

# Lucio Frydman

## List of Publications by Year in descending order

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227  
papers

10,454  
citations

43973

48  
h-index

40881

93  
g-index

242  
all docs

242  
docs citations

242  
times ranked

5587  
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>J</i> -Driven dynamic nuclear polarization for sensitizing high field solution state NMR. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 2118-2125.	1.3	6
2	On the potential of Fourier-encoded saturation transfers for sensitizing solid-state magic-angle spinning NMR experiments. <i>Journal of Chemical Physics</i> , 2022, 156, 054201.	1.2	5
3	Time- and site-resolved kinetic NMR for real-time monitoring of off-equilibrium reactions by 2D spectrotemporal correlations. <i>Nature Communications</i> , 2022, 13, 833.	5.8	6
4	<sup>1</sup> H, <sup>13</sup> C and <sup>15</sup> N chemical shift assignment of the stem-loops 5bâ€™+â€™c from the 5â€™-UTR of SARS-CoV-2. <i>Biomolecular NMR Assignments</i> , 2022, , 1.	0.4	0
5	HORRENDOUS NMR: Establishing correlations in solution-state NMR by reinstating non-secular <i>J</i> -coupling terms. <i>Journal of Magnetic Resonance</i> , 2022, 337, 107176.	1.2	0
6	A denoising method for multidimensional magnetic resonance spectroscopy and imaging based on compressed sensing. <i>Journal of Magnetic Resonance</i> , 2022, 338, 107187.	1.2	3
7	Hyperpolarized water as universal sensitivity booster in biomolecular NMR. <i>Nature Protocols</i> , 2022, 17, 1621-1657.	5.5	22
8	Identification of variable stages in murine pancreatic tumors by a multiparametric approach employing hyperpolarized <sup>13</sup> C MRSI, <sup>1</sup> H diffusivity and <sup>1</sup> H T <sub>1</sub> MRI. <i>NMR in Biomedicine</i> , 2021, 34, e4446.	1.6	7
9	Ultrafast 2D <sup>1</sup> Hâ€™ <sup>1</sup> H NMR spectroscopy of DNP-hyperpolarised substrates for the analysis of mixtures. <i>Chemical Communications</i> , 2021, 57, 8035-8038.	2.2	20
10	3D Heteronuclear Magnetization Transfers for the Establishment of Secondary Structures in SARS-CoV-2-Derived RNAs. <i>Journal of the American Chemical Society</i> , 2021, 143, 4942-4948.	6.6	8
11	JMR â€™ A joint farewell/incoming editorial. <i>Journal of Magnetic Resonance</i> , 2021, 325, 106960.	1.2	0
12	Parallel nuclear magnetic resonance spectroscopy. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	20
13	Magnetization Transfer to Enhance NOE Crossâ€™Peaks among Labile Protons: Applications to Iminoâ€™Imino Sequential Walks in SARSâ€™CoVâ€™2â€™Derived RNAs. <i>Angewandte Chemie</i> , 2021, 133, 11991-11998. <sup>1.6</sup>	1.6	7
14	Magnetization Transfer to Enhance NOE Crossâ€™Peaks among Labile Protons: Applications to Iminoâ€™Imino Sequential Walks in SARSâ€™CoVâ€™2â€™Derived RNAs. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 11884-11891.	7.2	11
15	High-field solution state DNP using cross-correlations. <i>Journal of Magnetic Resonance</i> , 2021, 326, 106940.	1.2	7
16	Deuterium MRSI characterizations of glucose metabolism in orthotopic pancreatic cancer mouse models. <i>NMR in Biomedicine</i> , 2021, 34, e4569.	1.6	17
17	Simultaneous multi-banding and multi-echo phase encoding for the accelerated acquisition of high-resolution volumetric diffusivity maps by spatiotemporally encoded MRI. <i>Magnetic Resonance Imaging</i> , 2021, 79, 130-139.	1.0	5
18	The Incorporation of Labile Protons into Multidimensional NMR Analyses: Glycan Structures Revisited. <i>Journal of the American Chemical Society</i> , 2021, 143, 8935-8948.	6.6	13

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19	Deuterium Magnetic Resonance Imaging and the Discrimination of Fetoplacental Metabolism in Normal and L-NAME-Induced Preeclamptic Mice. <i>Metabolites</i> , 2021, 11, 376.	1.3	13
20	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.	1.9	19
21	Steady-State Free Precession and Solid-State NMR: How, When, and Why. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1544-1556.	1.5	6
22	Diffusivity in breast malignancies analyzed for $>1000 \mu\text{s}/\text{mm}^2$ at $1 \text{ mm}$ in-plane resolutions: Insight from Gaussian and non-Gaussian behaviors. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 53, 1913-1925.	1.9	15
23	Heteronuclear transfers from labile protons in biomolecular NMR: Cross polarization, revisited. <i>Journal of Magnetic Resonance</i> , 2021, 333, 107083.	1.2	3
24	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.	6.6	14
25	The Extended Hadamard Transform: Sensitivity-Enhanced NMR Experiments Among Labile and Non-Labile $^1\text{H}$ s of SARS-CoV-2-derived RNAs. <i>ChemPhysChem</i> , 2021, , .	1.0	2
26	An Efficient, Robust New Scheme for Establishing Broadband Homonuclear Correlations in Biomolecular Solid State NMR. <i>ChemPhysChem</i> , 2020, 21, 284-294.	1.0	13
27	High-resolution diffusion MRI studies of development in pregnant mice visualized by novel spatiotemporal encoding schemes. <i>NMR in Biomedicine</i> , 2020, 33, e4208.	1.6	19
28	Multiparametric classification of subacute ischemic stroke recovery with ultrafast diffusion, $^{23}\text{Na}$ , and MPIO-labeled stem cell MRI at $21.1 \text{ T}$ . <i>NMR in Biomedicine</i> , 2020, 33, e4186.	1.6	4
29	Sensitivity enhancement of homonuclear multidimensional NMR correlations for labile sites in proteins, polysaccharides, and nucleic acids. <i>Nature Communications</i> , 2020, 11, 5317.	5.8	20
30	Secondary structure determination of conserved SARS-CoV-2 RNA elements by NMR spectroscopy. <i>Nucleic Acids Research</i> , 2020, 48, 12415-12435.	6.5	125
31	Diffusion and perfusion MRI of normal, preeclamptic and growth-restricted mice models reveal clear fetoplacental differences. <i>Scientific Reports</i> , 2020, 10, 16380.	1.6	3
32	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.	1.6	19
33	High-Resolution 3D in vivo Brain Diffusion Tensor Imaging at Ultrahigh Fields: Following Maturation on Juvenile and Adult Mice. <i>Frontiers in Neuroscience</i> , 2020, 14, 590900.	1.4	8
34	Keeping the magnetic resonance community in touch in times of pandemic, and beyond. <i>Journal of Magnetic Resonance</i> , 2020, 321, 106854.	1.2	0
35	Improving MRI's slice selectivity in the presence of strong, metal-derived inhomogeneities. <i>Magnetic Resonance Imaging</i> , 2020, 69, 71-80.	1.0	1
36	Diffusion-weighted breast MRI of malignancies with submillimeter resolution and immunity to artifacts by spatiotemporal encoding at $3 \text{ T}$ . <i>Magnetic Resonance in Medicine</i> , 2020, 84, 1391-1403.	1.9	14

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37	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.	1.6	17
38	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.	3.3	29
39	Dynamic T <sub>2</sub> mapping by multi-spin-echo spatiotemporal encoding. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 895-907.	1.9	9
40	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.	6.6	17
41	The Journal of Magnetic Resonance Golden Jubilee: Looking forward to our next 50 years. <i>Journal of Magnetic Resonance</i> , 2019, 306, 1-2.	1.2	1
42	Enhanced hyperpolarized chemical shift imaging based on a priori segmented information. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 3080-3093.	1.9	9
43	Large volume liquid state scalar Overhauser dynamic nuclear polarization at high magnetic field. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21200-21204.	1.3	16
44	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.	1.9	21
45	Brain sugar consumption during neuronal activation detected by CEST functional MRI at ultra-high magnetic fields. <i>Scientific Reports</i> , 2019, 9, 4423.	1.6	12
46	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.	1.7	18
47	Natural Abundance, Single-Scan <sup>13</sup> C-Based Structural Elucidations by Dissolution DNP NMR. <i>Journal of the American Chemical Society</i> , 2019, 141, 1857-1861.	6.6	10
48	Placental physiology monitored by hyperpolarized dynamic <sup>13</sup> C magnetic resonance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2429-E2436.	3.3	24
49	Phase-encoded xSPEN: A novel high-resolution volumetric alternative to RARE MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1492-1506.	1.9	17
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.	1.2	49
51	High-Resolution 2D NMR of Disordered Proteins Enhanced by Hyperpolarized Water. <i>Analytical Chemistry</i> , 2018, 90, 6169-6177.	3.2	36
52	Multiple-coil k-space interpolation enhances resolution in single-shot spatiotemporal MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 796-805.	1.9	16
53	Partial Fourier techniques in single-shot cross-term spatiotemporal encoded MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1506-1514.	1.9	3
54	Sensitivity-enhanced detection of non-labile proton and carbon NMR spectra on water resonances. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 56-62.	1.3	9

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55	Cover Image, Volume 31, Issue 11. NMR in Biomedicine, 2018, 31, e3827.	1.6	0
56	Brain investigations of rodent disease models by chemical exchange saturation transfer at 21.1%T. NMR in Biomedicine, 2018, 31, e3995.	1.6	9
57	Identification and Rationalization of Kinetic Folding Intermediates for a Low-Density Lipoprotein Receptor Ligand-Binding Module. Biochemistry, 2018, 57, 4776-4787.	1.2	4
58	Broadband adiabatic inversion cross-polarization phenomena in the NMR of rotating solids. Solid State Nuclear Magnetic Resonance, 2018, 94, 31-53.	1.5	10
59	Looped-PROjected Spectroscopy (L-PROSY): A simple approach to enhance backbone/sidechain cross-peaks in 1H NMR. Journal of Magnetic Resonance, 2018, 294, 169-180.	1.2	19
60	Single-scan MRI with exceptional resilience to field heterogeneities. Magnetic Resonance in Medicine, 2017, 77, 623-634.	1.9	20
61	Reducing SAR requirements in multislice volumetric single-shot spatiotemporal MRI by two-dimensional RF pulses. Magnetic Resonance in Medicine, 2017, 77, 1959-1965.	1.9	6
62	Transverse relaxation of selectively excited metabolites in stroke at 21.1%T. Magnetic Resonance in Medicine, 2017, 77, 520-528.	1.9	11
63	Efficient spectroscopic imaging by an optimized encoding of pretargeted resonances. Magnetic Resonance in Medicine, 2017, 77, 511-519.	1.9	1
64	Robust diffusion tensor imaging by spatiotemporal encoding: Principles and in vivo demonstrations. Magnetic Resonance in Medicine, 2017, 77, 1124-1133.	1.9	25
65	Structure and Dynamics of the Huntingtin Exon-1 N-Terminus: A Solution NMR Perspective. Journal of the American Chemical Society, 2017, 139, 1168-1176.	6.6	56
66	Heteronuclear 1D and 2D NMR Resonances Detected by Chemical Exchange Saturation Transfer to Water. Angewandte Chemie - International Edition, 2017, 56, 3521-3525.	7.2	10
67	Adiabatic sweep cross-polarization magic-angle-spinning NMR of half-integer quadrupolar spins. Journal of Magnetic Resonance, 2017, 277, 131-142.	1.2	7
68	Heteronuclear 1D and 2D NMR Resonances Detected by Chemical Exchange Saturation Transfer to Water. Angewandte Chemie, 2017, 129, 3575-3579.	1.6	0
69	1H-2H cross-polarization NMR in fast spinning solids by adiabatic sweeps. Journal of Chemical Physics, 2017, 146, 104201.	1.2	11
70	A discrete Fourier-encoded, diagonal-free experiment to simplify homonuclear 2D NMR correlations. Journal of Chemical Physics, 2017, 147, 034201.	1.2	2
71	Internal gradient distributions: A susceptibility-derived tensor delivering morphologies by magnetic resonance. Scientific Reports, 2017, 7, 3311.	1.6	12
72	A fast approach to 3D HSQC-based spectroscopy based on a Fourier phase encoding of pre-targeted resonances. Journal of Magnetic Resonance, 2017, 274, 95-102.	1.2	3

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73	Relaxation-Assisted Separation of Overlapping Patterns in Ultra-Wideline NMR Spectra. Journal of Physical Chemistry A, 2017, 121, 51-65.	1.1	15
74	Diffusion MRI measurements in challenging head and brain regions via cross-term spatiotemporally encoding. Scientific Reports, 2017, 7, 18010.	1.6	13
75	Distinguishing neuronal from astrocytic subcellular microstructures using in vivo Double Diffusion Encoded 1H MRS at 21.1 T. PLoS ONE, 2017, 12, e0185232.	1.1	24
76	Removing silicone artifacts in diffusion-weighted breast MRI by means of shift-resolved spatiotemporally encoding. Magnetic Resonance in Medicine, 2016, 75, 2064-2071.	1.9	10
77	Interleaved multishot imaging by spatiotemporal encoding: A fast, self-referenced method for high-definition diffusion and functional MRI. Magnetic Resonance in Medicine, 2016, 75, 1935-1948.	1.9	27
78	Toward 20Â magnetic resonance for human brain studies: opportunities for discovery and neuroscience rationale. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 617-639.	1.1	66
79	Nuclear hyperpolarization comes of age. Journal of Magnetic Resonance, 2016, 264, 1-2.	1.2	17
80	Acquiring and processing ultrafast biomolecular 2D NMR experiments using a referenced-based correction. Journal of Biomolecular NMR, 2016, 66, 141-157.	1.6	6
81	Sculpting 3D spatial selectivity with pairs of 2D pulses: A comparison of methods. Journal of Magnetic Resonance, 2016, 273, 9-18.	1.2	1
82	On The Potential of Dynamic Nuclear Polarization Enhanced Diamonds in Solid-State and Dissolution <sup>13</sup> Câ€NMR Spectroscopy. ChemPhysChem, 2016, 17, 2611-2611.	1.0	1
83	Following Metabolism in Living Microorganisms by Hyperpolarized <sup>1</sup> H NMR. Journal of the American Chemical Society, 2016, 138, 12278-12286.	6.6	18
84	On The Potential of Dynamic Nuclear Polarization Enhanced Diamonds in Solidâ€State and Dissolution <sup>13</sup> Câ€NMR Spectroscopy. ChemPhysChem, 2016, 17, 2691-2701.	1.0	21
85	Multidimensional J-driven NMR correlations by single-scan offset-encoded recoupling. Journal of Magnetic Resonance, 2016, 265, 33-44.	1.2	3
86	Optimizing water hyperpolarization and dissolution for sensitivity-enhanced 2D biomolecular NMR. Journal of Magnetic Resonance, 2016, 264, 49-58.	1.2	44
87	HyperBIRD: A Sensitivityâ€Enhanced Approach to Collecting Homonuclearâ€Decoupled Proton NMR Spectra. Angewandte Chemie - International Edition, 2015, 54, 594-598.	7.2	12
88	Ultrafast in vivo diffusion imaging of stroke at 21.1 T by spatiotemporal encoding. Magnetic Resonance in Medicine, 2015, 73, 1483-1489.	1.9	15
89	Multidimensional <sup>1</sup> H NMR spectroscopy in a single scan. Magnetic Resonance in Chemistry, 2015, 53, 971-985.	1.1	16
90	Facing and Overcoming Sensitivity Challenges in Biomolecular NMR Spectroscopy. Angewandte Chemie - International Edition, 2015, 54, 9162-9185.	7.2	258

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91	Size Distribution Imaging by Non-Uniform Oscillating-Gradient Spin Echo (NOGSE) MRI. PLoS ONE, 2015, 10, e0133201.	1.1	32
92	Single-Sided Stray-Field NMR Profiling Using Chirped Radiofrequency Pulses. Applied Magnetic Resonance, 2015, 46, 909-919.	0.6	3
93	Correcting surface coil excitation inhomogeneities in single-shot SPEN MRI. Journal of Magnetic Resonance, 2015, 259, 199-206.	1.2	5
94	Local and bulk <sup>13</sup> C hyperpolarization in nitrogen-vacancy-centred diamonds at variable fields and orientations. Nature Communications, 2015, 6, 8456.	5.8	83
95	Hyperpolarized NMR of plant and cancer cell extracts at natural abundance. Analyst, The, 2015, 140, 5860-5863.	1.7	87
96	fMRI contrast at high and ultrahigh magnetic fields: Insight from complementary methods. NeuroImage, 2015, 113, 37-43.	2.1	21
97	Cross-polarization phenomena in the NMR of fast spinning solids subject to adiabatic sweeps. Journal of Chemical Physics, 2015, 142, 064201.	1.2	14
98	MRSI via fully-refocused spatiotemporal encoding with polychromatic spectral pulses. Journal of Magnetic Resonance, 2015, 259, 24-31.	1.2	4
99	Overcoming limitations in diffusion-weighted MRI of breast by spatiotemporal encoding. Magnetic Resonance in Medicine, 2015, 73, 2163-2173.	1.9	34
100	Diffusion-assisted selective dynamical recoupling: A new approach to measure background gradients in magnetic resonance. Journal of Chemical Physics, 2014, 140, 084205.	1.2	11
101	Reducing acquisition times in multidimensional NMR with a time-optimized Fourier encoding algorithm. Journal of Chemical Physics, 2014, 141, 194201.	1.2	17
102	Parametric analysis of the spatial resolution and signal-to-noise ratio in super-resolved spatiotemporally encoded (SPEN) MRI. Magnetic Resonance in Medicine, 2014, 72, 418-429.	1.9	28
103	Major mouse placental compartments revealed by diffusion-weighted MRI, contrast-enhanced MRI, and fluorescence imaging. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10353-10358.	3.3	44
104	Metabolic properties in stroked rats revealed by relaxation-enhanced magnetic resonance spectroscopy at ultrahigh fields. Nature Communications, 2014, 5, 4958.	5.8	53
105	Chirped CPMG for well-logging NMR applications. Journal of Magnetic Resonance, 2014, 242, 197-202.	1.2	27
106	In vivo single-shot <sup>13</sup> C spectroscopic imaging of hyperpolarized metabolites by spatiotemporal encoding. Journal of Magnetic Resonance, 2014, 240, 8-15.	1.2	38
107	Super-resolved parallel MRI by spatiotemporal encoding. Magnetic Resonance Imaging, 2014, 32, 60-70.	1.0	25
108	On the Potential of Hyperpolarized Water in Biomolecular NMR Studies. Journal of Physical Chemistry B, 2014, 118, 3281-3290.	1.2	63

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109	Homonuclear Decoupling of <sup>1</sup> H Dipolar Interactions in Solids by means of Heteronuclear Recoupling. <i>Israel Journal of Chemistry</i> , 2014, 54, 154-162.	1.0	2
110	Heteronuclear Cross-Relaxation Effects in the NMR Spectroscopy of Hyperpolarized Targets. <i>ChemPhysChem</i> , 2014, 15, 436-443.	1.0	17
111	Ultrafast 2D NMR: An Emerging Tool in Analytical Spectroscopy. <i>Annual Review of Analytical Chemistry</i> , 2014, 7, 129-161.	2.8	141
112	Metabolic T <sub>1</sub> Dynamics and Longitudinal Relaxation Enhancement <i>In Vivo</i> at Ultrahigh Magnetic Fields on Ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 1810-1817.	2.4	10
113	Simultaneous spatial and spectral selectivity by spatiotemporal encoding. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 746-755.	1.9	4
114	New spatiotemporal approaches for fully refocused, multislice ultrafast 2D MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 711-722.	1.9	54
115	Referenceless reconstruction of spatiotemporally encoded imaging data: Principles and applications to real-time MRI. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 1687-1695.	1.9	41
116	Hyperpolarized Functional Magnetic Resonance of Murine Skeletal Muscle Enabled by Multiple Tracer-Paradigm Synchronizations. <i>PLoS ONE</i> , 2014, 9, e96399.	1.1	10
117	Ultrafast NMR <i>T<sub>1</sub></i> Relaxation Measurements: Probing Molecular Properties in Real Time. <i>ChemPhysChem</i> , 2013, 14, 3138-3145.	1.0	40
118	Coherent Dynamical Recoupling of Diffusion-Driven Decoherence in Magnetic Resonance. <i>Physical Review Letters</i> , 2013, 111, 080404.	2.9	24
119	Two-dimensional RF pulses: A new approach to selectively exciting J-coupled spins in nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , 2013, 139, 144204.	1.2	3
120	Multidimensional excitation pulses based on spatiotemporal encoding concepts. <i>Journal of Magnetic Resonance</i> , 2013, 226, 22-34.	1.2	26
121	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.	1.2	34
122	Diffusion weighted MRI by spatiotemporal encoding: Analytical description and in vivo validations. <i>Journal of Magnetic Resonance</i> , 2013, 232, 76-86.	1.2	44
123	Multiple Parallel 2D...NMR Acquisitions in a Single Scan. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4152-4155.	7.2	29
124	Alleviating artifacts in <sup>1</sup> H MRI thermometry by single scan spatiotemporal encoding. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2013, 26, 477-490.	1.1	7
125	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.	1.9	25
126	In vivo magnetic resonance of hyperpolarized [ <sup>13</sup> C <sub>1</sub> ]pyruvate: metabolic dynamics in stimulated muscle. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2013, 305, E1165-E1171.	1.8	8



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127	Bulk Nuclear Polarization Enhanced at Room Temperature by Optical Pumping. <i>Physical Review Letters</i> , 2013, 111, 057601.	2.9	106
128	Rapid Acquisition of <sup>14</sup> N Solid-State NMR Spectra with Broadband Cross Polarization. <i>Chemistry - A European Journal</i> , 2013, 19, 16469-16475.	1.7	42
129	Longitudinal Relaxation Enhancement in <sup>1</sup> H NMR Spectroscopy of Tissue Metabolites via Spectrally Selective Excitation. <i>Chemistry - A European Journal</i> , 2013, 19, 13002-13008.	1.7	25
130	Controlling Spin-Spin Network Dynamics by Repeated Projective Measurements. <i>Physical Review Letters</i> , 2012, 108, 140403.	2.9	15
131	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.	3.3	18
132	Fully refocused multi-shot spatiotemporally encoded MRI: robust imaging in the presence of metallic implants. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2012, 25, 433-442.	1.1	12
133	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.	6.6	56
134	Broadband adiabatic inversion pulses for cross polarization in wideline solid-state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2012, 224, 38-47.	1.2	103
135	Functional MRI using super-resolved spatiotemporal encoding. <i>Magnetic Resonance Imaging</i> , 2012, 30, 1401-1408.	1.0	24
136	Toward single-shot pure-shift solution <sup>1</sup> H NMR by trains of BIRD-based homonuclear decoupling. <i>Journal of Magnetic Resonance</i> , 2012, 218, 141-146.	1.2	128
137	Factors Affecting DNP NMR in Polycrystalline Diamond Samples. <i>Journal of Physical Chemistry C</i> , 2011, 115, 19041-19048.	1.5	72
138	Dissolution DNP NMR with solvent mixtures: Substrate concentration and radical extraction. <i>Journal of Magnetic Resonance</i> , 2011, 211, 96-100.	1.2	47
139	Spatiotemporal encoding as a robust basis for fast three-dimensional <i>in vivo</i> MRI. <i>NMR in Biomedicine</i> , 2011, 24, 1191-1201.	1.6	44
140	Kinetics from Indirectly Detected Hyperpolarized NMR Spectroscopy by Using Spatially Selective Coherence Transfers. <i>Chemistry - A European Journal</i> , 2011, 17, 697-703.	1.7	30
141	Sensitizing solid state nuclear magnetic resonance of dilute nuclei by spin-diffusion assisted polarization transfers. <i>Journal of Chemical Physics</i> , 2011, 135, 134202.	1.2	11
142	Perfect state transfers by selective quantum interferences within complex spin networks. <i>Physical Review A</i> , 2010, 81, .	1.0	31
143	<sup>1</sup> H NMR noise measurements in hyperpolarized liquid samples. <i>Chemical Physics Letters</i> , 2010, 489, 107-112.	1.2	21
144	Super-resolved spatially encoded single-scan 2D MRI. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1594-1600.	1.9	71

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145	Single-scan multidimensional magnetic resonance. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2010, 57, 241-292.	3.9	245
146	High-definition, single-scan 2D MRI in inhomogeneous fields using spatial encoding methods. <i>Magnetic Resonance Imaging</i> , 2010, 28, 77-86.	1.0	73
147	Zeno and Anti-Zeno Polarization Control of Spin Ensembles by Induced Dephasing. <i>Physical Review Letters</i> , 2010, 105, 160401.	2.9	63
148	Native-unlike Long-lived Intermediates along the Folding Pathway of the Amyloidogenic Protein $\beta$ 2-Microglobulin Revealed by Real-time Two-dimensional NMR. <i>Journal of Biological Chemistry</i> , 2010, 285, 5827-5835.	1.6	55
149	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.	3.3	98
150	Spatial/spectral encoding of the spin interactions in ultrafast multidimensional NMR. <i>Journal of Chemical Physics</i> , 2009, 131, 224516.	1.2	45
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