

# Rolf Gruetter

## List of Publications by Year in descending order

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319  
papers

22,848  
citations

7568  
77  
h-index

11939  
134  
g-index

331  
all docs

331  
docs citations

331  
times ranked

15666  
citing authors

#	ARTICLE	IF	CITATIONS
1	[13C]bicarbonate labelled from hyperpolarized [1-13C]pyruvate is an in vivo marker of hepatic gluconeogenesis in fasted state. Communications Biology, 2022, 5, 10.	4.4	3
2	Segmenting electroencephalography wires reduces radiofrequency shielding artifacts in simultaneous electroencephalography and functional magnetic resonance imaging at 7 T. Magnetic Resonance in Medicine, 2022, , .	3.0	2
3	Excitatory/inhibitory neuronal metabolic balance in mouse hippocampus upon infusion of [U- <sup>13</sup> C <sub>6</sub> ]glucose. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 282-297.	4.3	4
4	B <sub>0</sub> shimming for in vivo magnetic resonance spectroscopy: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4350.	2.8	60
5	Contribution of macromolecules to brain <sup>1</sup> H MR spectra: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4393.	2.8	92
6	Magnetic resonance spectroscopy in the rodent brain: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4325.	2.8	9
7	PIRACY: An Optimized Pipeline for Functional Connectivity Analysis in the Rat Brain. Frontiers in Neuroscience, 2021, 15, 602170.	2.8	12
8	Hyperpolarized 13C-glucose magnetic resonance highlights reduced aerobic glycolysis in vivo in infiltrative glioblastoma. Scientific Reports, 2021, 11, 5771.	3.3	13
9	The relationship between EEG and fMRI connectomes is reproducible across simultaneous EEG-fMRI studies from 1.5T to 7T. NeuroImage, 2021, 231, 117864.	4.2	24
10	Measuring Glycolytic Activity with Hyperpolarized [2H7, U-13C6] D-Glucose in the Naive Mouse Brain under Different Anesthetic Conditions. Metabolites, 2021, 11, 413.	2.9	7
11	Dipole-Fed Rectangular Dielectric Resonator Antennas for Magnetic Resonance Imaging at 7ÂT: The Impact of Quasi-Transverse Electric Modes on Transmit Field Distribution. Frontiers in Physics, 2021, 9, .	2.1	5
12	Radical-free hyperpolarized MRI using endogenously occurring pyruvate analogues and UV-induced nonpersistent radicals. NMR in Biomedicine, 2021, 34, e4584.	2.8	2
13	Evaluation of the whole auditory pathway using high-resolution and functional MRI at 7T parallel-transmit. PLoS ONE, 2021, 16, e0254378.	2.5	3
14	Late postnatal neurometabolic development in healthy male rats using 1 H and 31 P magnetic resonance spectroscopy. Journal of Neurochemistry, 2021, 157, 508-519.	3.9	4
15	Metabolite concentration changes associated with positive and negative BOLD responses in the human visual cortex: A functional MRS study at 7 Tesla. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 488-500.	4.3	40
16	<sup>13</sup> C Dynamic Nuclear Polarization using SA-BDPA at 6.7 T and 1.1 K: Coexistence of Pure Thermal Mixing and Well-Resolved Solid Effect. Journal of Physical Chemistry Letters, 2020, 11, 6873-6879.	4.6	7
17	Glutamine-to-glutamate ratio in the nucleus accumbens predicts effort-based motivated performance in humans. Neuropsychopharmacology, 2020, 45, 2048-2057.	5.4	16
18	Mitochondrial gene signature in the prefrontal cortex for differential susceptibility to chronic stress. Scientific Reports, 2020, 10, 18308.	3.3	43

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19	Impact of aerobic exercise type on blood flow, muscle energy metabolism, and mitochondrial biogenesis in experimental lower extremity artery disease. <i>Scientific Reports</i> , 2020, 10, 14048.	3.3	6
20	Metabolic and perfusion responses to acute hypoglycemia in the rat cortex: A non-invasive magnetic resonance approach. <i>Journal of Neurochemistry</i> , 2020, 154, 71-83.	3.9	2
21	Brain NAD Is Associated With ATP Energy Production and Membrane Phospholipid Turnover in Humans. <i>Frontiers in Aging Neuroscience</i> , 2020, 12, 609517.	3.4	23
22	Metabolic signature in nucleus accumbens for anti-depressant-like effects of acetyl-L-carnitine. <i>ELife</i> , 2020, 9, .	6.0	45
23	Combined deletion of Glut1 and Glut3 impairs lung adenocarcinoma growth. <i>ELife</i> , 2020, 9, .	6.0	18
24	N-Acetyl-Cysteine Supplementation Improves Functional Connectivity Within the Cingulate Cortex in Early Psychosis: A Pilot Study. <i>International Journal of Neuropsychopharmacology</i> , 2019, 22, 478-487.	2.1	25
25	Multi-slice passband bSSFP for human and rodent fMRI at ultra-high field. <i>Journal of Magnetic Resonance</i> , 2019, 305, 31-40.	2.1	9
26	A combined 32-channel receive-loops/8-channel transmit-dipoles coil array for whole-brain MR imaging at 7T. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 1229-1241.	3.0	35
27	Capturing the spatiotemporal dynamics of self-generated, task-initiated thoughts with EEG and fMRI. <i>NeuroImage</i> , 2019, 194, 82-92.	4.2	171
28	Methodological consensus on clinical proton MRS of the brain: Review and recommendations. <i>Magnetic Resonance in Medicine</i> , 2019, 82, 527-550.	3.0	280
29	Investigating the variability of cardiac pulse artifacts across heartbeats in simultaneous EEG-fMRI recordings: A 7T study. <i>NeuroImage</i> , 2019, 191, 21-35.	4.2	19
30	Improved off-resonance phase behavior using a phase-inverted adiabatic half-passage pulse for <sup>13</sup> C MRS in humans at 7 T. <i>NMR in Biomedicine</i> , 2019, 32, e4171.	2.8	1
31	A human cerebral and cerebellar 8-channel transceive RF dipole coil array at 7T. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 1447-1458.	3.0	36
32	Nucleus accumbens neurochemistry in human anxiety: A 7 T 1H-MRS study. <i>European Neuropsychopharmacology</i> , 2019, 29, 365-375.	0.7	32
33	High-fat diet consumption alters energy metabolism in the mouse hypothalamus. <i>International Journal of Obesity</i> , 2019, 43, 1295-1304.	3.4	37
34	Alterations of Brain Energy Metabolism in Type 2 Diabetic Goto-Kakizaki Rats Measured In Vivo by <sup>13</sup> C Magnetic Resonance Spectroscopy. <i>Neurotoxicity Research</i> , 2019, 36, 268-278.	2.7	29
35	Glucose transporter 2 mediates the hypoglycemia-induced increase in cerebral blood flow. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 1725-1736.	4.3	5
36	Evolution of the neurochemical profiles in the G93A-SOD1 mouse model of amyotrophic lateral sclerosis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 1283-1298.	4.3	22

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37	Probing cardiac metabolism by hyperpolarized $^{13}\text{C}$ MR using an exclusively endogenous substrate mixture and photoinduced nonpersistent radicals. Magnetic Resonance in Medicine, 2018, 79, 2451-2459.	3.0	18
38	Mapping and characterization of positive and negative BOLD responses to visual stimulation in multiple brain regions at 7T. Human Brain Mapping, 2018, 39, 2426-2441.	3.6	27
39	Feasibility of in vivo measurement of glucose metabolism in the mouse hypothalamus by $^1\text{H}$ - $^{13}\text{C}$ MRS at 14.1T. Magnetic Resonance in Medicine, 2018, 80, 874-884.	3.0	11
40	In Vivo Heteronuclear Magnetic Resonance Spectroscopy. Methods in Molecular Biology, 2018, 1718, 169-187.	0.9	8
41	<i>In vivo</i> characterization of brain metabolism by $^1\text{H}$ MRS, $^{13}\text{C}$ MRS and $^{18}\text{F}$ FDG PET reveals significant glucose oxidation of invasively growing glioma cells. International Journal of Cancer, 2018, 143, 127-138.	5.1	16
42	F44. AN ADD-ON TRIAL WITH N-ACETYL-CYSTEINE (NAC) IN EARLY PSYCHOSIS PATIENTS: TOWARDS BIOMARKER GUIDED TREATMENT. Schizophrenia Bulletin, 2018, 44, S236-S236.	4.3	0
43	<i>In vivo</i> $^{13}\text{C}$ MRS in the mouse brain at 14.1 Tesla and metabolic flux quantification under infusion of $[1,6\text{-}^{13}\text{C}_2]\text{glucose}$ . Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 1701-1714.	4.3	16
44	N-acetylcysteine in a Double-Blind Randomized Placebo-Controlled Trial: Toward Biomarker-Guided Treatment in Early Psychosis. Schizophrenia Bulletin, 2018, 44, 317-327.	4.3	121
45	Cannabis use in early psychosis is associated with reduced glutamate levels in the prefrontal cortex. Psychopharmacology, 2018, 235, 13-22.	3.1	27
46	Increased hepatic fatty acid polyunsaturation precedes ectopic lipid deposition in the liver in adaptation to high-fat diets in mice. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 341-354.	2.0	15
47	Astrocytic and neuronal oxidative metabolism are coupled to the rate of glutamate-glutamine cycle in the tree shrew visual cortex. Glia, 2018, 66, 477-491.	4.9	45
48	N-acetylcysteine add-on treatment leads to an improvement of fornix white matter integrity in early psychosis: a double-blind randomized placebo-controlled trial. Translational Psychiatry, 2018, 8, 220.	4.8	44
49	T52. N-ACETYL-CYSTEINE ADD-ON TREATMENT LEADS TO AN IMPROVEMENT OF FORNIX WHITE MATTER INTEGRITY IN EARLY PSYCHOSIS. Schizophrenia Bulletin, 2018, 44, S133-S134.	4.3	1
50	Nutritional Ketosis Increases NAD <sup>+</sup> /NADH Ratio in Healthy Human Brain: An in Vivo Study by $^{31}\text{P}$ -MRS. Frontiers in Nutrition, 2018, 5, 62.	3.7	62
51	Impact of Caffeine Consumption on Type 2 Diabetes-Induced Spatial Memory Impairment and Neurochemical Alterations in the Hippocampus. Frontiers in Neuroscience, 2018, 12, 1015.	2.8	40
52	Clinical Neuroimaging Using 7 T MRI: Challenges and Prospects. Journal of Neuroimaging, 2018, 28, 5-13.	2.0	24
53	Technical and experimental features of Magnetic Resonance Spectroscopy of brain glycogen metabolism. Analytical Biochemistry, 2017, 529, 117-126.	2.4	8
54	Glycogen Supercompensation in the Rat Brain After Acute Hypoglycemia is Independent of Glucose Levels During Recovery. Neurochemical Research, 2017, 42, 1629-1635.	3.3	19

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55	Progress towards inÂvivo brain 13C-MRS in mice: Metabolic flux analysis in small tissue volumes. Analytical Biochemistry, 2017, 529, 229-244.	2.4	13
56	Energy metabolism in the rat cortex under thiopental anaesthesia measured <i>In Vivo</i> by <sup>13</sup>C MRS. Journal of Neuroscience Research, 2017, 95, 2297-2306.	2.9	14
57	Studying cyto and myeloarchitecture of the human cortex at ultra-high field with quantitative imaging: R1, R2* and magnetic susceptibility. Neurolmage, 2017, 147, 152-163.	4.2	80
58	Measuring glucose cerebral metabolism in the healthy mouse using hyperpolarized 13C magnetic resonance. Scientific Reports, 2017, 7, 11719.	3.3	43
59	Social isolation stress and chronic glutathione deficiency have a common effect on the glutamineâ€œglutamate ratio and <i>myo</i>â€œinositol concentration in the mouse frontal cortex. Journal of Neurochemistry, 2017, 142, 767-775.	3.9	15
60	Hierarchical Status Predicts Behavioral Vulnerability and Nucleus Accumbens Metabolic Profile Following Chronic Social Defeat Stress. Current Biology, 2017, 27, 2202-2210.e4.	3.9	161
61	Influence of physiological noise on accelerated 2D and 3D resting state functional MRI data at 7â€œT. Magnetic Resonance in Medicine, 2017, 78, 888-896.	3.0	34
62	Sexual dimorphism in hepatic lipids is associated with the evolution of metabolic status in mice. NMR in Biomedicine, 2017, 30, e3761.	2.8	11
63	Diffusionâ€œweighted MRS of acetate in the rat brain. NMR in Biomedicine, 2017, 30, e3768.	2.8	5
64	Prospective head motion correction using FIDâ€œguided onâ€œdemand image navigators. Magnetic Resonance in Medicine, 2017, 78, 193-203.	3.0	11
65	How Energy Metabolism Supports Cerebral Function: Insights from 13C Magnetic Resonance Studies In vivo. Frontiers in Neuroscience, 2017, 11, 288.	2.8	64
66	Retrospective correction of involuntary microscopic head movement using highly accelerated fat image navigators (3D FatNavs) at 7T. Magnetic Resonance in Medicine, 2016, 75, 1030-1039.	3.0	110
67	Genetic Polymorphism Associated Prefrontal Glutathione and Its Coupling With Brain Glutamate and Peripheral Redox Status in Early Psychosis. Schizophrenia Bulletin, 2016, 42, 1185-1196.	4.3	83
68	Hyperpolarized <sup>6</sup>Li as a probe for hemoglobin oxygenation level. Contrast Media and Molecular Imaging, 2016, 11, 41-46.	0.8	15
69	Simultaneous and interleaved acquisition of <scp>NMR</scp> signals from different nuclei with a clinical <scp>MRI</scp> scanner. Magnetic Resonance in Medicine, 2016, 76, 1636-1641.	3.0	29
70	Early detection of human glioma sphere xenografts in mouse brain using diffusion MRI at 14.1â€œT. NMR in Biomedicine, 2016, 29, 1577-1589.	2.8	9
71	Simultaneous and interleaved acquisition of NMR signals from different nuclei with a clinical MRI scanner. Magnetic Resonance in Medicine, 2016, 76, spcone-spcone.	3.0	1
72	Threeâ€œdimensional echo planar imaging with controlled aliasing: A sequence for high temporal resolution functional MRI. Magnetic Resonance in Medicine, 2016, 75, 2350-2361.	3.0	53

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73	Retrospective correction of involuntary microscopic head movement using highly accelerated fat image navigators (3D FatNavs) at 7T. Magnetic Resonance in Medicine, 2016, 75, spcone.	3.0	0
74	Glutathione Deficit Affects the Integrity and Function of the Fimbria/Fornix and Anterior Commissure in Mice: Relevance for Schizophrenia. International Journal of Neuropsychopharmacology, 2016, 19, pyv110.	2.1	40
75	3D T2-weighted imaging at 7T using dynamic kT-points on single-transmit MRI systems. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 347-358.	2.0	12
76	Refined Analysis of Brain Energy Metabolism Using In Vivo Dynamic Enrichment of <sup>13</sup> C Multiplets. ASN Neuro, 2016, 8, 175909141663234.	2.7	13
77	Compartmentalised energy metabolism supporting glutamatergic neurotransmission in response to increased activity in the rat cerebral cortex: A <sup>13</sup> C MRS study <i>in vivo</i> at 14.1 T. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 928-940.	4.3	46
78	Quantitative activity-induced manganese-dependent MRI for characterizing cortical layers in the primary somatosensory cortex of the rat. Brain Structure and Function, 2016, 221, 695-707.	2.3	2
79	Parallel imaging with phase scrambling. Magnetic Resonance in Medicine, 2015, 73, 1407-1419.	3.0	11
80	Single acquisition electrical property mapping based on relative coil sensitivities: A proof-of-concept demonstration. Magnetic Resonance in Medicine, 2015, 74, 185-195.	3.0	29
81	Characterization of hepatic fatty acids in mice with reduced liver fat by ultra-short echo time <sup>1</sup> H-MRS at 14.1 T <i>in vivo</i> . NMR in Biomedicine, 2015, 28, 1009-1020.	2.8	12
82	Imaging of prolonged BOLD response in the somatosensory cortex of the rat. NMR in Biomedicine, 2015, 28, 414-421.	2.8	15
83	Stroking or Buzzing? A Comparison of Somatosensory Touch Stimuli Using 7 Tesla fMRI. PLoS ONE, 2015, 10, e0134610.	2.5	14
84	Distinct contributions of Brodmann areas 1 and 2 to body ownership. Social Cognitive and Affective Neuroscience, 2015, 10, 1449-1459.	3.0	22
85	Fast low-specific absorption rate B <sub>0</sub> -mapping along projections at high field using two-dimensional radiofrequency pulses. Magnetic Resonance in Medicine, 2015, 73, 901-908.	3.0	11
86	Correcting surface coil excitation inhomogeneities in single-shot SPEN MRI. Journal of Magnetic Resonance, 2015, 259, 199-206.	2.1	5
87	A double-quadrature radiofrequency coil design for proton-decoupled carbon- <sup>13</sup> magnetic resonance spectroscopy in humans at 7T. Magnetic Resonance in Medicine, 2015, 73, 894-900.	3.0	18
88	Assessment of Metabolic Fluxes in the Mouse Brain <i>in Vivo</i> Using <sup>1</sup> H-[ <sup>13</sup> C] NMR Spectroscopy at 14.1 Tesla. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 759-765.	4.3	22
89	Physiological noise in human cerebellar fMRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2015, 28, 485-492.	2.0	14
90	Towards high-quality simultaneous EEG-fMRI at 7 T: Detection and reduction of EEG artifacts due to head motion. NeuroImage, 2015, 120, 143-153.	4.2	53

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91	In Vivo Longitudinal 1H MRS Study of Transgenic Mouse Models of Prion Disease in the Hippocampus and Cerebellum at 14.1T. Neurochemical Research, 2015, 40, 2639-2646.	3.3	6
92	Direct noninvasive estimation of myocardial tricarboxylic acid cycle flux in vivo using hyperpolarized 13C magnetic resonance. Journal of Molecular and Cellular Cardiology, 2015, 87, 129-137.	1.9	30
93	GDH-Dependent Glutamate Oxidation in the Brain Dictates Peripheral Energy Substrate Distribution. Cell Reports, 2015, 13, 365-375.	6.4	49
94	Brain energy metabolism measured by <sup>13</sup> C magnetic resonance spectroscopy in vivo upon infusion of [3- <sup>13</sup> C]lactate. Journal of Neuroscience Research, 2015, 93, 1009-1018.	2.9	21
95	A modulated closed form solution for quantitative susceptibility mapping – A thorough evaluation and comparison to iterative methods based on edge prior knowledge. NeuroImage, 2015, 107, 163-174.	4.2	47
96	Simultaneous EEG-fMRI at ultra-high field: Artifact prevention and safety assessment. NeuroImage, 2015, 105, 132-144.	4.2	63
97	Glutathione deficit impairs myelin maturation: relevance for white matter integrity in schizophrenia patients. Molecular Psychiatry, 2015, 20, 827-838.	7.9	95
98	Non-Invasive Diagnostic Biomarkers for Estimating the Onset Time of Permanent Cerebral Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1848-1855.	4.3	20
99	Definition and quantification of acute inflammatory white matter injury in the immature brain by MRI/MRS at high magnetic field. Pediatric Research, 2014, 75, 415-423.	2.3	24
100	Ultra-high field birdcage coils: A comparison study at 14.1T. , 2014, 2014, 2360-3.		5
101	Localized Single-Voxel Magnetic Resonance Spectroscopy, Water Suppression, and Novel Approaches for Ultrashort Echo-Time Measurements. , 2014, , 15-30.		5
102	Improved temporal resolution for functional studies with reduced number of segments with three-dimensional echo planar imaging. Magnetic Resonance in Medicine, 2014, 72, 786-792.	3.0	9
103	In vivo quantification of neuroglial metabolism and glial glutamate concentration using <sup>1</sup> H- <sup>13</sup> C MRS at 14.1T. Journal of Neurochemistry, 2014, 128, 125-139.	3.9	38
104	An improved trap design for decoupling multinuclear RF coils. Magnetic Resonance in Medicine, 2014, 72, 584-590.	3.0	51
105	Phase-based manganese enhanced MRI, a new methodology to enhance brain cytoarchitectural contrast and study manganese uptake. Magnetic Resonance in Medicine, 2014, 72, 1246-1256.	3.0	3
106	Optimized MEGA-SPECIAL for in vivo glutamine detection in the rat brain at 14.1T. NMR in Biomedicine, 2014, 27, 1151-1158.	2.8	2
107	Experimental peripheral arterial disease: new insights into muscle glucose uptake, macrophage, and T-cell polarization during early and late stages. Physiological Reports, 2014, 2, e00234.	1.7	14
108	Human finger somatotopy in areas 3b, 1, and 2: A 7T fMRI study using a natural stimulus. Human Brain Mapping, 2014, 35, 213-226.	3.6	182



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109	Are glutamate and lactate increases ubiquitous to physiological activation? A <sup>1</sup> H functional MR spectroscopy study during motor activation in human brain at 7Tesla. <i>NeuroImage</i> , 2014, 93, 138-145.	4.2	90
110	Hyperpolarized <sup>13</sup> C lactate as a substrate for in vivo metabolic studies in skeletal muscle. <i>Metabolomics</i> , 2014, 10, 986-994.	3.0	24
111	<i>In vivo</i> brain macromolecule signals in healthy and glioblastoma mouse models: <sup>1</sup> H magnetic resonance spectroscopy, post-processing and metabolite quantification at 14.1 T. <i>Journal of Neurochemistry</i> , 2014, 129, 806-815.	3.9	17
112	Protective effects of maternal nutritional supplementation with lactoferrin on growth and brain metabolism. <i>Pediatric Research</i> , 2014, 75, 51-61.	2.3	33
113	Is the macromolecule signal tissue-specific in healthy human brain? A <sup>1</sup> H MRS study at 7 tesla in the occipital lobe. <i>Magnetic Resonance in Medicine</i> , 2014, 72, 934-940.	3.0	51
114	Image-Derived Input Function from the Vena Cava for <sup>18</sup> F-FDG PET Studies in Rats and Mice. <i>Journal of Nuclear Medicine</i> , 2014, 55, 1380-1388.	5.0	53
115	Clinical Proton MR Spectroscopy in Central Nervous System Disorders. <i>Radiology</i> , 2014, 270, 658-679.	7.3	524
116	Longitudinal neurochemical modifications in the aging mouse brain measured in vivo by <sup>1</sup> H magnetic resonance spectroscopy. <i>Neurobiology of Aging</i> , 2014, 35, 1660-1668.	3.1	90
117	<sup>1</sup> H MRS glucose mapping and <sup>18</sup> F-PET joining forces: re-evaluation of the lumped constant in the rat brain under isoflurane anaesthesia. <i>Journal of Neurochemistry</i> , 2014, 129, 672-682.	3.9	9
118	Improving <sup>2</sup> D-weighted imaging at high field through the use of k <sub>T</sub> -points. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 1478-1488.	3.0	32
119	Multi-Modal Assessment of Long-Term Erythropoietin Treatment after Neonatal Hypoxic-Ischemic Injury in Rat Brain. <i>PLoS ONE</i> , 2014, 9, e95643.	2.5	38
120	Proton <sup>1</sup> relaxation times of metabolites in human occipital white and gray matter at 7 T. <i>Magnetic Resonance in Medicine</i> , 2013, 69, 931-936.	3.0	82
121	An <i>in vivo</i> ultrahigh field 14.1 T <sup>1</sup> H MRS study on 6-OHDA and $\alpha$ -synuclein-based rat models of Parkinson's disease: GABA as an early disease marker. <i>NMR in Biomedicine</i> , 2013, 26, 43-50.	2.8	37
122	In vivo enzymatic activity of acetylCoA synthetase in skeletal muscle revealed by <sup>13</sup> C turnover from hyperpolarized [1- <sup>13</sup> C]acetate to [1- <sup>13</sup> C]acetylcarnitine. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 4171-4178.	2.4	61
123	Glutamatergic and GABAergic energy metabolism measured in the rat brain by <sup>13</sup> C <sup>1</sup> H NMR spectroscopy at 14.1 T. <i>Journal of Neurochemistry</i> , 2013, 126, 579-590.	3.9	71
124	Single spin-echo T <sub>2</sub> relaxation times of cerebral metabolites at 14.1 T in the in vivo rat brain. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2013, 26, 549-554.	2.0	11
125	Digit somatotopy in the human cerebellum: A 7T fMRI study. <i>NeuroImage</i> , 2013, 67, 354-362.	4.2	44
126	Unedited <i>in vivo</i> detection and quantification of $\beta$ -aminobutyric acid in the occipital cortex using short-TE MRS at 3 T. <i>NMR in Biomedicine</i> , 2013, 26, 1353-1362.	2.8	75



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127	Investigation of field and diffusion time dependence of the diffusion-weighted signal at ultrahigh magnetic fields. NMR in Biomedicine, 2013, 26, 1251-1257.	2.8	18
128	Characterization of sustained BOLD activation in the rat barrel cortex and neurochemical consequences. NeuroImage, 2013, 74, 343-351.	4.2	33
129	Which prior knowledge? Quantification of in vivo brain <sup>13</sup> C MR spectra following <sup>13</sup> C glucose infusion using AMARES. Magnetic Resonance in Medicine, 2013, 69, 1512-1522.	3.0	12
130	3-D Residual Eddy Current Field Characterisation: Applied to Diffusion Weighted Magnetic Resonance Imaging. IEEE Transactions on Medical Imaging, 2013, 32, 1515-1525.	8.9	7
131	Brain Glucose Transport and Phosphorylation Under Acute Insulin-Induced Hypoglycemia in Mice: An <sup>18</sup> F-FDG PET Study. Journal of Nuclear Medicine, 2013, 54, 2153-2160.	5.0	11
132	Metabolic Flux and Compartmentation Analysis in the Brain In vivo. Frontiers in Endocrinology, 2013, 4, 156.	3.5	47
133	Net increase of lactate and glutamate concentration in activated human visual cortex detected with magnetic resonance spectroscopy at 7 tesla. Journal of Neuroscience Research, 2013, 91, 1076-1083.	2.9	118
134	Quantification of the neurochemical profile using simulated macromolecule resonances at 3 T. NMR in Biomedicine, 2013, 26, 593-599.	2.8	41
135	Feasibility of direct mapping of cerebral fluorodeoxyglucose metabolism in situ at subcellular resolution using soft X-ray fluorescence. Journal of Neuroscience Research, 2013, 91, 1050-1058.	2.9	16
136	Direct mapping of <sup>19</sup> F in <sup>19</sup> F-DG-6P in brain tissue at subcellular resolution using soft X-ray fluorescence. Journal of Physics: Conference Series, 2013, 463, 012003.	0.4	3
137	New Developments and Applications of the MP2RAGE Sequence - Focusing the Contrast and High Spatial Resolution R1 Mapping. PLoS ONE, 2013, 8, e69294.	2.5	135
138	The C57BL/6J Mouse Exhibits Sporadic Congenital Portosystemic Shunts. PLoS ONE, 2013, 8, e69782.	2.5	51
139	Hepatic glucose sensing is required to preserve $\beta^2$ cell glucose competence. Journal of Clinical Investigation, 2013, 123, 1662-1676.	8.2	118
140	Cerebral Glutamine Metabolism under Hyperammonemia Determined <i>in vivo</i> by Localized <sup>1</sup> H and <sup>15</sup> N NMR Spectroscopy. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 696-708.	4.3	40
141	A Two-Compartment Mathematical Model of Neuroglial Metabolism Using [1- <sup>11</sup> C] Acetate. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 548-559.	4.3	10
142	Handling Macromolecule Signals in the Quantification of the Neurochemical Profile. Journal of Alzheimer's Disease, 2012, 31, S101-S115.	2.6	78
143	Proton and Phosphorus Magnetic Resonance Spectroscopy of a Mouse Model of Alzheimer's Disease. Journal of Alzheimer's Disease, 2012, 31, S87-S99.	2.6	40
144	MP2RAGE Multiple Sclerosis Magnetic Resonance Imaging at 3 T. Investigative Radiology, 2012, 47, 346-352.	6.2	72

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145	The neurochemical profile quantified by in vivo $^1\text{H}$ NMR spectroscopy. <i>NeuroImage</i> , 2012, 61, 342-362.	4.2	199
146	Deletion of glutamate dehydrogenase 1 ( <i>GluD1</i> ) in the central nervous system affects glutamate handling without altering synaptic transmission. <i>Journal of Neurochemistry</i> , 2012, 123, 342-348.	3.9	52
147	<i>In Vivo</i> Detection of Brain Krebs Cycle Intermediate by Hyperpolarized Magnetic Resonance. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 2108-2113.	4.3	72
148	N-Acetylcysteine Normalizes Neurochemical Changes in the Glutathione-Deficient Schizophrenia Mouse Model During Development. <i>Biological Psychiatry</i> , 2012, 71, 1006-1014.	1.3	100
149	Prospective and retrospective motion correction in diffusion magnetic resonance imaging of the human brain. <i>NeuroImage</i> , 2012, 59, 389-398.	4.2	61
150	In vivo assessment of myelination by phase imaging at high magnetic field. <i>NeuroImage</i> , 2012, 59, 1979-1987.	4.2	80
151	SA2RAGE: A new sequence for fast $B_1$ mapping. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 1609-1619.	3.0	71
152	A comparison of in vivo $^{13}\text{C}$ MR brain glycogen quantification at 9.4 and 14.1 T. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 1523-1527.	3.0	9
153	Localized in vivo hyperpolarization transfer sequences. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 349-352.	3.0	27
154	In vivo Structural Imaging of the Cerebellum, the Contribution of Ultra-High Fields. <i>Cerebellum</i> , 2012, 11, 384-391.	2.5	15
155	Characterization of cerebral glucose dynamics <i>in vivo</i> with a four-state conformational model of transport at the blood-brain barrier. <i>Journal of Neurochemistry</i> , 2012, 121, 396-406.	3.9	35
156	Spread Spectrum Magnetic Resonance Imaging. <i>IEEE Transactions on Medical Imaging</i> , 2012, 31, 586-598.	8.9	86
157	High-resolution spatial mapping of changes in the neurochemical profile after focal ischemia in mice. <i>NMR in Biomedicine</i> , 2012, 25, 247-254.	2.8	21
158	<i>In vivo</i> metabolic profiling of glioma-initiating cells using proton magnetic resonance spectroscopy at 14.1 Tesla. <i>NMR in Biomedicine</i> , 2012, 25, 506-513.	2.8	17
159	Temporal SNR characteristics in segmented 3D-EPI at 7T. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 344-352.	3.0	64
160	Cerebral Glucose Transport and Homeostasis. <i>Advances in Neurobiology</i> , 2012, , 655-673.	1.8	4
161	Measurements of Glycogen Metabolism in the Living Brain. <i>Advances in Neurobiology</i> , 2012, , 699-706.	1.8	0
162	Where sound position influences sound object representations: A 7-T fMRI study. <i>NeuroImage</i> , 2011, 54, 1803-1811.	4.2	38

#	ARTICLE	IF	CITATIONS
163	Developmental and metabolic brain alterations in rats exposed to bisphenol A during gestation and lactation. International Journal of Developmental Neuroscience, 2011, 29, 37-43.	1.6	43
164	Compartmentalized Cerebral Metabolism of [1,6-13C]Glucose Determined by in vivo13C NMR Spectroscopy at 14.1 T. Frontiers in Neuroenergetics, 2011, 3, 3.	5.3	70
165	Chronic Delivery of Antibody Fragments Using Immunoisolated Cell Implants as a Passive Vaccination Tool. PLoS ONE, 2011, 6, e18268.	2.5	7
166	Increase of [18F]FLT Tumor Uptake In Vivo Mediated by FdUrd: Toward Improving Cell Proliferation Positron Emission Tomography. Molecular Imaging and Biology, 2011, 13, 321-331.	2.6	12
167	Longitudinal MR assessment of hypoxic ischemic injury in the immature rat brain. Magnetic Resonance in Medicine, 2011, 65, 305-312.	3.0	40
168	Diffusion tensor echo planar imaging using surface coil transceiver with a semiadiabatic RF pulse sequence at 14.1T. Magnetic Resonance in Medicine, 2011, 65, 732-737.	3.0	18
169	Head motion detection using FID navigators. Magnetic Resonance in Medicine, 2011, 66, 135-143.	3.0	58
170	Detection of neuronal activity and metabolism in a model of dehydration-induced anorexia in rats at 14.1T using manganese-enhanced MRI and <sup>1</sup> H MRS. NMR in Biomedicine, 2011, 24, 1326-1336.	2.8	15
171	Early Predictive Biomarkers for Lesion After Transient Cerebral Ischemia. Stroke, 2011, 42, 799-805.	2.0	40
172	Continuous arterial spin labeling of mouse cerebral blood flow using an actively-detuned two-coil system at 9.4T. , 2011, 2011, 6993-6.		4
173	High-Resolution Magnetic Resonance Imaging Quantitatively Detects Individual Pancreatic Islets. Diabetes, 2011, 60, 2853-2860.	0.6	38
174	Effect of Manganese Chloride on the Neurochemical Profile of the Rat Hypothalamus. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 2324-2333.	4.3	21
175	Echo-time independent signal modulations for strongly coupled systems in triple echo localization schemes: An extension of S-PRESS editing. Journal of Magnetic Resonance, 2010, 203, 108-112.	2.1	4
176	Eddy current effects on a clinical 7T-68cm bore scanner. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2010, 23, 39-43.	2.0	11
177	Quantification of brain glycogen concentration and turnover through localized <sup>13</sup> C NMR of both the C1 and C6 resonances. NMR in Biomedicine, 2010, 23, 270-276.	2.8	19
178	Neurochemical profile of the mouse hypothalamus using <i>in vivo</i> <sup>1</sup> H MRS at 14.1T. NMR in Biomedicine, 2010, 23, 578-583.	2.8	31
179	Direct <i>in vivo</i> measurement of glycine and the neurochemical profile in the rat medulla oblongata. NMR in Biomedicine, 2010, 23, 1097-1102.	2.8	18
180	Scavenging Free Radicals To Preserve Enhancement and Extend Relaxation Times in NMR using Dynamic Nuclear Polarization. Angewandte Chemie - International Edition, 2010, 49, 6182-6185.	13.8	89

#	ARTICLE	IF	CITATIONS
181	Deep thiopental anesthesia alters steady-state glucose homeostasis but not the neurochemical profile of rat cortex. <i>Journal of Neuroscience Research</i> , 2010, 88, 413-419.	2.9	24
182	$^1\text{H}$ $^{13}\text{C}$ NMR spectroscopy of the rat brain during infusion of $[\text{H}_2^{13}\text{C}]$ acetate at 14.1 T. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 334-340.	3.0	26
183	Diffusion-weighted spectroscopy: A novel approach to determine macromolecule resonances in short-echo time $^1\text{H}$ MRS. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 939-946.	3.0	36
184	BOLD responses to trigeminal nerve stimulation. <i>Magnetic Resonance Imaging</i> , 2010, 28, 1143-1151.	1.8	21
185	Neurochemical changes in the developing rat hippocampus during prolonged hypoglycemia. <i>Journal of Neurochemistry</i> , 2010, 114, 728-738.	3.9	40
186	Neurochemical profile of the developing mouse cortex determined by <i>in vivo</i> $^1\text{H}$ NMR spectroscopy at 14.1 T and the effect of recurrent anaesthesia. <i>Journal of Neurochemistry</i> , 2010, 115, 1466-1477.	3.9	51
187	Cerebellar Cortical Layers: In Vivo Visualization with Structural High-Field-Strength MR Imaging. <i>Radiology</i> , 2010, 254, 942-948.	7.3	66
188	MP2RAGE, a self bias-field corrected sequence for improved segmentation and T1-mapping at high field. <i>NeuroImage</i> , 2010, 49, 1271-1281.	4.2	1,075
189	Feasibility of <i>in vivo</i> $^{15}\text{N}$ MRS detection of hyperpolarized $^{15}\text{N}$ labeled choline in rats. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5818.	2.8	96
190	Steady-state brain glucose transport kinetics re-evaluated with a four-state conformational model. <i>Frontiers in Neuroenergetics</i> , 2009, 1, 6.	5.3	26
191	Quantification of <i>in vivo</i> short echo-time proton magnetic resonance spectra at 14.1 T using two different approaches of modelling the macromolecule spectrum. <i>Measurement Science and Technology</i> , 2009, 20, 104034.	2.6	35
192	Minimization of Nyquist ghosting for echo-planar imaging at ultra-high fields based on a negative readout gradient strategy. <i>Journal of Magnetic Resonance Imaging</i> , 2009, 30, 1171-1178.	3.4	31
193	Selective resonance suppression $^1\text{H}$ $^{13}\text{C}$ NMR spectroscopy with asymmetric adiabatic RF pulses. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 260-266.	3.0	4
194	Hyperpolarized lithium $^6\text{Li}$ as a sensor of nanomolar contrast agents. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 1489-1493.	3.0	53
195	MR spectroscopy of the human brain with enhanced signal intensity at ultrashort echo times on a clinical platform at 3T and 7T. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 1279-1285.	3.0	291
196	Comparison of $T_1$ relaxation times of the neurochemical profile in rat brain at 9.4 tesla and 14.1 tesla. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 862-867.	3.0	42
197	<i>In vivo</i> $^1\text{H}$ NMR spectroscopy of the human brain at high magnetic fields: Metabolite quantification at 4T vs. 7T. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 868-879.	3.0	316
198	<i>In vivo</i> measurement of glycine with short echo-time $^1\text{H}$ MRS in human brain at 7 T. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2009, 22, 1-4.	2.0	42

#	ARTICLE	IF	CITATIONS
199	Evolution of the Neurochemical Profile after Transient Focal Cerebral Ischemia in the Mouse Brain. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 811-819.	4.3	86
200	Neuroprotective Role of Lactate after Cerebral Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 1780-1789.	4.3	197
201	The rate-limiting step for glucose transport into the hypothalamus is across the blood-hypothalamus interface. Journal of Neurochemistry, 2009, 109, 38-45.	3.9	20
202	Caffeine consumption attenuates neurochemical modifications in the hippocampus of streptozotocin-induced diabetic rats. Journal of Neurochemistry, 2009, 111, 368-379.	3.9	133
203	Investigation of high-resolution functional magnetic resonance imaging by means of surface and array radiofrequency coils at 7 T. Magnetic Resonance Imaging, 2009, 27, 1011-1018.	1.8	26
204	Alteration of brain glycogen turnover in the conscious rat after 5h of prolonged wakefulness. Neurochemistry International, 2009, 55, 45-51.	3.8	27
205	Proton NMR of <sup>15</sup> N-Choline Metabolites Enhanced by Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2009, 131, 16014-16015.	13.7	107
206	On the origin of the MR image phase contrast: An in vivo MR microscopy study of the rat brain at 14.1T. NeuroImage, 2009, 46, 345-352.	4.2	109
207	Principles of Operation of a DNP Prepolarizer Coupled to a Rodent MRI Scanner. Applied Magnetic Resonance, 2008, 34, 313-319.	1.2	40
208	Comparison of three commercially available radio frequency coils for human brain imaging at 3 Tesla. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2008, 21, 53-61.	2.0	13
209	Quantitative proton spectroscopic imaging of the neurochemical profile in rat brain with microliter resolution at ultra-short echo times. Magnetic Resonance in Medicine, 2008, 59, 52-58.	3.0	67
210	Editing through multiple bonds: Threonine detection. Magnetic Resonance in Medicine, 2008, 59, 245-251.	3.0	11
211	In vivo <sup>1</sup> H NMR measurement of glycine in rat brain at 9.4 T at short echo time. Magnetic Resonance in Medicine, 2008, 60, 727-731.	3.0	16
212	Proton T <sub>2</sub> relaxation time of J-coupled cerebral metabolites in rat brain at 9.4T. NMR in Biomedicine, 2008, 21, 396-401.	2.8	69
213	<sup>1</sup> H NMR spectroscopy of rat brain in vivo at 14.1Tesla: Improvements in quantification of the neurochemical profile. Journal of Magnetic Resonance, 2008, 194, 163-168.	2.1	105
214	Snapshot gradient-recalled echo-planar images of rat brains at long echo time at 9.4 T. Magnetic Resonance Imaging, 2008, 26, 954-960.	1.8	5
215	Non-invasive quantification of brain glycogen absolute concentration. Journal of Neurochemistry, 2008, 107, 1414-1423.	3.9	24
216	Comparison of two approaches to model the macromolecule spectrum for the quantification of short TE <sup>1</sup> H MRS spectra. , 2008, , .		3

#	ARTICLE	IF	CITATIONS
217	Human brain glycogen content and metabolism: implications on its role in brain energy metabolism. American Journal of Physiology - Endocrinology and Metabolism, 2007, 292, E946-E951.	3.5	114
218	Design and performance of a DNP prepolarizer coupled to a rodent MRI scanner. Concepts in Magnetic Resonance Part B, 2007, 31B, 255-269.	0.7	172
219	Direct validation of in vivo localized $^{13}\text{C}$ MRS measurements of brain glycogen. Magnetic Resonance in Medicine, 2007, 57, 243-248.	3.0	17
220	Dynamics of lactate concentration and blood oxygen level-dependent effect in the human visual cortex during repeated identical stimuli. Journal of Neuroscience Research, 2007, 85, 3340-6.	2.9	58
221	Mathematical modeling of $^{13}\text{C}$ label incorporation of the TCA cycle: The concept of composite precursor function. Journal of Neuroscience Research, 2007, 85, 3304-3317.	2.9	19
222	Perinatal Iron Deficiency Predisposes the Developing Rat Hippocampus to Greater Injury from Mild to Moderate Hypoxia-Ischemia. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 729-740.	4.3	39
223	Sustained Neuronal Activation Raises Oxidative Metabolism to a New Steady-State Level: Evidence from $^1\text{H}$ NMR Spectroscopy in the Human Visual Cortex. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1055-1063.	4.3	253
224	Neurochemical changes in Huntington R6/2 mouse striatum detected by $^1\text{H}$ in vivo $^1\text{H}$ NMR spectroscopy. Journal of Neurochemistry, 2007, 100, 1397-1406.	3.9	104
225	Brain energy metabolism and neurotransmission at near-freezing temperatures: in vivo $^1\text{H}$ MRS study of a hibernating mammal. Journal of Neurochemistry, 2007, 101, 1505-1515.	3.9	49
226	Relaxivity of Gd-based contrast agents on X nuclei with long intrinsic relaxation times in aqueous solutions. Magnetic Resonance Imaging, 2007, 25, 821-825.	1.8	15
227	Biochemical quantification of total brain glycogen concentration in rats under different glycemic states. Neurochemistry International, 2006, 48, 616-622.	3.8	46
228	Effect of chronic hypoglycaemia on glucose concentration and glycogen content in rat brain: a localized $^{13}\text{C}$ NMR study. Journal of Neurochemistry, 2006, 99, 260-268.	3.9	37
229	Sensitivity of single-voxel $^1\text{H}$ -MRS in investigating the metabolism of the activated human visual cortex at 7 T. Magnetic Resonance Imaging, 2006, 24, 343-348.	1.8	115
230	In vivo $^{13}\text{C}$ NMR spectroscopy and metabolic modeling in the brain: a practical perspective. Magnetic Resonance Imaging, 2006, 24, 527-539.	1.8	98
231	Proton MRS of the unilateral substantia nigra in the human brain at 4 tesla: Detection of high GABA concentrations. Magnetic Resonance in Medicine, 2006, 55, 296-301.	3.0	100
232	Proton-observed carbon-edited NMR spectroscopy in strongly coupled second-order spin systems. Magnetic Resonance in Medicine, 2006, 55, 250-257.	3.0	58
233	Quantification of vitamin C in the rat brain in vivo using short echo-time $^1\text{H}$ MRS. Magnetic Resonance in Medicine, 2006, 55, 979-983.	3.0	30
234	Localized short-echo-time proton MR spectroscopy with full signal-intensity acquisition. Magnetic Resonance in Medicine, 2006, 56, 965-970.	3.0	260

#	ARTICLE	IF	CITATIONS
235	Detection of an antioxidant profile in the human brain in vivo via double editing with MEGA-PRESS. Magnetic Resonance in Medicine, 2006, 56, 1192-1199.	3.0	76
236	High Magnetic Fields for Imaging Cerebral Morphology, Function, and Biochemistry. Biological Magnetic Resonance, 2006, , 285-342.	0.4	8
237	In-Vivo NMR Spectroscopy of the Brain at High Fields. , 2006, , 373-409.		1
238	In vivo effect of chronic hypoxia on the neurochemical profile of the developing rat hippocampus. Developmental Brain Research, 2005, 156, 202-209.	1.7	64
239	Brain glucose concentrations in patients with type 1 diabetes and hypoglycemia unawareness. Journal of Neuroscience Research, 2005, 79, 42-47.	2.9	88
240	Evaluation of brain mitochondrial glutamate and ?-ketoglutarate transport under physiologic conditions. Journal of Neuroscience Research, 2005, 79, 106-113.	2.9	28
241	Brain glucose concentrations in healthy humans subjected to recurrent hypoglycemia. Journal of Neuroscience Research, 2005, 82, 525-530.	2.9	34
242	Uncovering hidden in vivo resonances using editing based on localized TOCSY. Magnetic Resonance in Medicine, 2005, 53, 783-789.	3.0	14
243	In vivo <sup>1</sup> H NMR spectroscopy and neurochemistry. Quantification matters. Magnetic Resonance in Medicine, 2005, 54, 1048-1049.	3.0	1
244	Validation of glutathione quantitation from STEAM spectra against edited <sup>1</sup> H NMR spectroscopy at 4T: application to schizophrenia. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2005, 18, 276-282.	2.0	92
245	Methodology of <sup>1</sup> H NMR spectroscopy of the human brain at very high magnetic fields. Applied Magnetic Resonance, 2005, 29, 139-157.	1.2	164
246	A localization method for the measurement of fast relaxing <sup>13</sup> C NMR signals in humans at high magnetic fields. Applied Magnetic Resonance, 2005, 29, 159-169.	1.2	11
247	Brain glucose concentrations in poorly controlled diabetes mellitus as measured by high-field magnetic resonance spectroscopy. Metabolism: Clinical and Experimental, 2005, 54, 1008-1013.	3.4	44
248	Neuroglial Metabolism in the Awake Rat Brain: CO <sub>2</sub> Fixation Increases with Brain Activity. Journal of Neuroscience, 2004, 24, 11273-11279.	3.6	204
249	Whole-brain glutamate metabolism evaluated by steady-state kinetics using a double-isotope procedure: effects of gabapentin. Journal of Neurochemistry, 2004, 90, 1104-1116.	3.9	37
250	Dynamic or inert metabolism? Turnover of N-acetyl aspartate and glutathione from d-[1- <sup>13</sup> C]glucose in the rat brain in vivo. Journal of Neurochemistry, 2004, 91, 778-787.	3.9	46
251	Temperature and SAR calculations for a human head within volume and surface coils at 64 and 300 MHz. Journal of Magnetic Resonance Imaging, 2004, 19, 650-656.	3.4	248
252	<sup>1</sup> H NMR detection of vitamin C in human brain in vivo. Magnetic Resonance in Medicine, 2004, 51, 225-229.	3.0	57



#	ARTICLE	IF	CITATIONS
253	Highly resolved in vivo <sup>1</sup> H NMR spectroscopy of the mouse brain at 9.4 T. Magnetic Resonance in Medicine, 2004, 52, 478-484.	3.0	171
254	Ultrahigh field magnetic resonance imaging and spectroscopy. Magnetic Resonance Imaging, 2003, 21, 1263-1281.	1.8	218
255	Effect of hypoglycemia on brain glycogen metabolism in vivo. Journal of Neuroscience Research, 2003, 72, 25-32.	2.9	186
256	Glycogen: The forgotten cerebral energy store. Journal of Neuroscience Research, 2003, 74, 179-183.	2.9	178
257	Developmental and regional changes in the neurochemical profile of the rat brain determined by in vivo <sup>1</sup> H NMR spectroscopy. Magnetic Resonance in Medicine, 2003, 50, 24-32.	3.0	212
258	Measurement of reduced glutathione (GSH) in human brain using LCModel analysis of difference-edited spectra. Magnetic Resonance in Medicine, 2003, 50, 19-23.	3.0	162
259	<sup>1</sup> H-localized broadband <sup>13</sup> C NMR spectroscopy of the rat brain in vivo at 9.4 T. Magnetic Resonance in Medicine, 2003, 50, 684-692.	3.0	70
260	Toward dynamic isotopomer analysis in the rat brain in vivo: automatic quantitation of <sup>13</sup> C NMR spectra using LCModel. NMR in Biomedicine, 2003, 16, 400-412.	2.8	71
261	Localized in vivo <sup>13</sup> C NMR spectroscopy of the brain. NMR in Biomedicine, 2003, 16, 313-338.	2.8	150
262	In vivo <sup>13</sup> C NMR assessment of brain glycogen concentration and turnover in the awake rat. Neurochemistry International, 2003, 43, 317-322.	3.8	82
263	Direct, noninvasive measurement of brain glycogen metabolism in humans. Neurochemistry International, 2003, 43, 323-329.	3.8	86
264	Principles of the measurement of neuro-glial metabolism using in vivo <sup>13</sup> C NMR spectroscopy. Advances in Molecular and Cell Biology, 2003, , 409-433.	0.1	8
265	Perinatal Iron Deficiency Alters the Neurochemical Profile of the Developing Rat Hippocampus. Journal of Nutrition, 2003, 133, 3215-3221.	2.9	205
266	In vivo <sup>13</sup> C NMR studies of compartmentalized cerebral carbohydrate metabolism. Neurochemistry International, 2002, 41, 143-154.	3.8	113
267	Direct in vivo measurement of human cerebral GABA concentration using MEGA-editing at 7 Tesla. Magnetic Resonance in Medicine, 2002, 47, 1009-1012.	3.0	128
268	Elucidation of the role of fructose 2,6-bisphosphate in the regulation of glucose fluxes in mice using in vivo <sup>13</sup> C NMR measurements of hepatic carbohydrate metabolism. FEBS Journal, 2002, 269, 4418-4426.	0.2	23
269	Effect of Deep Pentobarbital Anesthesia on Neurotransmitter Metabolism <i>in Vivo</i> : On the Correlation of Total Glucose Consumption with Glutamatergic Action. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 1343-1351.	4.3	122
270	Effect of Deep Pentobarbital Anesthesia on Neurotransmitter Metabolism In Vivo: On the Correlation of Total Glucose Consumption With Glutamatergic Action. Journal of Cerebral Blood Flow and Metabolism, 2002, , 1343-1351.	4.3	37

#	ARTICLE	IF	CITATIONS
271	Elucidation of the role of fructose 2,6-bisphosphate in the regulation of glucose fluxes in mice using in vivo (13)C NMR measurements of hepatic carbohydrate metabolism. FEBS Journal, 2002, 269, 4418-26.	0.2	4
272	A mathematical model of compartmentalized neurotransmitter metabolism in the human brain. American Journal of Physiology - Endocrinology and Metabolism, 2001, 281, E100-E112.	3.5	290
273	Noninvasive Measurements of [1-13C] Glycogen Concentrations and Metabolism in Rat Brain In Vivo. Journal of Neurochemistry, 2001, 73, 1300-1308.	3.9	92
274	Metabolic changes in quinolinic acid-lesioned rat striatum detected non-invasively by in vivo 1H NMR spectroscopy. Journal of Neuroscience Research, 2001, 66, 891-898.	2.9	52
275	In vivo 1H NMR spectroscopy of the human brain at 7 T. Magnetic Resonance in Medicine, 2001, 46, 451-456.	3.0	353
276	Study of tricarboxylic acid cycle flux changes in human visual cortex during hemifield visual stimulation using 1H-{13C} MRS and fMRI. Magnetic Resonance in Medicine, 2001, 45, 349-355.	3.0	112
277	In Vivo Measurements of Brain Glucose Transport Using the Reversible Michaelis-Menten Model and Simultaneous Measurements of Cerebral Blood Flow Changes during Hypoglycemia. Journal of Cerebral Blood Flow and Metabolism, 2001, 21, 653-663.	4.3	140
278	The Effect of Insulin on In Vivo Cerebral Glucose Concentrations and Rates of Glucose Transport/Metabolism in Humans. Diabetes, 2001, 50, 2203-2209.	0.6	161
279	Field mapping without reference scan using asymmetric echo-planar techniques. Magnetic Resonance in Medicine, 2000, 43, 319-323.	3.0	521
280	Effect of acute hyperglycemia on visual cortical activation as measured by functional MRI. Journal of Neuroscience Research, 2000, 62, 279-285.	2.9	19
281	Single-shot, three-dimensional non-echo localization method for in vivo NMR spectroscopy. Magnetic Resonance in Medicine, 2000, 44, 387-394.	3.0	66
282	Extracellular-Intracellular Distribution of Glucose and Lactate in the Rat Brain Assessed Noninvasively by Diffusion-Weighted 1H Nuclear Magnetic Resonance Spectroscopy In Vivo. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 736-746.	4.3	139
283	Magnetic Resonance Studies of Brain Function and Neurochemistry. Annual Review of Biomedical Engineering, 2000, 2, 633-660.	12.3	84
284	Field mapping without reference scan using asymmetric echo-planar techniques. Magnetic Resonance in Medicine, 2000, 43, 319.	3.0	2
285	Water diffusion in rat brain in vivo as detected at very large b values is multicompartmental. Magnetic Resonance Materials in Physics, Biology, and Medicine, 1999, 8, 98-108.	2.0	54
286	Toward an in Vivo Neurochemical Profile: Quantification of 18 Metabolites in Short-Echo-Time 1H NMR Spectra of the Rat Brain. Journal of Magnetic Resonance, 1999, 141, 104-120.	2.1	457
287	In vivo 1H NMR spectroscopy of rat brain at 1 ms echo time. Magnetic Resonance in Medicine, 1999, 41, 649-656.	3.0	870
288	In vivo observation of lactate methyl proton magnetization transfer in rat C6 glioma. Magnetic Resonance in Medicine, 1999, 41, 676-685.	3.0	24

#	ARTICLE	IF	CITATIONS
289	Localized in vivo $^1\text{H}$ NMR detection of neurotransmitter labeling in rat brain during infusion of $[1\text{-}^{13}\text{C}]$ D-glucose. Magnetic Resonance in Medicine, 1999, 41, 1077-1083.	3.0	105
290	Localized Eddy Current Compensation Using Quantitative Field Mapping. Journal of Magnetic Resonance, 1998, 131, 139-143.	2.1	58
291	Resolution Improvements in $\text{in Vivo } ^1\text{H}$ NMR Spectra with Increased Magnetic Field Strength. Journal of Magnetic Resonance, 1998, 135, 260-264.	2.1	176
292	Identification of a high concentration of scyllo-inositol in the brain of a healthy human subject using $^1\text{H}$ - and $^{13}\text{C}$ -NMR. Magnetic Resonance in Medicine, 1998, 39, 313-316.	3.0	42
293	Detecting natural abundance carbon signal of NAA metabolite within $12\text{-cm}^3$ localized volume of human brain using $^1\text{H}$ - $\{^{13}\text{C}\}$ NMR spectroscopy. Magnetic Resonance in Medicine, 1998, 40, 180-184.	3.0	36
294	Brain lactate by magnetic resonance spectroscopy during fulminant hepatic failure in the dog. Liver Transplantation, 1998, 4, 158-165.	1.8	40
295	Localized in vivo $^{13}\text{C}$ -NMR of Glutamate Metabolism in the Human Brain: Initial Results at 4 Tesla. Developmental Neuroscience, 1998, 20, 380-388.	2.0	188
296	Steady-State Cerebral Glucose Concentrations and Transport in the Human Brain. Journal of Neurochemistry, 1998, 70, 397-408.	3.9	215
297	In vivo magnetic resonance spectroscopy of human brain: The biophysical basis of dementia. Biophysical Chemistry, 1997, 68, 161-172.	2.8	80
298	A Half-Volume Coil for Efficient Proton Decoupling in Humans at 4 Tesla. Journal of Magnetic Resonance, 1997, 125, 178-184.	2.1	162
299	Observation of resolved glucose signals in $^1\text{H}$ NMR spectra of the human brain at 4 Tesla. Magnetic Resonance in Medicine, 1996, 36, 1-6.	3.0	87
300	Broadband decoupled, $^1\text{H}$ -localized $^{13}\text{C}$ MRS of the human brain at 4 tesla. Magnetic Resonance in Medicine, 1996, 36, 659-664.	3.0	75
301	$^1\text{H}$ NMR Studies of Glucose Transport in the Human Brain. Journal of Cerebral Blood Flow and Metabolism, 1996, 16, 427-438.	4.3	89
302	Synchronization device for electrocardiography-gated echo-planar imaging.. Radiology, 1995, 197, 311-313.	7.3	20
303	Simultaneous Determination of the Rates of the TCA Cycle, Glucose Utilization, $\text{I}^{\pm}$ -Ketoglutarate/Glutamate Exchange, and Glutamine Synthesis in Human Brain by NMR. Journal of Cerebral Blood Flow and Metabolism, 1995, 15, 12-25.	4.3	307
304	Validation of $^{13}\text{C}$ NMR measurements of liver glycogen in vivo. Magnetic Resonance in Medicine, 1994, 31, 583-588.	3.0	68
305	Localized $^{13}\text{C}$ NMR Spectroscopy in the Human Brain of Amino Acid Labeling from $\text{d}[\text{1-}^{13}\text{C}]\text{Glucose}$ . Journal of Neurochemistry, 1994, 63, 1377-1385.	3.9	229
306	Determination of saturation factors in $^{31}\text{P}$ NMR spectra of the developing human brain. Magnetic Resonance in Medicine, 1993, 29, 7-11.	3.0	15

#	ARTICLE	IF	CITATIONS
307	Automatic, localized in Vivo adjustment of all first-and second-order shim coils. Magnetic Resonance in Medicine, 1993, 29, 804-811.	3.0	826
308	Echo-planar magnetic resonance imaging studies of frontal cortex activation during word generation in humans.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 4952-4956.	7.1	424
309	Non-Invasive Measurements of the Cerebral Steady-State Glucose Concentration and Transport in Humans by <sup>13</sup> C Nuclear Magnetic Resonance. Advances in Experimental Medicine and Biology, 1993, 331, 35-40.	1.6	15
310	Direct measurement of brain glucose concentrations in humans by <sup>13</sup> C NMR spectroscopy.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 1109-1112.	7.1	212
311	Localized <sup>13</sup> C NMR spectroscopy of myo-inositol in the human brain in vivo. Magnetic Resonance in Medicine, 1992, 25, 204-210.	3.0	48
312	Detection and assignment of the glucose signal in 1h nmr difference spectra of the human brain. Magnetic Resonance in Medicine, 1992, 27, 183-188.	3.0	53
313	Temporal and spatial analysis of fields generated by eddy currents in superconducting magnets: Optimization of corrections and quantitative characterization of magnet/gradient systems. Magnetic Resonance in Medicine, 1991, 20, 268-284.	3.0	109
314	<sup>13</sup> C NMR visibility of rabbit muscle glycogen in vivo. Magnetic Resonance in Medicine, 1991, 20, 327-332.	3.0	53
315	Non-invasive <sup>31</sup> P magnetic resonance spectroscopy revealed McArdle disease in an asymptomatic child. European Journal of Pediatrics, 1990, 149, 483-486.	2.7	10
316	A simple design for a double-tunable probe head for imaging and spectroscopy at high fields. Magnetic Resonance in Medicine, 1990, 15, 128-134.	3.0	11
317	A method for rapid evaluation of saturation factors in in vivo surface coil NMR spectroscopy using B1-insensitive pulse cycles. NMR in Biomedicine, 1990, 3, 265-271.	2.8	15
318	Variations in the in vivo P-31 MR spectra of the developing human brain during postnatal life. Work in progress.. Radiology, 1989, 172, 197-199.	7.3	53
319	Sequential NMR assignments of labile protons in DNA using two-dimensional nuclear-Overhauser-enhancement spectroscopy with three jump-and-return pulse sequences. FEBS Journal, 1987, 166, 215-220.	0.2	27