

Lucio Frydman

List of Publications by Year in descending order

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227
papers

10,454
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44069

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all docs

242
docs citations

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times ranked

5587
citing authors

#	ARTICLE	IF	CITATIONS
1	Isotropic Spectra of Half-Integer Quadrupolar Spins from Bidimensional Magic-Angle Spinning NMR. <i>Journal of the American Chemical Society</i> , 1995, 117, 5367-5368.	13.7	1,211
2	Multiple-Quantum Magic-Angle Spinning NMR: A New Method for the Study of Quadrupolar Nuclei in Solids. <i>Journal of the American Chemical Society</i> , 1995, 117, 12779-12787.	13.7	825
3	The acquisition of multidimensional NMR spectra within a single scan. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 15858-15862.	7.1	546
4	Facing and Overcoming Sensitivity Challenges in Biomolecular NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 9162-9185.	13.8	258
5	Single-scan multidimensional magnetic resonance. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2010, 57, 241-292.	7.5	245
6	Principles and Features of Single-Scan Two-Dimensional NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2003, 125, 9204-9217.	13.7	236
7	Ultrafast two-dimensional nuclear magnetic resonance spectroscopy of hyperpolarized solutions. <i>Nature Physics</i> , 2007, 3, 415-419.	16.7	225
8	Sensitivity enhancement of the MQMAS NMR experiment by fast amplitude modulation of the pulses. <i>Chemical Physics Letters</i> , 1999, 307, 41-47.	2.6	213
9	Kinetics of hyperpolarized ¹³ C ₁ -pyruvate transport and metabolism in living human breast cancer cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18131-18136.	7.1	202
10	Optimized multiple-quantum magic-angle spinning NMR experiments on half-integer quadrupoles. <i>Chemical Physics Letters</i> , 1996, 259, 347-355.	2.6	185
11	Ultrafast 2D NMR: An Emerging Tool in Analytical Spectroscopy. <i>Annual Review of Analytical Chemistry</i> , 2014, 7, 129-161.	5.4	141
12	<i>Chemical Physics</i> , 1992, 97, 4800-4808.	3.0	133
13	Toward single-shot pure-shift solution ¹ H NMR by trains of BIRD-based homonuclear decoupling. <i>Journal of Magnetic Resonance</i> , 2012, 218, 141-146.	2.1	128
14	Secondary structure determination of conserved SARS-CoV-2 RNA elements by NMR spectroscopy. <i>Nucleic Acids Research</i> , 2020, 48, 12415-12435.	14.5	125
15	Quadrupolar nuclear magnetic resonance spectroscopy in solids using frequency-swept echoing pulses. <i>Journal of Chemical Physics</i> , 2007, 127, 194503.	3.0	107
16	Bulk Nuclear Polarization Enhanced at Room Temperature by Optical Pumping. <i>Physical Review Letters</i> , 2013, 111, 057601.	7.8	106
17	Broadband adiabatic inversion pulses for cross polarization in wide-line solid-state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2012, 224, 38-47.	2.1	103
18	Multiple Ultrafast, Broadband 2D NMR Spectra of Hyperpolarized Natural Products. <i>Journal of the American Chemical Society</i> , 2009, 131, 13902-13903.	13.7	101

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19	Dynamic Effects on the Powder Line Shapes of Half-Integer Quadrupolar Nuclei: A Solid-State NMR Study of XO ₄ Groups. <i>Journal of Physical Chemistry A</i> , 2002, 106, 51-62.	2.5	100
20	Spatially encoded NMR and the acquisition of 2D magnetic resonance images within a single scan. <i>Journal of Magnetic Resonance</i> , 2005, 172, 179-190.	2.1	100
21	UltraSOFAST HMQC NMR and the Repetitive Acquisition of 2D Protein Spectra at Hz Rates. <i>Journal of the American Chemical Society</i> , 2007, 129, 1372-1377.	13.7	99
22	Real-time multidimensional NMR follows RNA folding with second resolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9192-9197.	7.1	98
23	Central Transition Nuclear Magnetic Resonance in the Presence of Large Quadrupole Couplings: A Cobalt-59 Nuclear Magnetic Resonance of Cobaltophthalocyanines. <i>Journal of Physical Chemistry A</i> , 1999, 103, 4830-4835.	2.5	96
24	Progress in Hyperpolarized Ultrafast 2D NMR Spectroscopy. <i>ChemPhysChem</i> , 2008, 9, 2340-2348.	2.1	93
25	Fast radio-frequency amplitude modulation in multiple-quantum magic-angle-spinning nuclear magnetic resonance: Theory and experiments. <i>Journal of Chemical Physics</i> , 2000, 112, 2377-2391.	3.0	90
26	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. <i>Analyst</i> , 2015, 140, 5860-5863.	3.5	87
27	Local and bulk ¹³ C hyperpolarization in nitrogen-vacancy-centred diamonds at variable fields and orientations. <i>Nature Communications</i> , 2015, 6, 8456.	12.8	83
28	Real-Time Monitoring of Chemical Transformations by Ultrafast 2D NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2006, 128, 951-956.	13.7	78
29	Single-Scan NMR Spectroscopy at Arbitrary Dimensions. <i>Journal of the American Chemical Society</i> , 2003, 125, 11385-11396.	13.7	77
30	Residual dipolar couplings between quadrupolar nuclei in high resolution solid state NMR: Description and observations in the high-field limit. <i>Journal of Chemical Physics</i> , 2000, 112, 3248-3261.	3.0	74
31	Principles and Progress in Ultrafast Multidimensional Nuclear Magnetic Resonance. <i>Annual Review of Physical Chemistry</i> , 2009, 60, 429-448.	10.8	73
32	High-definition, single-scan 2D MRI in inhomogeneous fields using spatial encoding methods. <i>Magnetic Resonance Imaging</i> , 2010, 28, 77-86.	1.8	73
33	Factors Affecting DNP NMR in Polycrystalline Diamond Samples. <i>Journal of Physical Chemistry C</i> , 2011, 115, 19041-19048.	3.1	72
34	Superresolved spatially encoded single-scan 2D MRI. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1594-1600.	3.0	71
35	SPIN-1/2 AND BEYOND: A Perspective in Solid State NMR Spectroscopy. <i>Annual Review of Physical Chemistry</i> , 2001, 52, 463-498.	10.8	66
36	Toward 20T magnetic resonance for human brain studies: opportunities for discovery and neuroscience rationale. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2016, 29, 617-639.	2.0	66

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37	Spatial encoding and the single-scan acquisition of high definition MR images in inhomogeneous fields. <i>Journal of Magnetic Resonance</i> , 2006, 182, 179-194.	2.1	63
38	Zeno and Anti-Zeno Polarization Control of Spin Ensembles by Induced Dephasing. <i>Physical Review Letters</i> , 2010, 105, 160401.	7.8	63
39	On the Potential of Hyperpolarized Water in Biomolecular NMR Studies. <i>Journal of Physical Chemistry B</i> , 2014, 118, 3281-3290.	2.6	63
40	Spatial Encoding and the Acquisition of High-Resolution NMR Spectra in Inhomogeneous Magnetic Fields. <i>Journal of the American Chemical Society</i> , 2004, 126, 7184-7185.	13.7	60
41	Monitoring Mechanistic Details in the Synthesis of Pyrimidines via Real-Time, Ultrafast Multidimensional NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2012, 134, 2706-2715.	13.7	56
42	Structure and Dynamics of the Huntingtin Exon-1 N-Terminus: A Solution NMR Perspective. <i>Journal of the American Chemical Society</i> , 2017, 139, 1168-1176.	13.7	56
43	Solid-State ²⁵ Mg NMR of a Magnesium(II) Adenosine 5'-Triphosphate Complex. <i>Journal of the American Chemical Society</i> , 2000, 122, 11743-11744.	13.7	55
44	Native-unlike Long-lived Intermediates along the Folding Pathway of the Amyloidogenic Protein β 2-Microglobulin Revealed by Real-time Two-dimensional NMR. <i>Journal of Biological Chemistry</i> , 2010, 285, 5827-5835.	3.4	55
45	High-resolution solid-state carbon-13 NMR spectra of porphine and 5,10,15-20-tetraalkylporphyrins: implications for the nitrogen-hydrogen tautomerization process. <i>Journal of the American Chemical Society</i> , 1988, 110, 336-342.	13.7	54
46	New spatiotemporal approaches for fully refocused, multislice ultrafast 2D MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 711-722.	3.0	54
47	On the origin of spinning sidebands in MQMAS NMR experiments. <i>Chemical Physics Letters</i> , 1997, 275, 188-198.	2.6	53
48	Metabolic properties in stroked rats revealed by relaxation-enhanced magnetic resonance spectroscopy at ultrahigh fields. <i>Nature Communications</i> , 2014, 5, 4958.	12.8	53
49	Homonuclear NMR Correlations between Half-Integer Quadrupolar Nuclei Undergoing Magic-Angle Spinning. <i>Journal of Physical Chemistry B</i> , 2003, 107, 14598-14611.	2.6	51
50	A quasi-optical and corrugated waveguide microwave transmission system for simultaneous dynamic nuclear polarization NMR on two separate 14.1 T spectrometers. <i>Journal of Magnetic Resonance</i> , 2018, 289, 35-44.	2.1	49
51	The effects of molecular diffusion in ultrafast two-dimensional nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , 2008, 128, 164513.	3.0	47
52	Dissolution DNP NMR with solvent mixtures: Substrate concentration and radical extraction. <i>Journal of Magnetic Resonance</i> , 2011, 211, 96-100.	2.1	47
53	Spatial/spectral encoding of the spin interactions in ultrafast multidimensional NMR. <i>Journal of Chemical Physics</i> , 2009, 131, 224516.	3.0	45
54	Spatiotemporal encoding as a robust basis for fast three-dimensional <i>in vivo</i> MRI. <i>NMR in Biomedicine</i> , 2011, 24, 1191-1201.	2.8	44

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55	Diffusion weighted MRI by spatiotemporal encoding: Analytical description and in vivo validations. <i>Journal of Magnetic Resonance</i> , 2013, 232, 76-86.	2.1	44
56	Major mouse placental compartments revealed by diffusion-weighted MRI, contrast-enhanced MRI, and fluorescence imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10353-10358.	7.1	44
57	Optimizing water hyperpolarization and dissolution for sensitivity-enhanced 2D biomolecular NMR. <i>Journal of Magnetic Resonance</i> , 2016, 264, 49-58.	2.1	44
58	A variable-temperature solid-state carbon-13 CPMAS NMR analysis of meso-tetrapropylporphyrin and of octaethylporphyrin. <i>Journal of the American Chemical Society</i> , 1988, 110, 5651-5661.	13.7	42
59	Rapid Acquisition of ¹⁴ N Solid-State NMR Spectra with Broadband Cross Polarization. <i>Chemistry - A European Journal</i> , 2013, 19, 16469-16475.	3.3	42
60	Multiple - quantum magic - angle spinning NMR: a new technique for probing quadrupolar nuclei in solids. <i>Journal of the Brazilian Chemical Society</i> , 1999, 10, 263.	0.6	41
61	Referenceless reconstruction of spatiotemporally encoded imaging data: Principles and applications to real-time MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 1687-1695.	3.0	41
62	Quadrupolar-driven recoupling of homonuclear dipolar interactions in the nuclear magnetic resonance of rotating solids. <i>Journal of Chemical Physics</i> , 2001, 114, 4116-4123.	3.0	40
63	Ultrafast NMR ¹³ C Relaxation Measurements: Probing Molecular Properties in Real Time. <i>ChemPhysChem</i> , 2013, 14, 3138-3145.	2.1	40
64	Real-Time 2D NMR Identification of Analytes Undergoing Continuous Chromatographic Separation. <i>Journal of the American Chemical Society</i> , 2004, 126, 1262-1265.	13.7	39
65	An improved ultrafast 2D NMR experiment: Towards atom-resolved real-time studies of protein kinetics at multi-Hz rates. <i>Journal of Biomolecular NMR</i> , 2009, 43, 1-10.	2.8	38
66	In vivo single-shot ¹³ C spectroscopic imaging of hyperpolarized metabolites by spatiotemporal encoding. <i>Journal of Magnetic Resonance</i> , 2014, 240, 8-15.	2.1	38
67	Correlation of Isotropic and Anisotropic Chemical Shifts in Solids by Two-Dimensional Variable-Angle-Spinning NMR. <i>Israel Journal of Chemistry</i> , 1992, 32, 161-164.	2.3	37
68	High Resolution 3D Exchange NMR Spectroscopy and the Mapping of Connectivities between Half-integer Quadrupolar Nuclei. <i>Journal of the American Chemical Society</i> , 2002, 124, 9708-9709.	13.7	36
69	Spectroscopic imaging from spatially-encoded single-scan multidimensional MRI data. <i>Journal of Magnetic Resonance</i> , 2007, 189, 46-58.	2.1	36
70	High-Resolution 2D NMR of Disordered Proteins Enhanced by Hyperpolarized Water. <i>Analytical Chemistry</i> , 2018, 90, 6169-6177.	6.5	36
71	A Multinuclear Solid-State NMR Analysis of Vitamin B12 in Its Different Polymorphic Forms. <i>Journal of the American Chemical Society</i> , 2000, 122, 684-691.	13.7	34
72	Relaxation-Assisted Separation of Chemical Sites in NMR Spectroscopy of Static Solids. <i>Journal of the American Chemical Society</i> , 2003, 125, 3376-3383.	13.7	34

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73	Measuring small compartment dimensions by probing diffusion dynamics via Non-uniform Oscillating-Gradient Spin-Echo (NOGSE) NMR. <i>Journal of Magnetic Resonance</i> , 2013, 237, 49-62.	2.1	34
74	Overcoming limitations in diffusion-weighted MRI of breast by spatio-temporal encoding. <i>Magnetic Resonance in Medicine</i> , 2015, 73, 2163-2173.	3.0	34
75	Concerning the crystal structure of porphine: a proton pulsed and carbon-13 cross-polarization/magic-angle-spinning NMR study. <i>Journal of the American Chemical Society</i> , 1989, 111, 7001-7005.	13.7	33
76	Residual dipolar couplings between quadrupolar nuclei in solid state nuclear magnetic resonance at arbitrary fields. <i>Journal of Chemical Physics</i> , 2001, 114, 8511-8519.	3.0	33
77	Nearly 106-fold enhancements in intermolecular ¹ H double-quantum NMR experiments by nuclear hyperpolarization. <i>Journal of Magnetic Resonance</i> , 2009, 200, 142-146.	2.1	32
78	Size Distribution Imaging by Non-Uniform Oscillating-Gradient Spin Echo (NOGSE) MRI. <i>PLoS ONE</i> , 2015, 10, e0133201.	2.5	32
79	Dynamic Effects in MAS and MQMAS NMR Spectra of Half-Integer Quadrupolar Nuclei: Calculations and an Application to the Double Perovskite Cryolite. <i>Journal of the American Chemical Society</i> , 2005, 127, 16701-16712.	13.7	31
80	Perfect state transfers by selective quantum interferences within complex spin networks. <i>Physical Review A</i> , 2010, 81, .	2.5	31
81	Kinetics from Indirectly Detected Hyperpolarized NMR Spectroscopy by Using Spatially Selective Coherence Transfers. <i>Chemistry - A European Journal</i> , 2011, 17, 697-703.	3.3	30
82	Multiple Parallel 2D NMR Acquisitions in a Single Scan. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4152-4155.	13.8	29
83	A 300-fold enhancement of imino nucleic acid resonances by hyperpolarized water provides a new window for probing RNA refolding by 1D and 2D NMR. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2449-2455.	7.1	29
84	A density matrix description of ¹⁴ N overtone nuclear magnetic resonance in static and spinning solids. <i>Journal of Chemical Physics</i> , 1999, 110, 3100-3112.	3.0	28
85	Parametric analysis of the spatial resolution and signal-to-noise ratio in super-resolved spatiotemporally encoded (SPEN) MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 418-429.	3.0	28
86	Dipolar Determinations in Solids by Relaxation-Assisted NMR Recoupling. <i>Journal of the American Chemical Society</i> , 1996, 118, 9786-9787.	13.7	27
87	⁵⁹ Co NMR Studies of Diamagnetic Porphyrin Complexes in the Solid Phase. <i>Journal of Physical Chemistry B</i> , 1997, 101, 8959-8966.	2.6	27
88	Chirped CPMG for well-logging NMR applications. <i>Journal of Magnetic Resonance</i> , 2014, 242, 197-202.	2.1	27
89	Interleaved multishot imaging by spatiotemporal encoding: A fast, self-referenced method for high-definition diffusion and functional MRI. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1935-1948.	3.0	27
90	Multidimensional excitation pulses based on spatiotemporal encoding concepts. <i>Journal of Magnetic Resonance</i> , 2013, 226, 22-34.	2.1	26

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91	In vivo 3D spatial/1D spectral imaging by spatiotemporal encoding: A new single-shot experimental and processing approach. <i>Magnetic Resonance in Medicine</i> , 2013, 70, 382-391.	3.0	25
92	Longitudinal Relaxation Enhancement in ^1H -NMR Spectroscopy of Tissue Metabolites via Spectrally Selective Excitation. <i>Chemistry - A European Journal</i> , 2013, 19, 13002-13008.	3.3	25
93	Super-resolved parallel MRI by spatiotemporal encoding. <i>Magnetic Resonance Imaging</i> , 2014, 32, 60-70.	1.8	25
94	Robust diffusion tensor imaging by spatiotemporal encoding: Principles and in vivo demonstrations. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 1124-1133.	3.0	25
95	Functional MRI using super-resolved spatiotemporal encoding. <i>Magnetic Resonance Imaging</i> , 2012, 30, 1401-1408.	1.8	24
96	Coherent Dynamical Recoupling of Diffusion-Driven Decoherence in Magnetic Resonance. <i>Physical Review Letters</i> , 2013, 111, 080404.	7.8	24
97	Placental physiology monitored by hyperpolarized dynamic ^{13}C magnetic resonance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2429-E2436.	7.1	24
98	Distinguishing neuronal from astrocytic subcellular microstructures using in vivo Double Diffusion Encoded ^1H MRS at 21.1 T. <i>PLoS ONE</i> , 2017, 12, e0185232.	2.5	24
99	Heteronuclear Recoupling in Solid-State Magic-Angle-Spinning NMR via Overtone Irradiation. <i>Journal of the American Chemical Society</i> , 2001, 123, 10354-10361.	13.7	23
100	Single-scan 2D NMR spectroscopy on a 25 T bitter magnet. <i>Chemical Physics Letters</i> , 2007, 442, 478-482.	2.6	23
101	Multi-rank nuclear magnetic resonance studies of half-integer quadrupolar nuclei in solids by three-dimensional dynamic correlation spectroscopy. <i>Journal of Chemical Physics</i> , 1996, 104, 5374-5383.	3.0	22
102	Second-order quadrupole-shielding effects in magic-angle spinning solid-state nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , 2003, 118, 3131-3140.	3.0	22
103	Hyperpolarized water as universal sensitivity booster in biomolecular NMR. <i>Nature Protocols</i> , 2022, 17, 1621-1657.	12.0	22
104	^1H NMR noise measurements in hyperpolarized liquid samples. <i>Chemical Physics Letters</i> , 2010, 489, 107-112.	2.6	21
105	fMRI contrast at high and ultrahigh magnetic fields: Insight from complementary methods. <i>NeuroImage</i> , 2015, 113, 37-43.	4.2	21
106	On The Potential of Dynamic Nuclear Polarization Enhanced Diamonds in Solid-State and Dissolution ^{13}C -NMR Spectroscopy. <i>ChemPhysChem</i> , 2016, 17, 2691-2701.	2.1	21
107	A regularized reconstruction pipeline for high-definition diffusion MRI in challenging regions incorporating a per-shot image correction. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 1322-1330.	3.0	21
108	Single-scan multidimensional NMR. <i>Comptes Rendus Chimie</i> , 2006, 9, 336-345.	0.5	20

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109	Single-scan MRI with exceptional resilience to field heterogeneities. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 623-634.	3.0	20
110	Sensitivity enhancement of homonuclear multidimensional NMR correlations for labile sites in proteins, polysaccharides, and nucleic acids. <i>Nature Communications</i> , 2020, 11, 5317.	12.8	20
111	Ultrafast 2D ¹ H- ¹ H NMR spectroscopy of DNP-hyperpolarised substrates for the analysis of mixtures. <i>Chemical Communications</i> , 2021, 57, 8035-8038.	4.1	20
112	Parallel nuclear magnetic resonance spectroscopy. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	21.2	20
113	Quadrupolar and Chemical Shift Tensors Characterized by 2D Multiple-Quantum NMR Spectroscopy. <i>Journal of Magnetic Resonance</i> , 1999, 138, 298-307.	2.1	19
114	Quadrupolar-shielding cross-correlations in solid state nuclear magnetic resonance: Detecting antisymmetric components in chemical shift tensors. <i>Journal of Chemical Physics</i> , 2002, 116, 1551-1561.	3.0	19
115	Looped-PROjected Spectroscopy (L-PROSY): A simple approach to enhance backbone/sidechain cross-peaks in 1H NMR. <i>Journal of Magnetic Resonance</i> , 2018, 294, 169-180.	2.1	19
116	High-resolution diffusion MRI studies of development in pregnant mice visualized by novel spatiotemporal encoding schemes. <i>NMR in Biomedicine</i> , 2020, 33, e4208.	2.8	19
117	Diffusion tensor distribution imaging of an in vivo mouse brain at ultrahigh magnetic field by spatiotemporal encoding. <i>NMR in Biomedicine</i> , 2020, 33, e4355.	2.8	19
118	Improving deuterium metabolic imaging (DMI) signal-to-noise ratio by spectroscopic multi-echo bSSFP: A pancreatic cancer investigation. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 2604-2617.	3.0	19
119	Order Determinations in Liquid Crystals by Dynamic Director NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 1998, 120, 2178-2179.	13.7	18
120	⁵⁹ Co Solid-State NMR as a New Probe for Elucidating Metal Binding in Polynucleotides. <i>Journal of the American Chemical Society</i> , 2002, 124, 4458-4462.	13.7	18
121	Shift-driven modulations of spin-echo signals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5958-5961.	7.1	18
122	Following Metabolism in Living Microorganisms by Hyperpolarized ¹ H NMR. <i>Journal of the American Chemical Society</i> , 2016, 138, 12278-12286.	13.7	18
123	Huntingtin's N-Terminus Rearrangements in the Presence of Membranes: A Joint Spectroscopic and Computational Perspective. <i>ACS Chemical Neuroscience</i> , 2019, 10, 472-481.	3.5	18
124	A ¹³ C solid-state NMR study of the structure and the dynamics of the polymorphs of sulphanilamide. <i>Molecular Physics</i> , 1990, 70, 563-579.	1.7	17
125	Reducing acquisition times in multidimensional NMR with a time-optimized Fourier encoding algorithm. <i>Journal of Chemical Physics</i> , 2014, 141, 194201.	3.0	17
126	Heteronuclear Cross-Relaxation Effects in the NMR Spectroscopy of Hyperpolarized Targets. <i>ChemPhysChem</i> , 2014, 15, 436-443.	2.1	17

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127	Nuclear hyperpolarization comes of age. <i>Journal of Magnetic Resonance</i> , 2016, 264, 1-2.	2.1	17
128	Phase-encoded xSPEN: A novel high-resolution volumetric alternative to RARE MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1492-1506.	3.0	17
129	Sensitivity-enhanced three-dimensional and carbon-detected two-dimensional NMR of proteins using hyperpolarized water. <i>Journal of Biomolecular NMR</i> , 2020, 74, 161-171.	2.8	17
130	Assessing Site-Specific Enhancements Imparted by Hyperpolarized Water in Folded and Unfolded Proteins by 2D HMQC NMR. <i>Journal of the American Chemical Society</i> , 2020, 142, 9267-9284.	13.7	17
131	Deuterium MRSI characterizations of glucose metabolism in orthotopic pancreatic cancer mouse models. <i>NMR in Biomedicine</i> , 2021, 34, e4569.	2.8	17
132	Ultrafast two-dimensional NMR spectroscopy using constant acquisition gradients. <i>Journal of Chemical Physics</i> , 2006, 125, 204507.	3.0	16
133	Multidimensional $\langle \text{scp} \rangle$ NMR spectroscopy in a single scan. <i>Magnetic Resonance in Chemistry</i> , 2015, 53, 971-985.	1.9	16
134	Multiple-coil k -space interpolation enhances resolution in single-shot spatiotemporal MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 796-805.	3.0	16
135	Large volume liquid state scalar Overhauser dynamic nuclear polarization at high magnetic field. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21200-21204.	2.8	16
136	Sub-second 2D NMR Spectroscopy at Sub-millimolar Concentrations. <i>Journal of the American Chemical Society</i> , 2004, 126, 11756-11757.	13.7	15
137	Ultrafast Solid-State 2D NMR Experiments via Orientational Encoding. <i>Journal of the American Chemical Society</i> , 2006, 128, 16014-16015.	13.7	15
138	Controlling Spin-Spin Network Dynamics by Repeated Projective Measurements. <i>Physical Review Letters</i> , 2012, 108, 140403.	7.8	15
139	Ultrafast in vivo diffusion imaging of stroke at 21.1 T by spatiotemporal encoding. <i>Magnetic Resonance in Medicine</i> , 2015, 73, 1483-1489.	3.0	15
140	Relaxation-Assisted Separation of Overlapping Patterns in Ultra-Wideline NMR Spectra. <i>Journal of Physical Chemistry A</i> , 2017, 121, 51-65.	2.5	15
141	Diffusivity in breast malignancies analyzed for $>1000 \text{ s/mm}^2$ at 1 mm in-plane resolutions: Insight from Gaussian and non-Gaussian behaviors. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 53, 1913-1925.	3.4	15
142	Solid State NMR of Drugs: Soluble Aspirin. <i>Analytical Letters</i> , 1987, 20, 1657-1666.	1.8	14
143	Non-Cartesian sampling schemes and the acquisition of 2D NMR correlation spectra from single-scan experiments. <i>Chemical Physics Letters</i> , 1994, 222, 371-377.	2.6	14
144	Solid-State ^{13}C NMR of Liquid Crystalline Polyesters: Variations in Morphology, Alignment, and Dynamics within a Homologous Series. <i>Macromolecules</i> , 2002, 35, 3544-3552.	4.8	14

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145	Separate-Local-Field NMR Spectroscopy on Half-Integer Quadrupolar Nuclei. <i>Journal of the American Chemical Society</i> , 2002, 124, 13344-13345.	13.7	14
146	Solid State Separated-Local-Field NMR Spectroscopy on Half-Integer Quadrupolar Nuclei: Principles and Applications to Borane Analysis. <i>Journal of the American Chemical Society</i> , 2003, 125, 7451-7460.	13.7	14
147	Cross-polarization phenomena in the NMR of fast spinning solids subject to adiabatic sweeps. <i>Journal of Chemical Physics</i> , 2015, 142, 064201.	3.0	14
148	Diffusion-weighted breast MRI of malignancies with submillimeter resolution and immunity to artifacts by spatiotemporal encoding at 3T. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 1391-1403.	3.0	14
149	Sensitivity Enhancement by Progressive Saturation of the Proton Reservoir: A Solid-State NMR Analogue of Chemical Exchange Saturation Transfer. <i>Journal of the American Chemical Society</i> , 2021, 143, 19778-19784.	13.7	14
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