

# Rolf Gruetter

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/8076708/rolf-gruetter-publications-by-year.pdf>

**Version:** 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

322 papers	18,880 citations	73 h-index	125 g-index
331 ext. papers	21,165 ext. citations	5.2 avg, IF	6.81 L-index

#	Paper	IF	Citations
322	[C]bicarbonate labelled from hyperpolarized [1-C]pyruvate is an in vivo marker of hepatic gluconeogenesis in fasted state.. <i>Communications Biology</i> , <b>2022</b> , 5, 10	6.7	1
321	Late post-natal neurometabolic development in healthy male rats using H and P magnetic resonance spectroscopy. <i>Journal of Neurochemistry</i> , <b>2021</b> , 157, 508-519	6	1
320	PIRACY: An Optimized Pipeline for Functional Connectivity Analysis in the Rat Brain. <i>Frontiers in Neuroscience</i> , <b>2021</b> , 15, 602170	5.1	1
319	Hyperpolarized C-glucose magnetic resonance highlights reduced aerobic glycolysis in vivo in infiltrative glioblastoma. <i>Scientific Reports</i> , <b>2021</b> , 11, 5771	4.9	4
318	The relationship between EEG and fMRI connectomes is reproducible across simultaneous EEG-fMRI studies from 1.5T to 7T. <i>NeuroImage</i> , <b>2021</b> , 231, 117864	7.9	7
317	Measuring Glycolytic Activity with Hyperpolarized [H, U-C] D-Glucose in the Naive Mouse Brain under Different Anesthetic Conditions. <i>Metabolites</i> , <b>2021</b> , 11,	5.6	2
316	Dipole-Fed Rectangular Dielectric Resonator Antennas for Magnetic Resonance Imaging at 7T: The Impact of Quasi-Transverse Electric Modes on Transmit Field Distribution. <i>Frontiers in Physics</i> , <b>2021</b> , 9,	3.9	2
315	Radical-free hyperpolarized MRI using endogenously occurring pyruvate analogues and UV-induced nonpersistent radicals. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e4584	4.4	1
314	Excitatory/inhibitory neuronal metabolic balance in mouse hippocampus upon infusion of [U-C]glucose. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2021</b> , 41, 282-297	7.3	2
313	B shimming for in vivo magnetic resonance spectroscopy: ExpertsConsensus recommendations. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e4350	4.4	20
312	Contribution of macromolecules to brain H MR spectra: ExpertsConsensus recommendations. <i>NMR in Biomedicine</i> , <b>2021</b> , 34, e4393	4.4	39
311	Evaluation of the whole auditory pathway using high-resolution and functional MRI at 7T parallel-transmit. <i>PLoS ONE</i> , <b>2021</b> , 16, e0254378	3.7	0
310	Brain NAD Is Associated With ATP Energy Production and Membrane Phospholipid Turnover in Humans. <i>Frontiers in Aging Neuroscience</i> , <b>2020</b> , 12, 609517	5.3	9
309	Metabolic signature in nucleus accumbens for anti-depressant-like effects of acetyl-L-carnitine. <i>ELife</i> , <b>2020</b> , 9,	8.9	32
308	Combined deletion of Glut1 and Glut3 impairs lung adenocarcinoma growth. <i>ELife</i> , <b>2020</b> , 9,	8.9	9
307	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. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 6873-6879	6.4	5
306	Glutamine-to-glutamate ratio in the nucleus accumbens predicts effort-based motivated performance in humans. <i>Neuropsychopharmacology</i> , <b>2020</b> , 45, 2048-2057	8.7	4

305	Mitochondrial gene signature in the prefrontal cortex for differential susceptibility to chronic stress. <i>Scientific Reports</i> , <b>2020</b> , 10, 18308	4.9	12
304	Impact of aerobic exercise type on blood flow, muscle energy metabolism, and mitochondrial biogenesis in experimental lower extremity artery disease. <i>Scientific Reports</i> , <b>2020</b> , 10, 14048	4.9	3
303	Metabolite concentration changes associated with positive and negative BOLD responses in the human visual cortex: A functional MRS study at 7 Tesla. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2020</b> , 40, 488-500	7.3	18
302	Metabolic and perfusion responses to acute hypoglycemia in the rat cortex: A non-invasive magnetic resonance approach. <i>Journal of Neurochemistry</i> , <b>2020</b> , 154, 71-83	6	0
301	Magnetic resonance spectroscopy in the rodent brain: ExpertsQconsensus recommendations. <i>NMR in Biomedicine</i> , <b>2020</b> , 34, e4325	4.4	5
300	Multi-slice passband bSSFP for human and rodent fMRI at ultra-high field. <i>Journal of Magnetic Resonance</i> , <b>2019</b> , 305, 31-40	3	5
299	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> , <b>2019</b> , 82, 1229-1241	4.4	16
298	Capturing the spatiotemporal dynamics of self-generated, task-initiated thoughts with EEG and fMRI. <i>NeuroImage</i> , <b>2019</b> , 194, 82-92	7.9	72
297	Methodological consensus on clinical proton MRS of the brain: Review and recommendations. <i>Magnetic Resonance in Medicine</i> , <b>2019</b> , 82, 527-550	4.4	134
296	Investigating the variability of cardiac pulse artifacts across heartbeats in simultaneous EEG-fMRI recordings: A 7T study. <i>NeuroImage</i> , <b>2019</b> , 191, 21-35	7.9	11
295	N-Acetyl-Cysteine Supplementation Improves Functional Connectivity Within the Cingulate Cortex in Early Psychosis: A Pilot Study. <i>International Journal of Neuropsychopharmacology</i> , <b>2019</b> , 22, 478-487	5.8	18
294	Improved off-resonance phase behavior using a phase-inverted adiabatic half-passage pulse for C MRS in humans at 7 T. <i>NMR in Biomedicine</i> , <b>2019</b> , 32, e4171	4.4	
293	A human cerebral and cerebellar 8-channel transceive RF dipole coil array at 7T. <i>Magnetic Resonance in Medicine</i> , <b>2019</b> , 81, 1447-1458	4.4	21
292	Nucleus accumbens neurochemistry in human anxiety: A 7 T H-MRS study. <i>European Neuropsychopharmacology</i> , <b>2019</b> , 29, 365-375	1.2	17
291	High-fat diet consumption alters energy metabolism in the mouse hypothalamus. <i>International Journal of Obesity</i> , <b>2019</b> , 43, 1295-1304	5.5	22
290	Alterations of Brain Energy Metabolism in Type 2 Diabetic Goto-Kakizaki Rats Measured In Vivo by C Magnetic Resonance Spectroscopy. <i>Neurotoxicity Research</i> , <b>2019</b> , 36, 268-278	4.3	18
289	Glucose transporter 2 mediates the hypoglycemia-induced increase in cerebral blood flow. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2019</b> , 39, 1725-1736	7.3	2
288	Evolution of the neurochemical profiles in the G93A-SOD1 mouse model of amyotrophic lateral sclerosis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2019</b> , 39, 1283-1298	7.3	14

- 287 Probing cardiac metabolism by hyperpolarized  $^{13}\text{C}$  MR using an exclusively endogenous substrate mixture and photo-induced nonpersistent radicals. *Magnetic Resonance in Medicine*, **2018**, 79, 2451-2459<sup>4.4</sup> 14
- 286 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 5.9 14
- 285 Feasibility of in vivo measurement of glucose metabolism in the mouse hypothalamus by H-[C] MRS at 14.1T. *Magnetic Resonance in Medicine*, **2018**, 80, 874-884 4.4 8
- 284 In Vivo Heteronuclear Magnetic Resonance Spectroscopy. *Methods in Molecular Biology*, **2018**, 1718, 169-187<sup>1.7</sup> 7
- 283 In vivo characterization of brain metabolism by H MRS, C MRS and FDG PET reveals significant glucose oxidation of invasively growing glioma cells. *International Journal of Cancer*, **2018**, 143, 127-138<sup>7.5</sup> 12
- 282 F44. AN ADD-ON TRIAL WITH N-ACETYL-CYSTEINE (NAC) IN EARLY PSYCHOSIS PATIENTS: TOWARDS BIOMARKER GUIDED TREATMENT. *Schizophrenia Bulletin*, **2018**, 44, S236-S236 1.3 78
- 281 In Vivo C MRS in the mouse brain at 14.1 Tesla and metabolic flux quantification under infusion of [1,6-C]glucose. *Journal of Cerebral Blood Flow and Metabolism*, **2018**, 38, 1701-1714 7.3 12
- 280 N-acetylcysteine in a Double-Blind Randomized Placebo-Controlled Trial: Toward Biomarker-Guided Treatment in Early Psychosis. *Schizophrenia Bulletin*, **2018**, 44, 317-327 1.3 83
- 279 Cannabis use in early psychosis is associated with reduced glutamate levels in the prefrontal cortex. *Psychopharmacology*, **2018**, 235, 13-22 4.7 22
- 278 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 2.8 8
- 277 Nutritional Ketosis Increases NAD/NADH Ratio in Healthy Human Brain: An Study by P-MRS. *Frontiers in Nutrition*, **2018**, 5, 62 6.2 33
- 276 Clinical Neuroimaging Using 7 T MRI: Challenges and Prospects. *Journal of Neuroimaging*, **2018**, 28, 5-13<sup>2.8</sup> 19
- 275 Impact of Caffeine Consumption on Type 2 Diabetes-Induced Spatial Memory Impairment and Neurochemical Alterations in the Hippocampus. *Frontiers in Neuroscience*, **2018**, 12, 1015 5.1 18
- 274 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 9 35
- 273 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 8.6 31
- 272 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 1.3 1
- 271 Technical and experimental features of Magnetic Resonance Spectroscopy of brain glycogen metabolism. *Analytical Biochemistry*, **2017**, 529, 117-126 3.1 5
- 270 Glycogen Supercompensation in the Rat Brain After Acute Hypoglycemia is Independent of Glucose Levels During Recovery. *Neurochemical Research*, **2017**, 42, 1629-1635 4.6 16

269	Progress towards in vivo brain C-MRS in mice: Metabolic flux analysis in small tissue volumes. <i>Analytical Biochemistry</i> , <b>2017</b> , 529, 229-244	3.1	9
268	Energy metabolism in the rat cortex under thiopental anaesthesia measured In Vivo by C MRS. <i>Journal of Neuroscience Research</i> , <b>2017</b> , 95, 2297-2306	4.4	13
267	Studying cyto and myeloarchitecture of the human cortex at ultra-high field with quantitative imaging: R, R and magnetic susceptibility. <i>NeuroImage</i> , <b>2017</b> , 147, 152-163	7.9	58
266	Measuring glucose cerebral metabolism in the healthy mouse using hyperpolarized C magnetic resonance. <i>Scientific Reports</i> , <b>2017</b> , 7, 11719	4.9	36
265	Social isolation stress and chronic glutathione deficiency have a common effect on the glutamine-to-glutamate ratio and myo-inositol concentration in the mouse frontal cortex. <i>Journal of Neurochemistry</i> , <b>2017</b> , 142, 767-775	6	11
264	Hierarchical Status Predicts Behavioral Vulnerability and Nucleus Accumbens Metabolic Profile Following Chronic Social Defeat Stress. <i>Current Biology</i> , <b>2017</b> , 27, 2202-2210.e4	6.3	104
263	Influence of physiological noise on accelerated 2D and 3D resting state functional MRI data at 7 T. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 78, 888-896	4.4	18
262	Sexual dimorphism in hepatic lipids is associated with the evolution of metabolic status in mice. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3761	4.4	5
261	Diffusion-weighted MRS of acetate in the rat brain. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3768	4.4	4
260	Prospective head motion correction using FID-guided on-demand image navigators. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 78, 193-203	4.4	6
259	How Energy Metabolism Supports Cerebral Function: Insights from C Magnetic Resonance Studies. <i>Frontiers in Neuroscience</i> , <b>2017</b> , 11, 288	5.1	37
258	Quantitative activity-induced manganese-dependent MRI for characterizing cortical layers in the primary somatosensory cortex of the rat. <i>Brain Structure and Function</i> , <b>2016</b> , 221, 695-707	4	2
257	Early detection of human glioma sphere xenografts in mouse brain using diffusion MRI at 14.1 T. <i>NMR in Biomedicine</i> , <b>2016</b> , 29, 1577-1589	4.4	7
256	Simultaneous and interleaved acquisition of NMR signals from different nuclei with a clinical MRI scanner. <i>Magnetic Resonance in Medicine</i> , <b>2016</b> , 76, spcone-spcone	4.4	1
255	Three-dimensional echo planar imaging with controlled aliasing: A sequence for high temporal resolution functional MRI. <i>Magnetic Resonance in Medicine</i> , <b>2016</b> , 75, 2350-61	4.4	37
254	3D T2-weighted imaging at 7T using dynamic kT-points on single-transmit MRI systems. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2016</b> , 29, 347-58	2.8	9
253	Refined Analysis of Brain Energy Metabolism Using In Vivo Dynamic Enrichment of <sup>13</sup> C Multiplets. <i>ASN Neuro</i> , <b>2016</b> , 8,	5.3	13
252	Compartmentalised energy metabolism supporting glutamatergic neurotransmission in response to increased activity in the rat cerebral cortex: A <sup>13</sup> C MRS study in vivo at 14.1 T. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2016</b> , 36, 928-40	7.3	37

251	Retrospective correction of involuntary microscopic head movement using highly accelerated fat image navigators (3D FatNavs) at 7T. <i>Magnetic Resonance in Medicine</i> , <b>2016</b> , 75, 1030-9	4.4	74
250	Genetic Polymorphism Associated Prefrontal Glutathione and Its Coupling With Brain Glutamate and Peripheral Redox Status in Early Psychosis. <i>Schizophrenia Bulletin</i> , <b>2016</b> , 42, 1185-96	1.3	62
249	Hyperpolarized (6)Li as a probe for hemoglobin oxygenation level. <i>Contrast Media and Molecular Imaging</i> , <b>2016</b> , 11, 41-6	3.2	13
248	Simultaneous and interleaved acquisition of NMR signals from different nuclei with a clinical MRI scanner. <i>Magnetic Resonance in Medicine</i> , <b>2016</b> , 76, 1636-1641	4.4	18
247	Assessment of metabolic fluxes in the mouse brain in vivo using <sup>1</sup> H-[ <sup>13</sup> C] NMR spectroscopy at 14.1 Tesla. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2015</b> , 35, 759-65	7.3	21
246	Physiological noise in human cerebellar fMRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2015</b> , 28, 485-92	2.8	9
245	Towards high-quality simultaneous EEG-fMRI at 7 T: Detection and reduction of EEG artifacts due to head motion. <i>NeuroImage</i> , <b>2015</b> , 120, 143-53	7.9	42
244	In Vivo Longitudinal (1)H MRS Study of Transgenic Mouse Models of Prion Disease in the Hippocampus and Cerebellum at 14.1T. <i>Neurochemical Research</i> , <b>2015</b> , 40, 2639-46	4.6	6
243	Direct noninvasive estimation of myocardial tricarboxylic acid cycle flux in vivo using hyperpolarized <sup>13</sup> C magnetic resonance. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2015</b> , 87, 129-37	5.8	26
242	GDH-Dependent Glutamate Oxidation in the Brain Dictates Peripheral Energy Substrate Distribution. <i>Cell Reports</i> , <b>2015</b> , 13, 365-75	10.6	40
241	Brain energy metabolism measured by ( <sup>13</sup> C) magnetic resonance spectroscopy in vivo upon infusion of [3-( <sup>13</sup> C)]lactate. <i>Journal of Neuroscience Research</i> , <b>2015</b> , 93, 1009-18	4.4	19
240	A modulated closed form solution for quantitative susceptibility mapping--a thorough evaluation and comparison to iterative methods based on edge prior knowledge. <i>NeuroImage</i> , <b>2015</b> , 107, 163-174	7.9	40
239	Simultaneous EEG-fMRI at ultra-high field: artifact prevention and safety assessment. <i>NeuroImage</i> , <b>2015</b> , 105, 132-44	7.9	45
238	Glutathione deficit impairs myelin maturation: relevance for white matter integrity in schizophrenia patients. <i>Molecular Psychiatry</i> , <b>2015</b> , 20, 827-38	15.1	73
237	Glutathione Deficit Affects the Integrity and Function of the Fimbria/Fornix and Anterior Commissure in Mice: Relevance for Schizophrenia. <i>International Journal of Neuropsychopharmacology</i> , <b>2015</b> , 19, pyv110	5.8	30
236	Parallel imaging with phase scrambling. <i>Magnetic Resonance in Medicine</i> , <b>2015</b> , 73, 1407-19	4.4	8
235	Single acquisition electrical property mapping based on relative coil sensitivities: A proof-of-concept demonstration. <i>Magnetic Resonance in Medicine</i> , <b>2015</b> , 74, 185-195	4.4	27
234	Characterization of hepatic fatty acids in mice with reduced liver fat by ultra-short echo time (1)H-MRS at 14.1 T in vivo. <i>NMR in Biomedicine</i> , <b>2015</b> , 28, 1009-20	4.4	8



233	Imaging of prolonged BOLD response in the somatosensory cortex of the rat. <i>NMR in Biomedicine</i> , <b>2015</b> , 28, 414-21	4.4	13
232	Stroking or Buzzing? A Comparison of Somatosensory Touch Stimuli Using 7 Tesla fMRI. <i>PLoS ONE</i> , <b>2015</b> , 10, e0134610	3.7	10
231	Distinct contributions of Brodmann areas 1 and 2 to body ownership. <i>Social Cognitive and Affective Neuroscience</i> , <b>2015</b> , 10, 1449-59	4	16
230	Fast low-specific absorption rate B0 -mapping along projections at high field using two-dimensional radiofrequency pulses. <i>Magnetic Resonance in Medicine</i> , <b>2015</b> , 73, 901-8	4.4	10
229	Correcting surface coil excitation inhomogeneities in single-shot SPEN MRI. <i>Journal of Magnetic Resonance</i> , <b>2015</b> , 259, 199-206	3	3
228	A double-quadrature radiofrequency coil design for proton-decoupled carbon-13 magnetic resonance spectroscopy in humans at 7T. <i>Magnetic Resonance in Medicine</i> , <b>2015</b> , 73, 894-900	4.4	17
227	Hyperpolarized <sup>13</sup> C lactate as a substrate for in vivo metabolic studies in skeletal muscle. <i>Metabolomics</i> , <b>2014</b> , 10, 986-994	4.7	22
226	In vivo 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> , <b>2014</b> , 129, 806-15	6	15
225	Protective effects of maternal nutritional supplementation with lactoferrin on growth and brain metabolism. <i>Pediatric Research</i> , <b>2014</b> , 75, 51-61	3.2	21
224	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> , <b>2014</b> , 72, 934-40	4.4	42
223	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> , <b>2014</b> , 55, 1380-8	8.9	41
222	Clinical proton MR spectroscopy in central nervous system disorders. <i>Radiology</i> , <b>2014</b> , 270, 658-79	20.5	381
221	Longitudinal neurochemical modifications in the aging mouse brain measured in vivo by <sup>1</sup> H magnetic resonance spectroscopy. <i>Neurobiology of Aging</i> , <b>2014</b> , 35, 1660-8	5.6	61
220	MRS glucose mapping and PET joining forces: re-evaluation of the lumped constant in the rat brain under isoflurane anaesthesia. <i>Journal of Neurochemistry</i> , <b>2014</b> , 129, 672-82	6	8
219	Improving T2 -weighted imaging at high field through the use of kT -points. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 71, 1478-88	4.4	27
218	Non-invasive diagnostic biomarkers for estimating the onset time of permanent cerebral ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2014</b> , 34, 1848-55	7.3	14
217	Definition and quantification of acute inflammatory white matter injury in the immature brain by MRI/MRS at high magnetic field. <i>Pediatric Research</i> , <b>2014</b> , 75, 415-23	3.2	20
216	Ultra-high field birdcage coils: a comparison study at 14.1T. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 2360-3	0.9	4

215	Localized Single-Voxel Magnetic Resonance Spectroscopy, Water Suppression, and Novel Approaches for Ultrashort Echo-Time Measurements <b>2014</b> , 15-30		2
214	Improved temporal resolution for functional studies with reduced number of segments with three-dimensional echo planar imaging. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 72, 786-92	4.4	8
213	In vivo quantification of neuro-glial metabolism and glial glutamate concentration using $^1\text{H}$ - $^{13}\text{C}$ MRS at 14.1T. <i>Journal of Neurochemistry</i> , <b>2014</b> , 128, 125-39	6	31
212	An improved trap design for decoupling multinuclear RF coils. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 72, 584-90	4.4	39
211	Phase-based manganese enhanced MRI, a new methodology to enhance brain cytoarchitectural contrast and study manganese uptake. <i>Magnetic Resonance in Medicine</i> , <b>2014</b> , 72, 1246-56	4.4	2
210	Optimized MEGA-SPECIAL for in vivo glutamine detection in the rat brain at 14.1 T. <i>NMR in Biomedicine</i> , <b>2014</b> , 27, 1151-8	4.4	2
209	Experimental peripheral arterial disease: new insights into muscle glucose uptake, macrophage, and T-cell polarization during early and late stages. <i>Physiological Reports</i> , <b>2014</b> , 2, e00234	2.6	9
208	Human finger somatotopy in areas 3b, 1, and 2: a 7T fMRI study using a natural stimulus. <i>Human Brain Mapping</i> , <b>2014</b> , 35, 213-26	5.9	122
207	Are glutamate and lactate increases ubiquitous to physiological activation? A $(^1\text{H})$ functional MR spectroscopy study during motor activation in human brain at 7Tesla. <i>NeuroImage</i> , <b>2014</b> , 93 Pt 1, 138-45	7.9	70
206	Multi-modal assessment of long-term erythropoietin treatment after neonatal hypoxic-ischemic injury in rat brain. <i>PLoS ONE</i> , <b>2014</b> , 9, e95643	3.7	28
205	Proton T1 relaxation times of metabolites in human occipital white and gray matter at 7 T. <i>Magnetic Resonance in Medicine</i> , <b>2013</b> , 69, 931-6	4.4	61
204	An in vivo ultrahigh field 14.1 T $(^1\text{H})$ -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> , <b>2013</b> , 26, 43-50	4.4	30
203	In vivo enzymatic activity of acetylCoA synthetase in skeletal muscle revealed by $(^{13}\text{C})$ turnover from hyperpolarized $[1-(^{13}\text{C})]$ acetate to $[1-(^{13}\text{C})]$ acetylcarnitine. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2013</b> , 1830, 4171-8	4	59
202	Glutamatergic and GABAergic energy metabolism measured in the rat brain by $(^{13}\text{C})$ NMR spectroscopy at 14.1 T. <i>Journal of Neurochemistry</i> , <b>2013</b> , 126, 579-90	6	58
201	Single spin-echo T2 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> , <b>2013</b> , 26, 549-54	2.8	10
200	Digit somatotopy in the human cerebellum: a 7T fMRI study. <i>NeuroImage</i> , <b>2013</b> , 67, 354-62	7.9	36
199	Unedited in vivo detection and quantification of $\gamma$ -aminobutyric acid in the occipital cortex using short-TE MRS at 3 T. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 1353-62	4.4	62
198	Investigation of field and diffusion time dependence of the diffusion-weighted signal at ultrahigh magnetic fields. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 1251-7	4.4	16



197	Characterization of sustained BOLD activation in the rat barrel cortex and neurochemical consequences. <i>NeuroImage</i> , <b>2013</b> , 74, 343-51	7.9	25
196	Which prior knowledge? Quantification of in vivo brain <sup>13</sup> C MR spectra following <sup>13</sup> C glucose infusion using AMARES. <i>Magnetic Resonance in Medicine</i> , <b>2013</b> , 69, 1512-22	4.4	11
195	3-D residual eddy current field characterisation: applied to diffusion weighted magnetic resonance imaging. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 1515-25	11.7	7
194	Brain glucose transport and phosphorylation under acute insulin-induced hypoglycemia in mice: an <sup>18</sup> F-FDG PET study. <i>Journal of Nuclear Medicine</i> , <b>2013</b> , 54, 2153-60	8.9	9
193	Metabolic Flux and Compartmentation Analysis in the Brain In vivo. <i>Frontiers in Endocrinology</i> , <b>2013</b> , 4, 156	5.7	40
192	Net increase of lactate and glutamate concentration in activated human visual cortex detected with magnetic resonance spectroscopy at 7 tesla. <i>Journal of Neuroscience Research</i> , <b>2013</b> , 91, 1076-83	4.4	87
191	Quantification of the neurochemical profile using simulated macromolecule resonances at 3 T. <i>NMR in Biomedicine</i> , <b>2013</b> , 26, 593-9	4.4	35
190	Feasibility of direct mapping of cerebral fluorodeoxy-D-glucose metabolism in situ at subcellular resolution using soft X-ray fluorescence. <i>Journal of Neuroscience Research</i> , <b>2013</b> , 91, 1050-8	4.4	11
189	Direct mapping of <sup>19</sup> F in <sup>19</sup> FDG-6P in brain tissue at subcellular resolution using soft X-ray fluorescence. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 463, 012003	0.3	2
188	New developments and applications of the MP2RAGE sequence--focusing the contrast and high spatial resolution R1 mapping. <i>PLoS ONE</i> , <b>2013</b> , 8, e69294	3.7	96
187	The C57BL/6J mouse exhibits sporadic congenital portosystemic shunts. <i>PLoS ONE</i> , <b>2013</b> , 8, e69782	3.7	32
186	Hepatic glucose sensing is required to preserve $\beta$ -cell glucose competence. <i>Journal of Clinical Investigation</i> , <b>2013</b> , 123, 1662-76	15.9	90
185	Spread spectrum magnetic resonance imaging. <i>IEEE Transactions on Medical Imaging</i> , <b>2012</b> , 31, 586-98	11.7	65
184	High-resolution spatial mapping of changes in the neurochemical profile after focal ischemia in mice. <i>NMR in Biomedicine</i> , <b>2012</b> , 25, 247-54	4.4	18
183	In vivo metabolic profiling of glioma-initiating cells using proton magnetic resonance spectroscopy at 14.1 Tesla. <i>NMR in Biomedicine</i> , <b>2012</b> , 25, 506-13	4.4	12
182	Temporal SNR characteristics in segmented 3D-EPI at 7T. <i>Magnetic Resonance in Medicine</i> , <b>2012</b> , 67, 344-54	4.4	55
181	The neurochemical profile quantified by in vivo <sup>1</sup> H NMR spectroscopy. <i>NeuroImage</i> , <b>2012</b> , 61, 342-62	7.9	157
180	Deletion of glutamate dehydrogenase 1 (Glud1) in the central nervous system affects glutamate handling without altering synaptic transmission. <i>Journal of Neurochemistry</i> , <b>2012</b> , 123, 342-8	6	41

179	In vivo detection of brain Krebs cycle intermediate by hyperpolarized magnetic resonance. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2012</b> , 32, 2108-13	7.3	64
178	N-acetylcysteine normalizes neurochemical changes in the glutathione-deficient schizophrenia mouse model during development. <i>Biological Psychiatry</i> , <b>2012</b> , 71, 1006-14	7.9	80
177	Prospective and retrospective motion correction in diffusion magnetic resonance imaging of the human brain. <i>NeuroImage</i> , <b>2012</b> , 59, 389-98	7.9	51
176	In vivo assessment of myelination by phase imaging at high magnetic field. <i>NeuroImage</i> , <b>2012</b> , 59, 1979-87	7.9	69
175	SA2RAGE: a new sequence for fast B1+ -mapping. <i>Magnetic Resonance in Medicine</i> , <b>2012</b> , 67, 1609-19	4.4	49
174	A comparison of in vivo <sup>13</sup> C MR brain glycogen quantification at 9.4 and 14.1 T. <i>Magnetic Resonance in Medicine</i> , <b>2012</b> , 67, 1523-7	4.4	9
173	Localized in vivo hyperpolarization transfer sequences. <i>Magnetic Resonance in Medicine</i> , <b>2012</b> , 68, 349-52	4.4	26
172	In vivo structural imaging of the cerebellum, the contribution of ultra-high fields. <i>Cerebellum</i> , <b>2012</b> , 11, 384-91	4.3	13
171	Characterization of cerebral glucose dynamics in vivo with a four-state conformational model of transport at the blood-brain barrier. <i>Journal of Neurochemistry</i> , <b>2012</b> , 121, 396-406	6	33
170	Cerebral glutamine metabolism under hyperammonemia determined in vivo by localized (1)H and (15)N NMR spectroscopy. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2012</b> , 32, 696-708	7.3	36
169	A two-compartment mathematical model of neuroglial metabolism using [1-(11)C] acetate. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2012</b> , 32, 548-59	7.3	10
168	Handling macromolecule signals in the quantification of the neurochemical profile. <i>Journal of Alzheimer's Disease</i> , <b>2012</b> , 31 Suppl 3, S101-15	4.3	69
167	Proton and phosphorus magnetic resonance spectroscopy of a mouse model of Alzheimer's disease. <i>Journal of Alzheimer's Disease</i> , <b>2012</b> , 31 Suppl 3, S87-99	4.3	31
166	MP2RAGE multiple sclerosis magnetic resonance imaging at 3 T. <i>Investigative Radiology</i> , <b>2012</b> , 47, 346-52	10.1	60
165	Measurements of Glycogen Metabolism in the Living Brain. <i>Advances in Neurobiology</i> , <b>2012</b> , 699-706	2.1	
164	Cerebral Glucose Transport and Homeostasis. <i>Advances in Neurobiology</i> , <b>2012</b> , 655-673	2.1	2
163	Where sound position influences sound object representations: a 7-T fMRI study. <i>NeuroImage</i> , <b>2011</b> , 54, 1803-11	7.9	32
162	Developmental and metabolic brain alterations in rats exposed to bisphenol A during gestation and lactation. <i>International Journal of Developmental Neuroscience</i> , <b>2011</b> , 29, 37-43	2.7	36

161	Compartmentalized Cerebral Metabolism of [1,6-(13)C]Glucose Determined by in vivo (13)C NMR Spectroscopy at 14.1 T. <i>Frontiers in Neuroenergetics</i> , <b>2011</b> , 3, 3		63
160	Chronic delivery of antibody fragments using immunoisolated cell implants as a passive vaccination tool. <i>PLoS ONE</i> , <b>2011</b> , 6, e18268	3.7	6
159	Increase of [(18)F]FLT tumor uptake in vivo mediated by FdUrd: toward improving cell proliferation positron emission tomography. <i>Molecular Imaging and Biology</i> , <b>2011</b> , 13, 321-31	3.8	12
158	Longitudinal MR assessment of hypoxic ischemic injury in the immature rat brain. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 65, 305-12	4.4	25
157	Diffusion tensor echo planar imaging using surface coil transceiver with a semiadiabatic RF pulse sequence at 14.1T. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 65, 732-7	4.4	16
156	Head motion detection using FID navigators. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 66, 135-43	4.4	40
155	Detection of neuronal activity and metabolism in a model of dehydration-induced anorexia in rats at 14.1 T using manganese-enhanced MRI and 1H MRS. <i>NMR in Biomedicine</i> , <b>2011</b> , 24, 1326-36	4.4	11
154	Early predictive biomarkers for lesion after transient cerebral ischemia. <i>Stroke</i> , <b>2011</b> , 42, 799-805	6.7	33
153	Continuous arterial spin labeling of mouse cerebral blood flow using an actively-detuned two-coil system at 9.4T. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2011</b> , 2011, 6993-6	0.9	4
152	High-resolution magnetic resonance imaging quantitatively detects individual pancreatic islets. <i>Diabetes</i> , <b>2011</b> , 60, 2853-60	0.9	37
151	Effect of manganese chloride on the neurochemical profile of the rat hypothalamus. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2011</b> , 31, 2324-33	7.3	15
150	Neurochemical changes in the developing rat hippocampus during prolonged hypoglycemia. <i>Journal of Neurochemistry</i> , <b>2010</b> , 114, 728-38	6	31
149	Neurochemical profile of the developing mouse cortex determined by in vivo 1H NMR spectroscopy at 14.1 T and the effect of recurrent anaesthesia. <i>Journal of Neurochemistry</i> , <b>2010</b> , 115, 1466-77	6	44
148	Marker-independent identification of glioma-initiating cells. <i>Nature Methods</i> , <b>2010</b> , 7, 224-8	21.6	66
147	Cerebellar cortical layers: in vivo visualization with structural high-field-strength MR imaging. <i>Radiology</i> , <b>2010</b> , 254, 942-8	20.5	56
146	MP2RAGE, a self bias-field corrected sequence for improved segmentation and T1-mapping at high field. <i>NeuroImage</i> , <b>2010</b> , 49, 1271-81	7.9	709
145	Feasibility of in vivo 15N MRS detection of hyperpolarized 15N labeled choline in rats. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 5818-23	3.6	81
144	Echo-time independent signal modulations for strongly coupled systems in triple echo localization schemes: an extension of S-PRESS editing. <i>Journal of Magnetic Resonance</i> , <b>2010</b> , 203, 108-12	3	4

143	Eddy current effects on a clinical 7T-68 cm bore scanner. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2010</b> , 23, 39-43	2.8	10
142	Quantification of brain glycogen concentration and turnover through localized <sup>13</sup> C NMR of both the C1 and C6 resonances. <i>NMR in Biomedicine</i> , <b>2010</b> , 23, 270-6	4.4	15
141	Neurochemical profile of the mouse hypothalamus using in vivo <sup>1</sup> H MRS at 14.1T. <i>NMR in Biomedicine</i> , <b>2010</b> , 23, 578-83	4.4	27
140	Direct in vivo measurement of glycine and the neurochemical profile in the rat medulla oblongata. <i>NMR in Biomedicine</i> , <b>2010</b> , 23, 1097-102	4.4	14
139	Scavenging Free Radicals To Preserve Enhancement and Extend Relaxation Times in NMR using Dynamic Nuclear Polarization. <i>Angewandte Chemie</i> , <b>2010</b> , 122, 6318-6321	3.6	13
138	Scavenging free radicals to preserve enhancement and extend relaxation times in NMR using dynamic nuclear polarization. <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 6182-5	16.4	80
137	Deep thiopental anesthesia alters steady-state glucose homeostasis but not the neurochemical profile of rat cortex. <i>Journal of Neuroscience Research</i> , <b>2010</b> , 88, 413-9	4.4	19
136	<sup>1</sup> H-[ <sup>13</sup> C] NMR spectroscopy of the rat brain during infusion of [2- <sup>13</sup> C] acetate at 14.1 T. <i>Magnetic Resonance in Medicine</i> , <b>2010</b> , 64, 334-40	4.4	24
135	Diffusion-weighted spectroscopy: a novel approach to determine macromolecule resonances in short-echo time <sup>1</sup> H-MRS. <i>Magnetic Resonance in Medicine</i> , <b>2010</b> , 64, 939-46	4.4	27
134	BOLD responses to trigeminal nerve stimulation. <i>Magnetic Resonance Imaging</i> , <b>2010</b> , 28, 1143-51	3.3	15
133	Steady-state brain glucose transport kinetics re-evaluated with a four-state conformational model. <i>Frontiers in Neuroenergetics</i> , <b>2009</b> , 1, 6		22
132	Quantification of in vivo 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> , <b>2009</b> , 20, 104034	2	31
131	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> , <b>2009</b> , 30, 1171-8	5.6	28
130	Selective resonance suppression <sup>1</sup> H-[ <sup>13</sup> C] NMR spectroscopy with asymmetric adiabatic RF pulses. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 61, 260-6	4.4	4
129	Hyperpolarized lithium-6 as a sensor of nanomolar contrast agents. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 61, 1489-93	4.4	47
128	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> , <b>2009</b> , 61, 1279-85	4.4	247
127	Comparison of T1 relaxation times of the neurochemical profile in rat brain at 9.4 tesla and 14.1 tesla. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 62, 862-7	4.4	38
126	In vivo <sup>1</sup> H NMR spectroscopy of the human brain at high magnetic fields: metabolite quantification at 4T vs. 7T. <i>Magnetic Resonance in Medicine</i> , <b>2009</b> , 62, 868-79	4.4	268

125	In vivo measurement of glycine with short echo-time 1H MRS in human brain at 7 T. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2009</b> , 22, 1-4	2.8	35
124	Evolution of the neurochemical profile after transient focal cerebral ischemia in the mouse brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2009</b> , 29, 811-9	7.3	75
123	Neuroprotective role of lactate after cerebral ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2009</b> , 29, 1780-9	7.3	159
122	The rate-limiting step for glucose transport into the hypothalamus is across the blood-hypothalamus interface. <i>Journal of Neurochemistry</i> , <b>2009</b> , 109 Suppl 1, 38-45	6	19
121	Caffeine consumption attenuates neurochemical modifications in the hippocampus of streptozotocin-induced diabetic rats. <i>Journal of Neurochemistry</i> , <b>2009</b> , 111, 368-79	6	119
120	Investigation of high-resolution functional magnetic resonance imaging by means of surface and array radiofrequency coils at 7 T. <i>Magnetic Resonance Imaging</i> , <b>2009</b> , 27, 1011-8	3.3	26
119	Alteration of brain glycogen turnover in the conscious rat after 5h of prolonged wakefulness. <i>Neurochemistry International</i> , <b>2009</b> , 55, 45-51	4.4	26
118	Proton NMR of (15)N-choline metabolites enhanced by dynamic nuclear polarization. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 16014-5	16.4	95
117	On the origin of the MR image phase contrast: an in vivo MR microscopy study of the rat brain at 14.1 T. <i>NeuroImage</i> , <b>2009</b> , 46, 345-52	7.9	100
116	Non-invasive quantification of brain glycogen absolute concentration. <i>Journal of Neurochemistry</i> , <b>2008</b> , 107, 1414-23	6	22
115	Comparison of two approaches to model the macromolecule spectrum for the quantification of short TE 1H MRS spectra <b>2008</b> ,		1
114	Principles of Operation of a DNP Prepolarizer Coupled to a Rodent MRI Scanner. <i>Applied Magnetic Resonance</i> , <b>2008</b> , 34, 313-319	0.8	37
113	Comparison of three commercially available radio frequency coils for human brain imaging at 3 Tesla. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2008</b> , 21, 53-61	2.8	11
112	Quantitative proton spectroscopic imaging of the neurochemical profile in rat brain with microliter resolution at ultra-short echo times. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 59, 52-8	4.4	63
111	Editing through multiple bonds: threonine detection. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 59, 245-51	4.4	9
110	In vivo 1H NMR measurement of glycine in rat brain at 9.4 T at short echo time. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 60, 727-31	4.4	11
109	Proton T2 relaxation time of J-coupled cerebral metabolites in rat brain at 9.4 T. <i>NMR in Biomedicine</i> , <b>2008</b> , 21, 396-401	4.4	63
108	1H NMR spectroscopy of rat brain in vivo at 14.1Tesla: improvements in quantification of the neurochemical profile. <i>Journal of Magnetic Resonance</i> , <b>2008</b> , 194, 163-8	3	93

107	Snapshot gradient-recalled echo-planar images of rat brains at long echo time at 9.4 T. <i>Magnetic Resonance Imaging</i> , <b>2008</b> , 26, 954-60	3:3	5
106	Design and performance of a DNP prepolarizer coupled to a rodent MRI scanner. <i>Concepts in Magnetic Resonance Part B</i> , <b>2007</b> , 31B, 255-269	2:3	156
105	Direct validation of in vivo localized <sup>13</sup> C MRS measurements of brain glycogen. <i>Magnetic Resonance in Medicine</i> , <b>2007</b> , 57, 243-8	4:4	16
104	Dynamics of lactate concentration and blood oxygen level-dependent effect in the human visual cortex during repeated identical stimuli. <i>Journal of Neuroscience Research</i> , <b>2007</b> , 85, 3340-6	4:4	51
103	Mathematical modeling of ( <sup>13</sup> C label incorporation of the TCA cycle: the concept of composite precursor function. <i>Journal of Neuroscience Research</i> , <b>2007</b> , 85, 3304-17	4:4	17
102	Perinatal iron deficiency predisposes the developing rat hippocampus to greater injury from mild to moderate hypoxia-ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2007</b> , 27, 729-40	7:3	34
101	Sustained neuronal activation raises oxidative metabolism to a new steady-state level: evidence from <sup>1</sup> H NMR spectroscopy in the human visual cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2007</b> , 27, 1055-63	7:3	219
100	Neurochemical changes in Huntington R6/2 mouse striatum detected by in vivo <sup>1</sup> H NMR spectroscopy. <i>Journal of Neurochemistry</i> , <b>2007</b> , 100, 1397-406	6	89
99	Brain energy metabolism and neurotransmission at near-freezing temperatures: in vivo ( <sup>1</sup> H MRS study of a hibernating mammal. <i>Journal of Neurochemistry</i> , <b>2007</b> , 101, 1505-15	6	44
98	Relaxivity of Gd-based contrast agents on X nuclei with long intrinsic relaxation times in aqueous solutions. <i>Magnetic Resonance Imaging</i> , <b>2007</b> , 25, 821-5	3:3	15
97	Human brain glycogen content and metabolism: implications on its role in brain energy metabolism. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2007</b> , 292, E946-51	6	98
96	Proton MRS of the unilateral substantia nigra in the human brain at 4 tesla: detection of high GABA concentrations. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 55, 296-301	4:4	88
95	Proton-observed carbon-edited NMR spectroscopy in strongly coupled second-order spin systems. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 55, 250-7	4:4	47
94	Quantification of vitamin C in the rat brain in vivo using short echo-time <sup>1</sup> H MRS. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 55, 979-83	4:4	24
93	Localized short-echo-time proton MR spectroscopy with full signal-intensity acquisition. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 56, 965-70	4:4	214
92	Detection of an antioxidant profile in the human brain in vivo via double editing with MEGA-PRESS. <i>Magnetic Resonance in Medicine</i> , <b>2006</b> , 56, 1192-9	4:4	68
91	Biochemical quantification of total brain glycogen concentration in rats under different glycemic states. <i>Neurochemistry International</i> , <b>2006</b> , 48, 616-22	4:4	38
90	Effect of chronic hypoglycaemia on glucose concentration and glycogen content in rat brain: A localized <sup>13</sup> C NMR study. <i>Journal of Neurochemistry</i> , <b>2006</b> , 99, 260-8	6	34



89	Sensitivity of single-voxel <sup>1</sup> H-MRS in investigating the metabolism of the activated human visual cortex at 7 T. <i>Magnetic Resonance Imaging</i> , <b>2006</b> , 24, 343-8	3.3	98
88	In vivo <sup>13</sup> C NMR spectroscopy and metabolic modeling in the brain: a practical perspective. <i>Magnetic Resonance Imaging</i> , <b>2006</b> , 24, 527-39	3.3	89
87	High Magnetic Fields for Imaging Cerebral Morphology, Function, and Biochemistry. <i>Biological Magnetic Resonance</i> , <b>2006</b> , 285-342	0.5	5
86	In-Vivo NMR Spectroscopy of the Brain at High Fields <b>2006</b> , 373-409		1
85	Brain glucose concentrations in poorly controlled diabetes mellitus as measured by high-field magnetic resonance spectroscopy. <i>Metabolism: Clinical and Experimental</i> , <b>2005</b> , 54, 1008-13	12.7	37
84	In vivo effect of chronic hypoxia on the neurochemical profile of the developing rat hippocampus. <i>Developmental Brain Research</i> , <b>2005</b> , 156, 202-9		60
83	Brain glucose concentrations in patients with type 1 diabetes and hypoglycemia unawareness. <i>Journal of Neuroscience Research</i> , <b>2005</b> , 79, 42-7	4.4	80
82	Evaluation of brain mitochondrial glutamate and alpha-ketoglutarate transport under physiologic conditions. <i>Journal of Neuroscience Research</i> , <b>2005</b> , 79, 106-13	4.4	27
81	Brain glucose concentrations in healthy humans subjected to recurrent hypoglycemia. <i>Journal of Neuroscience Research</i> , <b>2005</b> , 82, 525-30	4.4	30
80	Uncovering hidden in vivo resonances using editing based on localized TOCSY. <i>Magnetic Resonance in Medicine</i> , <b>2005</b> , 53, 783-9	4.4	13
79	In vivo <sup>1</sup> H NMR spectroscopy and neurochemistry. Quantification matters. <i>Magnetic Resonance in Medicine</i> , <b>2005</b> , 54, 1048-1049	4.4	0
78	Validation of glutathione quantitation from STEAM spectra against edited <sup>1</sup> H NMR spectroscopy at 4T: application to schizophrenia. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2005</b> , 18, 276-82	2.8	81
77	Methodology of <sup>1</sup> H NMR Spectroscopy of the Human Brain at Very High Magnetic Fields. <i>Applied Magnetic Resonance</i> , <b>2005</b> , 29, 139-157	0.8	140
76	A localization method for the measurement of fast relaxing <sup>13</sup> C NMR signals in humans at high magnetic fields. <i>Applied Magnetic Resonance</i> , <b>2005</b> , 29, 159-169	0.8	10
75	Neuroglial metabolism in the awake rat brain: CO <sub>2</sub> fixation increases with brain activity. <i>Journal of Neuroscience</i> , <b>2004</b> , 24, 11273-9	6.6	192
74	Whole-brain glutamate metabolism evaluated by steady-state kinetics using a double-isotope procedure: effects of gabapentin. <i>Journal of Neurochemistry</i> , <b>2004</b> , 90, 1104-16	6	37
73	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. <i>Journal of Neurochemistry</i> , <b>2004</b> , 91, 778-87	6	39
72	Temperature and SAR calculations for a human head within volume and surface coils at 64 and 300 MHz. <i>Journal of Magnetic Resonance Imaging</i> , <b>2004</b> , 19, 650-6	5.6	202

71	<sup>1</sup> H NMR detection of vitamin C in human brain in vivo. <i>Magnetic Resonance in Medicine</i> , <b>2004</b> , 51, 225-9	4.4	54
70	Highly resolved in vivo <sup>1</sup> H NMR spectroscopy of the mouse brain at 9.4 T. <i>Magnetic Resonance in Medicine</i> , <b>2004</b> , 52, 478-84	4.4	160
69	Principles of the measurement of neuro-glial metabolism using in vivo <sup>13</sup> C NMR spectroscopy. <i>Advances in Molecular and Cell Biology</i> , <b>2003</b> , 409-433		8
68	Perinatal iron deficiency alters the neurochemical profile of the developing rat hippocampus. <i>Journal of Nutrition</i> , <b>2003</b> , 133, 3215-21	4.1	174
67	Ultrahigh field magnetic resonance imaging and spectroscopy. <i>Magnetic Resonance Imaging</i> , <b>2003</b> , 21, 1263-81	3.3	199
66	Effect of hypoglycemia on brain glycogen metabolism in vivo. <i>Journal of Neuroscience Research</i> , <b>2003</b> , 72, 25-32	4.4	174
65	Glycogen: the forgotten cerebral energy store. <i>Journal of Neuroscience Research</i> , <b>2003</b> , 74, 179-83	4.4	159
64	Developmental and regional changes in the neurochemical profile of the rat brain determined by in vivo <sup>1</sup> H NMR spectroscopy. <i>Magnetic Resonance in Medicine</i> , <b>2003</b> , 50, 24-32	4.4	175
63	Measurement of reduced glutathione (GSH) in human brain using LCModel analysis of difference-edited spectra. <i>Magnetic Resonance in Medicine</i> , <b>2003</b> , 50, 19-23	4.4	144
62	<sup>1</sup> H-localized broadband <sup>13</sup> C NMR spectroscopy of the rat brain in vivo at 9.4 T. <i>Magnetic Resonance in Medicine</i> , <b>2003</b> , 50, 684-92	4.4	66
61	Toward dynamic isotopomer analysis in the rat brain in vivo: automatic quantitation of <sup>13</sup> C NMR spectra using LCModel. <i>NMR in Biomedicine</i> , <b>2003</b> , 16, 400-12	4.4	67
60	Localized in vivo <sup>13</sup> C NMR spectroscopy of the brain. <i>NMR in Biomedicine</i> , <b>2003</b> , 16, 313-38	4.4	143
59	In vivo <sup>13</sup> C NMR assessment of brain glycogen concentration and turnover in the awake rat. <i>Neurochemistry International</i> , <b>2003</b> , 43, 317-22	4.4	73
58	Direct, noninvasive measurement of brain glycogen metabolism in humans. <i>Neurochemistry International</i> , <b>2003</b> , 43, 323-9	4.4	78
57	Direct in vivo measurement of human cerebral GABA concentration using MEGA-editing at 7 Tesla. <i>Magnetic Resonance in Medicine</i> , <b>2002</b> , 47, 1009-12	4.4	120
56	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. <i>FEBS Journal</i> , <b>2002</b> , 269, 4418-4426 <sup>21</sup>		
55	Effect of deep pentobarbital anesthesia on neurotransmitter metabolism in vivo: on the correlation of total glucose consumption with glutamatergic action. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2002</b> , 22, 1343-51	7.3	114
54	In vivo <sup>13</sup> C NMR studies of compartmentalized cerebral carbohydrate metabolism. <i>Neurochemistry International</i> , <b>2002</b> , 41, 143-54	4.4	105

53	Effect of Deep Pentobarbital Anesthesia on Neurotransmitter Metabolism In Vivo: On the Correlation of Total Glucose Consumption With Glutamatergic Action. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2002</b> , 1343-1351	7.3	37
52	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. <i>FEBS Journal</i> , <b>2002</b> , 269, 4418-26		4
51	Metabolic changes in quinolinic acid-lesioned rat striatum detected non-invasively by in vivo (1)H NMR spectroscopy. <i>Journal of Neuroscience Research</i> , <b>2001</b> , 66, 891-8	4.4	49
50	In vivo 1H NMR spectroscopy of the human brain at 7 T. <i>Magnetic Resonance in Medicine</i> , <b>2001</b> , 46, 451-6	4.4	303
49	Study of tricarboxylic acid cycle flux changes in human visual cortex during hemifield visual stimulation using (1)H-[(13)C] MRS and fMRI. <i>Magnetic Resonance in Medicine</i> , <b>2001</b> , 45, 349-55	4.4	106
48	In vivo measurements of brain glucose transport using the reversible Michaelis-Menten model and simultaneous measurements of cerebral blood flow changes during hypoglycemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2001</b> , 21, 653-63	7.3	122
47	The effect of insulin on in vivo cerebral glucose concentrations and rates of glucose transport/metabolism in humans. <i>Diabetes</i> , <b>2001</b> , 50, 2203-9	0.9	145
46	A mathematical model of compartmentalized neurotransmitter metabolism in the human brain. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2001</b> , 281, E100-12	6	262
45	Field mapping without reference scan using asymmetric echo-planar techniques. <i>Magnetic Resonance in Medicine</i> , <b>2000</b> , 43, 319-23	4.4	439
44	Effect of acute hyperglycemia on visual cortical activation as measured by functional MRI. <i>Journal of Neuroscience Research</i> , <b>2000</b> , 62, 279-85	4.4	19
43	Single-shot, three-dimensional "non-echo" localization method for in vivo NMR spectroscopy. <i>Magnetic Resonance in Medicine</i> , <b>2000</b> , 44, 387-94	4.4	62
42	Extracellular-intracellular distribution of glucose and lactate in the rat brain assessed noninvasively by diffusion-weighted 1H nuclear magnetic resonance spectroscopy in vivo. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2000</b> , 20, 736-46	7.3	126
41	Magnetic resonance studies of brain function and neurochemistry. <i>Annual Review of Biomedical Engineering</i> , <b>2000</b> , 2, 633-60	12	78
40	Field mapping without reference scan using asymmetric echo-planar techniques <b>2000</b> , 43, 319		2
39	Noninvasive measurements of [1-(13)C]glycogen concentrations and metabolism in rat brain in vivo. <i>Journal of Neurochemistry</i> , <b>1999</b> , 73, 1300-8	6	86
38	Water diffusion in rat brain in vivo as detected at very large b values is multicompartamental. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>1999</b> , 8, 98-108	2.8	37
37	Toward an in vivo neurochemical profile: quantification of 18 metabolites in short-echo-time (1)H NMR spectra of the rat brain. <i>Journal of Magnetic Resonance</i> , <b>1999</b> , 141, 104-20	3	423
36	In vivo 1H NMR spectroscopy of rat brain at 1 ms echo time. <i>Magnetic Resonance in Medicine</i> , <b>1999</b> , 41, 649-56	4.4	752

35	In vivo observation of lactate methyl proton magnetization transfer in rat C6 glioma. <i>Magnetic Resonance in Medicine</i> , <b>1999</b> , 41, 676-85	4.4	20
34	Localized in vivo <sup>1</sup> H NMR detection of neurotransmitter labeling in rat brain during infusion of [1- <sup>13</sup> C] D-glucose. <i>Magnetic Resonance in Medicine</i> , <b>1999</b> , 41, 1077-83	4.4	101
33	Localized eddy current compensation using quantitative field mapping. <i>Journal of Magnetic Resonance</i> , <b>1998</b> , 131, 139-43	3	55
32	Resolution improvements in in vivo <sup>1</sup> H NMR spectra with increased magnetic field strength. <i>Journal of Magnetic Resonance</i> , <b>1998</b> , 135, 260-4	3	161
31	Identification of a high concentration of scyllo-inositol in the brain of a healthy human subject using <sup>1</sup> H- and <sup>13</sup> C-NMR. <i>Magnetic Resonance in Medicine</i> , <b>1998</b> , 39, 313-6	4.4	38
30	Detecting natural abundance carbon signal of NAA metabolite within 12-cm <sup>3</sup> localized volume of human brain using <sup>1</sup> H-[ <sup>13</sup> C] NMR spectroscopy. <i>Magnetic Resonance in Medicine</i> , <b>1998</b> , 40, 180-4	4.4	32
29	Brain lactate by magnetic resonance spectroscopy during fulminant hepatic failure in the dog. <i>Liver Transplantation</i> , <b>1998</b> , 4, 158-65		34
28	Steady-state cerebral glucose concentrations and transport in the human brain. <i>Journal of Neurochemistry</i> , <b>1998</b> , 70, 397-408	6	173
27	Localized in vivo <sup>13</sup> C-NMR of glutamate metabolism in the human brain: initial results at 4 tesla. <i>Developmental Neuroscience</i> , <b>1998</b> , 20, 380-8	2.2	175
26	In vivo magnetic resonance spectroscopy of human brain: the biophysical basis of dementia. <i>Biophysical Chemistry</i> , <b>1997</b> , 68, 161-72	3.5	72
25	A half-volume coil for efficient proton decoupling in humans at 4 tesla. <i>Journal of Magnetic Resonance</i> , <b>1997</b> , 125, 178-84	3	150
24	Observation of resolved glucose signals in <sup>1</sup> H NMR spectra of the human brain at 4 Tesla. <i>Magnetic Resonance in Medicine</i> , <b>1996</b> , 36, 1-6	4.4	81
23	Broadband decoupled, <sup>1</sup> H-localized <sup>13</sup> C MRS of the human brain at 4 Tesla. <i>Magnetic Resonance in Medicine</i> , <b>1996</b> , 36, 659-64	4.4	74
22	<sup>1</sup> H NMR studies of glucose transport in the human brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1996</b> , 16, 427-38	7.3	81
21	Simultaneous determination of the rates of the TCA cycle, glucose utilization, alpha-ketoglutarate/glutamate exchange, and glutamine synthesis in human brain by NMR. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1995</b> , 15, 12-25	7.3	283
20	Synchronization device for electrocardiography-gated echo-planar imaging. <i>Radiology</i> , <b>1995</b> , 197, 311-3	20.5	19
19	Localized <sup>13</sup> C NMR spectroscopy in the human brain of amino acid labeling from D-[1- <sup>13</sup> C]glucose. <i>Journal of Neurochemistry</i> , <b>1994</b> , 63, 1377-85	6	202
18	Validation of <sup>13</sup> C NMR measurements of liver glycogen in vivo. <i>Magnetic Resonance in Medicine</i> , <b>1994</b> , 31, 583-8	4.4	60

17	Echo-planar magnetic resonance imaging studies of frontal cortex activation during word generation in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1993</b> , 90, 4952-6	11.5	369
16	Determination of saturation factors in 31P NMR spectra of the developing human brain. <i>Magnetic Resonance in Medicine</i> , <b>1993</b> , 29, 7-11	4.4	14
15	Automatic, localized in vivo adjustment of all first- and second-order shim coils. <i>Magnetic Resonance in Medicine</i> , <b>1993</b> , 29, 804-11	4.4	747
14	Non-invasive measurements of the cerebral steady-state glucose concentration and transport in humans by 13C nuclear magnetic resonance. <i>Advances in Experimental Medicine and Biology</i> , <b>1993</b> , 331, 35-40	3.6	14
13	Direct measurement of brain glucose concentrations in humans by 13C NMR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1992</b> , 89, 1109-12	11.5	178
12	Localized 13C NMR spectroscopy of myo-inositol in the human brain in vivo. <i>Magnetic Resonance in Medicine</i> , <b>1992</b> , 25, 204-10	4.4	46
11	Detection and assignment of the glucose signal in 1H NMR difference spectra of the human brain. <i>Magnetic Resonance in Medicine</i> , <b>1992</b> , 27, 183-8	4.4	47
10	Temporal and spatial analysis of fields generated by eddy currents in superconducting magnets: optimization of corrections and quantitative characterization of magnet/gradient systems. <i>Magnetic Resonance in Medicine</i> , <b>1991</b> , 20, 268-84	4.4	94
9	13C NMR visibility of rabbit muscle glycogen in vivo. <i>Magnetic Resonance in Medicine</i> , <b>1991</b> , 20, 327-32	4.4	50
8	Non-invasive 31P magnetic resonance spectroscopy revealed McArdle disease in an asymptomatic child. <i>European Journal of Pediatrics</i> , <b>1990</b> , 149, 483-6	4.1	8
7	A simple design for a double-tunable probe head for imaging and spectroscopy at high fields. <i>Magnetic Resonance in Medicine</i> , <b>1990</b> , 15, 128-34	4.4	9
6	A method for rapid evaluation of saturation factors in in vivo surface coil NMR spectroscopy using B1-insensitive pulse cycles. <i>NMR in Biomedicine</i> , <b>1990</b> , 3, 265-71	4.4	15
5	Variations in the in vivo P-31 MR spectra of the developing human brain during postnatal life. Work in progress. <i>Radiology</i> , <b>1989</b> , 172, 197-9	20.5	50
4	Sequential NMR assignments of labile protons in DNA using two-dimensional nuclear-Overhauser-enhancement spectroscopy with three jump-and-return pulse sequences. <i>FEBS Journal</i> , <b>1987</b> , 166, 215-20		21
3	Deletion of Crtc1 leads to hippocampal neuroenergetic impairments associated with depressive-like behavior		1
2	Capturing the spatiotemporal dynamics of task-initiated thoughts with combined EEG and fMRI		1
1	Nucleus accumbens neurochemistry in human anxiety: A 7 T 1H-MRS study		1