Exchange (SABRE). Angewandte Chemie - International Edition, 2020, 59, 418-423.	7.2	41
62	Inhalable Curcumin: Offering the Potential for Translation to Imaging and Treatment of Alzheimer's Disease. Journal of Alzheimer's Disease, 2015, 44, 283-295.	1.2	40
63	Aqueous, Heterogeneous para-Hydrogen-Induced ¹⁵ N Polarization. Journal of Physical Chemistry C, 2017, 121, 15304-15309.	1.5	40
64	High-Field NMR Studies of Molecular Recognition and Structure-Function Relationships in Antimicrobial Piscidins at the Water-Lipid Bilayer Interface. Journal of the American Chemical Society, 2006, 128, 5308-5309.	6.6	39
65	Low-E probe for ¹⁹ F NMR of dilute biological solids. Journal of Magnetic Resonance, 2007, 189, 182-189.	1.2	39
66	High-Resolution Low-Field Molecular Magnetic Resonance Imaging of Hyperpolarized Liquids. Analytical Chemistry, 2014, 86, 9042-9049.	3.2	39
67	Temperature Cycling Enables Efficient ¹³ C SABRE-SHEATH Hyperpolarization and Imaging of [1- ¹³ C]-Pyruvate. Journal of the American Chemical Society, 2022, 144, 282-287.	6.6	39
68	Temperature-Ramped ¹²⁹ Xe Spin-Exchange Optical Pumping. Analytical Chemistry, 2014, 86, 8206-8212.	3.2	37
69	Flow-Through Lipid Nanotube Arrays for Structure-Function Studies of Membrane Proteins by Solid-State NMR Spectroscopy. Biophysical Journal, 2006, 91, 3076-3084.	0.2	36
70	Production of Pure Aqueous ¹³ C Hyperpolarized Acetate by Heterogeneous Parahydrogen-Induced Polarization. Chemistry - A European Journal, 2016, 22, 16446-16449.	1.7	36
71	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.	1.2	36
72	Unveiling coherently driven hyperpolarization dynamics in signal amplification by reversible exchange. Nature Communications, 2019, 10, 395.	5.8	36

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73	Quasi-Resonance Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6136-6142.	2.1	35
74	Single-Crystal Studies of Peptide Prolyl and Glycyl ¹⁵ N Shielding Tensors. <i>Journal of the American Chemical Society</i> , 2005, 127, 9030-9035.	6.6	34
75	Sodium MRI in a rat migraine model and a NEURON simulation study support a role for sodium in migraine. <i>Cephalalgia</i> , 2011, 31, 1254-1265.	1.8	34
76	NMR Signal Amplification by Reversible Exchange of Sulfur ¹⁹ F-Heterocyclic Compounds Found In Petroleum. <i>ChemistrySelect</i> , 2016, 1, 2552-2555.	0.7	34
77	¹⁷ O Quadrupole Coupling and Chemical Shielding Tensors in an H-bonded Carboxyl Group: \pm -Oxalic Acid. <i>Journal of the American Chemical Society</i> , 2003, 125, 9140-9146.	6.6	33
78	Analysis of RF heating and sample stability in aligned static solid-state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2006, 180, 51-57.	1.2	33
79	A large volume flat coil probe for oriented membrane proteins. <i>Journal of Magnetic Resonance</i> , 2006, 181, 9-20.	1.2	33
80	MR Imaging Biomarkers in Oncology Clinical Trials. <i>Magnetic Resonance Imaging Clinics of North America</i> , 2016, 24, 11-29.	0.6	33
81	Chemical Exchange Reaction Effect on Polarization Transfer Efficiency in SLIC-SABRE. <i>Journal of Physical Chemistry A</i> , 2018, 122, 9107-9114.	1.1	33
82	Synthesis of Unsaturated Precursors for Parahydrogen-Induced Polarization and Molecular Imaging of ¹³ C-Acetates and ¹³ C-Pyruvates via Side Arm Hydrogenation. <i>ACS Omega</i> , 2018, 3, 6673-6682.	1.6	33
83	¹⁵ N MRI of SLIC-SABRE Hyperpolarized ¹⁵ N-Labelled Pyridine and Nicotinamide. <i>Chemistry - A European Journal</i> , 2019, 25, 8465-8470.	1.7	33
84	¹⁵ N NMR Hyperpolarization of Radiosensitizing Antibiotic Nimorazole by Reversible Parahydrogen Exchange in Microtesla Magnetic Fields. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2406-2413.	7.2	33
85	¹⁵ N and ³¹ P solid-state NMR study of transmembrane domain alignment of M2 protein of influenza A virus in hydrated cylindrical lipid bilayers confined to anodic aluminum oxide nanopores. <i>Journal of Magnetic Resonance</i> , 2005, 173, 322-327.	1.2	32
86	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.	1.2	32
87	Quantifying the effects of quadrupolar sinks via ¹⁵ N relaxation dynamics in metronidazoles hyperpolarized via SABRE-SHEATH. <i>Chemical Communications</i> , 2020, 56, 9098-9101.	2.2	32
88	Functional stability of water wire-carbonyl interactions in an ion channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 11908-11915.	3.3	32
89	2D Mapping of NMR Signal Enhancement and Relaxation for Heterogeneously Hyperpolarized Propane Gas. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10038-10046.	1.5	31
90	Order-Unity ¹³ C Nuclear Polarization of [¹³ C]Pyruvate in Seconds and the Interplay of Water and SABRE Enhancement. <i>ChemPhysChem</i> , 2022, 23, .	1.0	30

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91	Peptide ^{17}O Chemical Shielding and Electric Field Gradient Tensors. <i>Journal of Physical Chemistry B</i> , 2006, 110, 22935-22941.	1.2	29
92	Toward production of pure ^{13}C hyperpolarized metabolites using heterogeneous parahydrogen-induced polarization of ethyl[^{13}C]acetate. <i>RSC Advances</i> , 2016, 6, 69728-69732.	1.7	28
93	Parahydrogen-Induced Polarization of ^{13}C -Acetates and ^{13}C -Pyruvates Using Sidearm Hydrogenation of Vinyl, Allyl, and Propargyl Esters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12827-12840.	1.5	28
94	Pulse-Programmable Magnetic Field Sweeping of Parahydrogen-Induced Polarization by Side Arm Hydrogenation. <i>Analytical Chemistry</i> , 2020, 92, 1340-1345.	3.2	28
95	Fluorine- ^{19}F NMR Chemical Shift Probes Molecular Binding to Lipid Membranes. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6285-6287.	1.2	27
96	A large volume double channel ^1H -X RF probe for hyperpolarized magnetic resonance at 0.0475T. <i>Journal of Magnetic Resonance</i> , 2012, 220, 94-101.	1.2	27
97	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.	3.2	27
98	Robust Imidazole- ^{15}N Synthesis for High-Resolution Low-Field (0.05 T) ^{15}N -Hyperpolarized NMR Spectroscopy. <i>ChemistrySelect</i> , 2017, 2, 4478-4483.	0.7	27
99	Heterogeneous Microtesla SABRE Enhancement of ^{15}N NMR Signals. <i>Angewandte Chemie</i> , 2017, 129, 10569-10573.	1.6	27
100	Parahydrogen-Induced Hyperpolarization of Gases. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17788-17797.	7.2	27
101	Clinical-Scale Production of Nearly Pure (>98.5%) Parahydrogen and Quantification by Benchtop NMR Spectroscopy. <i>Analytical Chemistry</i> , 2021, 93, 3594-3601.	3.2	27
102	Dephosphorylation and biodistribution of ^{13}C -phospholactate <i>in vivo</i> . <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2014, 57, 517-524.	0.5	26
103	High-resolution hyperpolarized <i>in vivo</i> 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.	1.2	26
104	Enabling Clinical Technologies for Hyperpolarized ^{129}Xe Magnetic Resonance Imaging and Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22126-22147.	7.2	26
105	Parahydrogen-Induced Polarization with a Rh-Based Monodentate Ligand in Water. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3281-3285.	2.1	25
106	Imaging of Biomolecular NMR Signals Amplified by Reversible Exchange with Parahydrogen Inside an MRI Scanner. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25994-25999.	1.5	25
107	A pulse programmable parahydrogen polarizer using a tunable electromagnet and dual channel NMR spectrometer. <i>Journal of Magnetic Resonance</i> , 2017, 284, 115-124.	1.2	24
108	Glycyl C^{β} -Chemical Shielding in Tripeptides: Measurement by Solid-State NMR and Correlation with X-ray Structure and Theory. <i>Journal of the American Chemical Society</i> , 2002, 124, 11894-11899.	6.6	23

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109	¹⁹ F Hyperpolarization of ¹⁵ N-3- ¹⁹ F-Pyridine via Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23002-23010.	1.5	23
110	Quasi-Resonance Fluorine-19 Signal Amplification by Reversible Exchange. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4229-4236.	2.1	23
111	Clinical-Scale Batch-Mode Production of Hyperpolarized Propane Gas for MRI. <i>Analytical Chemistry</i> , 2019, 91, 4741-4746.	3.2	23
112	Rational ligand choice extends the SABRE substrate scope. <i>Chemical Communications</i> , 2020, 56, 9336-9339.	2.2	23
113	Subsecond proton imaging of ¹³ C hyperpolarized contrast agents in water. <i>Contrast Media and Molecular Imaging</i> , 2014, 9, 333-341.	0.4	22
114	Parahydrogen-Induced Radio Amplification by Stimulated Emission of Radiation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8654-8660.	7.2	22
115	Can antimicrobial peptides scavenge around a cell in less than a second?. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2010, 1798, 228-234.	1.4	21
116	NMR SLIC Sensing of Hydrogenation Reactions Using Parahydrogen in Low Magnetic Fields. <i>Journal of Physical Chemistry C</i> , 2016, 120, 29098-29106.	1.5	21
117	Gas Phase UTE MRI of Propane and Propene. <i>Tomography</i> , 2016, 2, 49-55.	0.8	21
118	Synthesis and physico-chemical properties of peptides in soil humic substances. <i>Chemical Biology and Drug Design</i> , 2004, 63, 253-264.	1.2	20
119	Current and emerging quantitative magnetic resonance imaging methods for assessing and predicting the response of breast cancer to neoadjuvant therapy. <i>Breast Cancer: Targets and Therapy</i> , 2012, 2012, 139.	1.0	20
120	Low-Cost High-Pressure Clinical-Scale 50% Parahydrogen Generator Using Liquid Nitrogen at 77 K. <i>Analytical Chemistry</i> , 2021, 93, 8476-8483.	3.2	20
121	Heterogeneous Parahydrogen Pairwise Addition to Cyclopropane. <i>ChemPhysChem</i> , 2018, 19, 2621-2626.	1.0	19
122	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.	3.2	19
123	SABRE and PHIP pumped RASER and the route to chaos. <i>Journal of Magnetic Resonance</i> , 2021, 322, 106815.	1.2	19
124	PHIP hyperpolarized [1- ¹³ C]pyruvate and [1- ¹³ C]acetate esters via PH-INEPT polarization transfer monitored by ¹³ C NMR and MRI. <i>Scientific Reports</i> , 2021, 11, 5646.	1.6	19
125	Efficient Synthesis of Molecular Precursors for Parahydrogen-Induced Polarization of Ethyl Acetate- ¹³ C and Beyond. <i>Angewandte Chemie</i> , 2016, 128, 6175-6178.	1.6	18
126	Extending the Lifetime of Hyperpolarized Propane Gas through Reversible Dissolution. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4481-4487.	1.5	18

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127	15 N Hyperpolarization of Dalfampridine at Natural Abundance for Magnetic Resonance Imaging. <i>Chemistry - A European Journal</i> , 2019, 25, 12694-12697.	1.7	18
128	Relaxation Dynamics of Nuclear Long-Lived Spin States in Propane and Propane-d6 Hyperpolarized by Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11734-11744.	1.5	18
129	A Versatile Compact Parahydrogen Membrane Reactor. <i>ChemPhysChem</i> , 2021, 22, 2526-2534.	1.0	17
130	Direct ¹³ C Hyperpolarization of ¹³ C Acetate by MicroTesla NMR Signal Amplification by Reversible Exchange (SABRE). <i>Angewandte Chemie</i> , 2020, 132, 426-431.	1.6	16
131	XeUS: A second-generation automated open-source batch-mode clinical-scale hyperpolarizer. <i>Journal of Magnetic Resonance</i> , 2020, 319, 106813.	1.2	16
132	Automated pneumatic shuttle for magnetic field cycling and parahydrogen hyperpolarized multidimensional NMR. <i>Journal of Magnetic Resonance</i> , 2020, 312, 106700.	1.2	16
133	High-Pressure Clinical-Scale 87% Parahydrogen Generator. <i>Analytical Chemistry</i> , 2020, 92, 15280-15284.	3.2	16
134	Relayed nuclear Overhauser enhancement sensitivity to membrane Cho phospholipids. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 1961-1976.	1.9	16
135	Noninvasive Measurements of Glycogen in Perfused Mouse Livers Using Chemical Exchange Saturation Transfer NMR and Comparison to ¹³ C NMR Spectroscopy. <i>Analytical Chemistry</i> , 2015, 87, 5824-5830.	3.2	15
136	Parahydrogen-Induced Radio Amplification by Stimulated Emission of Radiation. <i>Angewandte Chemie</i> , 2020, 132, 8732-8738.	1.6	14
137	Cyclopropane Hydrogenation vs Isomerization over Pt and Pt-Sn Intermetallic Nanoparticle Catalysts: A Parahydrogen Spin-Labeling Study. <i>Journal of Physical Chemistry C</i> , 2020, 124, 8304-8309.	1.5	14
138	Efficient Batch-Mode Parahydrogen-Induced Polarization of Propane. <i>ChemPhysChem</i> , 2016, 17, 3395-3398.	1.0	13
139	Toward Cleavable Metabolic/pH Sensing Double Agents Hyperpolarized by NMR Signal Amplification by Reversible Exchange. <i>Chemistry - A European Journal</i> , 2018, 24, 10641-10645.	1.7	13
140	Magnetic shielding of parahydrogen hyperpolarization experiments for the masses. <i>Magnetic Resonance in Chemistry</i> , 2021, 59, 1180-1186.	1.1	13
141	Effects of Deuteration of ¹³ C-Enriched Phospholactate on Efficiency of Parahydrogen-Induced Polarization by Magnetic Field Cycling. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24740-24749.	1.5	12
142	Heterogeneous hydrogenation of phenylalkynes with parahydrogen: hyperpolarization, reaction selectivity, and kinetics. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 26477-26482.	1.3	12
143	High Xe density, high photon flux, stopped-flow spin-exchange optical pumping: Simulations versus experiments. <i>Journal of Magnetic Resonance</i> , 2020, 312, 106686.	1.2	12
144	Heterogeneous Parahydrogen-Induced Polarization of Diethyl Ether for Magnetic Resonance Imaging Applications. <i>Chemistry - A European Journal</i> , 2021, 27, 1316-1322.	1.7	12

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