Kevin L Behar

List of Publications by Year
in descending order

160	17,268	10986	14208
papers	citations	71 h-index	128 g-index

162	162	162	11164
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stoichiometric coupling of brain glucose metabolism and glutamatergic neuronalâ€‰activity. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 316-321.	7.1	798
2	Reduced Cortical Î³-Aminobutyric Acid Levels in Depressed Patients Determined by Proton Magnetic Resonance Spectroscopy. Archives of General Psychiatry, 1999, 56, 1043.	12.3	547
3	Energetic basis of brain activity: implications for neuroimaging. Trends in Neurosciences, 2004, 27, 489-495.	8.6	511
4	Localized 1H NMR measurements of gamma-aminobutyric acid in human brain in vivo.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 5662-5666.	7.1	495
5	Analysis of macromolecule resonances in1H NMR spectra of human brain. Magnetic Resonance in Medicine, 1994, 32, 294-302.	3.0	468
6	Determination of the rate of the glutamate/glutamine cycle in the human brain by in vivo ¹³ C NMR. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8235-8240.	7.1	432
7	Glial pathology in an animal model of depression: reversal of stress-induced cellular, metabolic and behavioral deficits by the glutamate-modulating drug riluzole. Molecular Psychiatry, 2010, 15, 501-511.	7.9	384
8	Neuronalâ€“Glial Glucose Oxidation and Glutamatergicâ€“GABAergic Function. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 865-877.	4.3	365
9	Astroglial Contribution to Brain Energy Metabolism in Humans Revealed by¹³C Nuclear Magnetic Resonance Spectroscopy: Elucidation of the Dominant Pathway for Neurotransmitter Glutamate Repletion and Measurement of Astrocytic Oxidative Metabolism. Journal of Neuroscience, 2002, 22, 1523-1531.	3.6	351
10	In vivo 13C NMR measurements of cerebral glutamine synthesis as evidence for glutamate-glutamine cycling. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 2699-2704.	7.1	323
11	Cerebral energetics and spiking frequency: The neurophysiological basis of fMRI. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10765-10770.	7.1	322
12	In vivo NMR Studies of the Glutamate Neurotransmitter Flux and Neuroenergetics: Implications for Brain Function. Annual Review of Physiology, 2003, 65, 401-427.	13.1	310
13	The contribution of GABA to glutamate/glutamine cycling and energy metabolism in the rat cortex in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5588-5593.	7.1	308
14	Simultaneous Determination of the Rates of the TCA Cycle, Glucose Utilization, Î±-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
15	The effect of gabapentin on brain gammaâ€aminobutyric acid in patients with epilepsy. Annals of Neurology, 1996, 39, 95-99.	5.3	289
16	High-resolution 1H nuclear magnetic resonance study of cerebral hypoxia in vivo.. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80, 4945-4948.	7.1	282
17	The Contribution of Blood Lactate to Brain Energy Metabolism in Humans Measured by Dynamic¹³C Nuclear Magnetic Resonance Spectroscopy. Journal of Neuroscience, 2010, 30, 13983-13991.	3.6	279
18	High magnetic field water and metabolite protonT1 andT2 relaxation in rat brain in vivo. Magnetic Resonance in Medicine, 2006, 56, 386-394.	3.0	271

#	Article	IF	Citations
19	The Flux from Glucose to Glutamate in the Rat Brain in vivo as Determined by ¹-Observed, ¹³C-Edited NMR Spectroscopy. Journal of Cerebral Blood Flow and Metabolism, 1990, 10, 170-179.	4.3	259
20	NMR Determination of the TCA Cycle Rate and Î±-Ketoglutarate/Glutamate Exchange Rate in Rat Brain. Journal of Cerebral Blood Flow and Metabolism, 1992, 12, 434-447.	4.3	249
21	¹³C MRS studies of neuroenergetics and neurotransmitter cycling in humans. NMR in Biomedicine, 2011, 24, 943-957.	2.8	249
22	Comparing adiposity profiles in three mouse models with altered GH signaling. Growth Hormone and IGF Research, 2004, 14, 309-318.	1.1	244
23	A Neuronal Glutamate Transporter Contributes to Neurotransmitter GABA Synthesis and Epilepsy. Journal of Neuroscience, 2002, 22, 6372-6379.	3.6	237
24	In vivo13Câ€ƒNMR measurement of neurotransmitter glutamate cycling, anaplerosis and TCA cycle flux in rat brain during [2-13C]glucose infusion. Journal of Neurochemistry, 2003, 76, 975-989.	3.9	229
25	Altered Brain Mitochondrial Metabolism in Healthy Aging as Assessed by in vivo Magnetic Resonance Spectroscopy. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 211-221.	4.3	223
26	Reductions in Occipital Cortex GABA Levels in Panic Disorder Detected With 1H-Magnetic Resonance Spectroscopy. Archives of General Psychiatry, 2001, 58, 556.	12.3	222
27	1H-Observe/13C-decouple spectroscopic measurements of lactate and glutamate in the rat brain in vivo.. Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 1633-1637.	7.1	221
28	Homonuclear 1H double-resonance difference spectroscopy of the rat brain in vivo.. Proceedings of the National Academy of Sciences of the United States of America, 1984, 81, 6330-6334.	7.1	212
29	Characterization of macromolecule resonances in the1H NMR spectrum of rat brain. Magnetic Resonance in Medicine, 1993, 30, 38-44.	3.0	204
30	In vivo nuclear magnetic resonance spectroscopy studies of the relationship between the glutamate–glutamine neurotransmitter cycle and functional neuroenergetics. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 1165-1177.	4.0	201
31	Deuterium metabolic imaging (DMI) for MRI-based 3D mapping of metabolism in vivo. Science Advances, 2018, 4, eaat7314.	10.3	194
32	Quantitative functional imaging of the brain: towards mapping neuronal activity by BOLD fMRI. NMR in Biomedicine, 2001, 14, 413-431.	2.8	188
33	Increased tricarboxylic acid cycle flux in rat brain during forepaw stimulation detected with 1H[13C]NMR.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 7612-7617.	7.1	185
34	In vivo carbon-13 nuclear magnetic resonance studies of mammals. Science, 1981, 214, 660-662.	12.6	177
35	Cerebral metabolic studies in vivo by 31P NMR.. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80, 2748-2751.	7.1	172
36	Assignment of resonances in the1H spectrum of rat brain by two-dimensional shift correlated andj-resolved NMR spectroscopy. Magnetic Resonance in Medicine, 1991, 17, 285-303.	3.0	168

#	Article	IF	Citations
37	Effect of Hypoglycemic Encephalopathy upon Amino Acids, High-Energy Phosphates, and pHiin the Rat Brain In Vivo: Detection by Sequential1H and31P NMR Spectroscopy. Journal of Neurochemistry, 1985, 44, 1045-1055.	3.9	165
38	Direct evidence for activity-dependent glucose phosphorylation in neurons with implications for the astrocyte-to-neuron lactate shuttle. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5385-5390.	7.1	160
39	Transiently increased glutamate cycling in rat PFC is associated with rapid onset of antidepressant-like effects. Molecular Psychiatry, 2017, 22, 120-126.	7.9	158
40	Dynamic Magnetic Resonance Imaging of the Rat Brain during Forepaw Stimulation. Journal of Cerebral Blood Flow and Metabolism, 1994, 14, 649-655.	4.3	156
41	Role of Trehalose Phosphate Synthase in Anoxia Tolerance and Development in Drosophila melanogaster. Journal of Biological Chemistry, 2002, 277, 3274-3279.	3.4	152
42	Preliminary Evidence of Low Cortical GABA Levels in Localized¹H-MR Spectra of Alcohol-Dependent and Hepatic Encephalopathy Patients. American Journal of Psychiatry, 1999, 156, 952-954.	7.2	146
43	Glutamatergic Neurotransmission and Neuronal Glucose Oxidation are Coupled during Intense Neuronal Activation. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 972-985.	4.3	141
44	Low brain GABA level is associated with poor seizure control. Annals of Neurology, 1996, 40, 908-911.	5.3	138
45	In vivo1H-[13C]-NMR spectroscopy of cerebral metabolism. NMR in Biomedicine, 2003, 16, 339-357.	2.8	134
46	Human Brain Î²-Hydroxybutyrate and Lactate Increase in Fasting-Induced Ketosis. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 1502-1507.	4.3	128
47	Oxidative Glucose Metabolism in Rat Brain during Single Forepaw Stimulation: A Spatially Localized 1H[13C] Nuclear Magnetic Resonance Study. Journal of Cerebral Blood Flow and Metabolism, 1997, 17, 1040-1047.	4.3	122
48	In vivo phosphorus nuclear magnetic resonance spectroscopy in status epilepticus. Annals of Neurology, 1984, 16, 169-177.	5.3	119
49	1H-[13C]-Nuclear Magnetic Resonance Spectroscopy Measures of Ketamine's Effect on Amino Acid Neurotransmitter Metabolism. Biological Psychiatry, 2012, 71, 1022-1025.	1.3	114
50	Initial Observations on Effect of Vigabatrin on In Vivo 1H Spectroscopic Measurements of gamma-Aminobutyric Acid, Glutamate, and Glutamine in Human Brain. Epilepsia, 1995, 36, 457-464.	5.1	111
51	Evidence that GAD65mediates increased GABA synthesis during intense neuronal activityinâ€ƒvivo. Journal of Neurochemistry, 2006, 97, 385-396.	3.9	107
52	NMR Determination of Intracerebral Glucose Concentration and Transport Kinetics in Rat Brain. Journal of Cerebral Blood Flow and Metabolism, 1992, 12, 448-455.	4.3	106
53	Impaired GABA Neuronal Response to Acute Benzodiazepine Administration in Panic Disorder. American Journal of Psychiatry, 2004, 161, 2186-2193.	7.2	105
54	Detection of metabolites in rabbit brain by13C NMR spectroscopy following administration of [1-13C]glucose. Magnetic Resonance in Medicine, 1986, 3, 911-920.	3.0	104

#	Article	IF	Citations
55	High-Resolution CMRO2 Mapping in Rat Cortex: A Multiparametric Approach to Calibration of BOLD Image Contrast at 7 Tesla. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 847-860.	4.3	104
56	State of the art direct ¹³C and indirect ¹Hâ€[¹³C] NMR spectroscopy in vivo. A practical guide. NMR in Biomedicine, 2011, 24, 958-972.	2.8	101
57	Homocarnosine and the measurement of neuronal pH in patients with epilepsy. Magnetic Resonance in Medicine, 1997, 38, 924-929.	3.0	100
58	Glutamine is the major precursor for GABA synthesis in rat neocortex in vivo following acute GABA-transaminase inhibition. Brain Research, 2001, 919, 207-220.	2.2	99
59	Effects of Acute Hyperammonemia on Cerebral Amino Acid Metabolism and pHIn Vivo, Measured by1H and31P Nuclear Magnetic Resonance. Journal of Neurochemistry, 1989, 52, 741-749.	3.9	98
60	Short echo time proton magnetic resonance spectroscopic imaging of macromolecule and metabolite signal intensities in the human brain. Magnetic Resonance in Medicine, 1996, 35, 633-639.	3.0	92
61	Dependence of Oxygen Delivery on Blood Flow in Rat Brain: A 7 Tesla Nuclear Magnetic Resonance Study. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 485-498.	4.3	92
62	Contribution of macromolecules to brain ¹H MR spectra: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4393.	2.8	92
63	Regional glucose metabolism and glutamatergic neurotransmission in rat brain in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12700-12705.	7.1	88
64	Functional Energy Metabolism:In vivo ¹³C-NMR Spectroscopy Evidence for Coupling of Cerebral Glucose Consumption and Gl utamatergic Neuronal Activity. Developmental Neuroscience, 1998, 20, 321-330.	2.0	86
65	Detection of [1,6-13C2]-glucose metabolism in rat brain by in vivo1H-[13C]-NMR spectroscopy. Magnetic Resonance in Medicine, 2003, 49, 37-46.	3.0	86
66	Quantitative ¹H NMR Spectroscopy of Blood Plasma Metabolites. Analytical Chemistry, 2003, 75, 2100-2104.	6.5	84
67	Decrease in GABA synthesis rate in rat cortex following GABA-transaminase inhibition correlates with the decrease in GAD67 protein. Brain Research, 2001, 914, 81-91.	2.2	81
68	Lactate preserves neuronal metabolism and function following antecedent recurrent hypoglycemia. Journal of Clinical Investigation, 2013, 123, 1988-1998.	8.2	80
69	Evaluation of Cerebral Acetate Transport and Metabolic Rates in the Rat Brain in vivo Using ¹H-[¹³C]-NMR. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 1200-1213.	4.3	78
70	Human Brain Î³â€Aminobutyric Acid Levels and Seizure Control Following Initiation of Vigabatrin Therapy. Journal of Neurochemistry, 1996, 67, 2399-2404.	3.9	76
71	Glutamatergic and GABAergic Neurotransmitter Cycling and Energy Metabolism in Rat Cerebral Cortex during Postnatal Development. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1895-1907.	4.3	75
72	The Contribution of Ketone Bodies to Basal and Activity-Dependent Neuronal Oxidation in Vivo. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1233-1242.	4.3	75

#	Article	IF	Citations
73	Intravenous Ethanol Infusion Decreases Human Cortical Î³-Aminobutyric Acid and N-Acetylaspartate as Measured with Proton Magnetic Resonance Spectroscopy at 4 Tesla. Biological Psychiatry, 2012, 71, 239-246.	1.3	74
74	A ketogenic diet increases transport and oxidation of ketone bodies in RG2 and 9L gliomas without affecting tumor growth. Neuro-Oncology, 2016, 18, 1079-1087.	1.2	72
75	Detection of cerebral lactate in vivo during hypoxemia by 1H NMR at relatively low field strengths (1.9) Tj ETQq1 1 0.784314 rgBT /Ov	7.1	71
76	Effects of valproate and other antiepileptic drugs on brain glutamate, glutamine, and GABA in patients with refractory complex partial seizures. Seizure: the Journal of the British Epilepsy Association, 1999, 8, 120-127.	2.0	68
77	NMR Spectroscopic Investigation of the Recovery of Energy and Acidâ€"Base Homeostasis in the Cat Brain after Prolonged Ischemia. Journal of Cerebral Blood Flow and Metabolism, 1989, 9, 655-665.	4.3	65
78	Vigabatrin: Effects on Human Brain GABA Levels by Nuclear Magnetic Resonance Spectroscopy. Epilepsia, 1994, 35, S29-32.	5.1	65
79	¹⁵N-NMR Spectroscopy Studies of Ammonia Transport and Glutamine Synthesis in the Hyperammonemic Rat Brain. Developmental Neuroscience, 1998, 20, 434-443.	2.0	63
80	The rate of turnover of cortical GABA from [1-13C]glucose is reduced in rats treated with the GABA-transaminase inhibitor vigabatrin (Î³-vinyl GABA). Neurochemical Research, 1996, 21, 1031-1041.	3.3	61
81	Vigabatrin increases human brain homocarnosine and improves seizure control. Annals of Neurology, 1998, 44, 948-952.	5.3	60
82	13C NMR study of transamination during acetate utilization by Saccharomyces cerevisiae.. Proceedings of the National Academy of Sciences of the United States of America, 1981, 78, 2693-2697.	7.1	57
83	Roles of Glutamine Synthetase Inhibition in Epilepsy. Neurochemical Research, 2012, 37, 2339-2350.	3.3	57
84	In Vivo Nuclear Magnetic Resonance Studies of Glutamate-Î³-Aminobutyric Acid-Glutamine Cycling in Rodent and Human Cortex: the Central Role of Glutamine. Journal of Nutrition, 2001, 131, 2498S-2504S.	2.9	54
85	Is there In Vivo Evidence for Amino Acid Shuttles Carrying Ammonia from Neurons to Astrocytes?. Neurochemical Research, 2012, 37, 2597-2612.	3.3	53
86	Expression of Drosophila Trehalose-Phosphate Synthase in HEK-293 Cells Increases Hypoxia Tolerance. Journal of Biological Chemistry, 2003, 278, 49113-49118.	3.4	52
87	Altered cerebral glucose and acetate metabolism in succinic semialdehyde dehydrogenaseâ€deficient mice: evidence for glial dysfunction and reduced glutamate/glutamine cycling. Journal of Neurochemistry, 2007, 103, 2077-2091.	3.9	52
88	Quantification of High-Resolution¹H NMR Spectra from Rat Brain Extracts. Analytical Chemistry, 2011, 83, 216-224.	6.5	49
89	Cell-type specific modulation of NMDA receptors triggers antidepressant actions. Molecular Psychiatry, 2021, 26, 5097-5111.	7.9	48
90	Detection of cerebral NAD⁺ by in vivo¹H NMR spectroscopy. NMR in Biomedicine, 2014, 27, 802-809.	2.8	47

#	Article	IF	Citations
91	Differential Glutamate Dehydrogenase (GDH) Activity Profile in Patients with Temporal Lobe Epilepsy. Epilepsia, 2006, 47, 1292-1299.	5.1	46
92	Determination of liposomal encapsulation efficiency using proton NMR spectroscopy. Chemistry and Physics of Lipids, 2004, 127, 113-120.	3.2	45
93	Lamotrigine suppresses neurophysiological responses to somatosensory stimulation in the rodent. NeuroImage, 2006, 29, 216-224.	4.2	45
94	Inhibition of Voltage-Dependent Sodium Channels Suppresses the Functional Magnetic Resonance Imaging Response to Forepaw Somatosensory Activation in the Rodent. Journal of Cerebral Blood Flow and Metabolism, 2001, 21, 585-591.	4.3	44
95	Chronic Riluzole Treatment Increases Glucose Metabolism in Rat Prefrontal Cortex and Hippocampus. Journal of Cerebral Blood Flow and Metabolism, 2008, 28, 1892-1897.	4.3	42
96	Cerebral pyruvate carboxylase flux is unaltered during bicuculline-seizures. Journal of Neuroscience Research, 2005, 79, 128-138.	2.9	41
97	In vivo neurochemical profiling of rat brain by ¹Hâ€[¹³C] NMR spectroscopy: cerebral energetics and glutamatergic/GABAergic neurotransmission. Journal of Neurochemistry, 2010, 112, 24-33.	3.9	41
98	Oxidation of ethanol in the rat brain and effects associated with chronic ethanol exposure. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14444-14449.	7.1	41
99	Measurement of GABA following GABA-transaminase inhibition by gabaculine: A1H and31P NMR spectroscopic study of rat brainin vivo. Magnetic Resonance in Medicine, 1994, 31, 660-667.	3.0	40
100	Acute regulation of steady-state GABA levels following GABA-transaminase inhibition in rat cerebral cortex. Neurochemistry International, 2006, 48, 508-514.	3.8	40
101	In situ 3D magnetic resonance metabolic imaging of microwaveâ€irradiated rodent brain: a new tool for metabolomics research. Journal of Neurochemistry, 2009, 109, 494-501.	3.9	40
102	Chronic hypoxia in development selectively alters the activities of key enzymes of glucose oxidative metabolism in brain regions. Neurochemical Research, 2003, 28, 933-940.	3.3	38
103	Recurrent Antecedent Hypoglycemia Alters Neuronal Oxidative Metabolism In Vivo. Diabetes, 2009, 58, 1266-1274.	0.6	38
104	Detection of cerebral NAD⁺ in humans at 7T. Magnetic Resonance in Medicine, 2017, 78, 828-835.	3.0	38
105	In vivo ¹³C and ¹Hâ€[¹³C] MRS studies of neuroenergetics and neurotransmitter cycling, applications to neurological and psychiatric disease and brain cancer. NMR in Biomedicine, 2019, 32, e4172.	2.8	34
106	Concentration-Dependent Effects on Intracellular and Surface pH of Exposing Xenopus oocytes to Solutions Containing NH3/NH4 +. Journal of Membrane Biology, 2009, 228, 15-31.	2.1	32
107	Neurovascular and neurometabolic couplings in dynamic calibrated fMRI: transient oxidative neuroenergetics for block-design and event-related paradigms. Frontiers in Neuroenergetics, 2010, 2, .	5.3	31
108	Characterization of Cerebral Glutamine Uptake from Blood in the Mouse Brain: Implications for Metabolic Modeling of ¹³C NMR Data. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1666-1672.	4.3	31

#	Article	IF	Citations
109	High resolution NMR spectroscopy of rat brain in vivo through indirect zero-quantum-coherence detection. Journal of Magnetic Resonance, 2007, 187, 320-326.	2.1	30
110	Effects of continuous hypoxia on energy metabolism in cultured cerebro-cortical neurons. Brain Research, 2008, 1229, 147-154.	2.2	29
111	Determination of the Glutamateâ€"Glutamine Cycling Flux Using Two-Compartment Dynamic Metabolic Modeling is Sensitive to Astroglial Dilution. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 108-118.	4.3	29
112	Functional MRI and neural responses in a rat model of Alzheimer's disease. NeuroImage, 2013, 79, 404-411.	4.2	29
113	Cortical Substrate Oxidation during Hyperketonemia in the Fasted Anesthetized Rat in Vivo. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 2313-2323.	4.3	28
114	Characterization of Kinetic Isotope Effects and Label Loss in Deuterium-Based Isotopic Labeling Studies. ACS Chemical Neuroscience, 2021, 12, 234-243.	3.5	25
115	Quantification of High-Resolution ¹H-[¹³C] NMR Spectra from Rat Brain Extracts. Analytical Chemistry, 2014, 86, 5032-5038.	6.5	24
116	Subanesthetic ketamine reverses neuronal and astroglial metabolic activity deficits in a social defeat model of depression. Journal of Neurochemistry, 2018, 146, 722-734.	3.9	24
117	Glucose sparing by glycogenolysis (GSG) determines the relationship between brain metabolism and neurotransmission. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 844-860.	4.3	24
118	Changes in N-acetylaspartate and myo-inositol detected in the cerebral cortex of hamsters with Creutzfeldt-Jakob disease. Magnetic Resonance Imaging, 1998, 16, 963-968.	1.8	23
119	NMR visibility of deuteriumâ€labeled liver glycogen in vivo. Magnetic Resonance in Medicine, 2021, 86, 62-68.	3.0	22
120	Impaired Glutamatergic Neurotransmission in the Ventromedial Hypothalamus May Contribute to Defective Counterregulation in Recurrently Hypoglycemic Rats. Diabetes, 2017, 66, 1979-1989.	0.6	21
121	Natural abundance 17O NMR spectroscopy of rat brain in vivo. Journal of Magnetic Resonance, 2008, 193, 63-67.	2.1	20
122	Application of multipulse NMR to observe13C-labeled metabolites in biological systems. Magnetic Resonance in Medicine, 1985, 2, 56-64.	3.0	18
123	Hexokinase in astrocytes: kinetic and regulatory properties. Metabolic Brain Disease, 1999, 14, 125-133.	2.9	17
124	Brain regional development of the activity of Î±-ketoglutarate dehydrogenase complex in the rat. Developmental Brain Research, 2000, 125, 139-145.	1.7	17
125	Toward Absolute Quantitation of Bold Functional MRI. Advances in Experimental Medicine and Biology, 1999, 471, 681-689.	1.6	17
126	Differential increase in cerebral cortical glucose oxidative metabolism during rat postnatal development is greater in vivo than in vitro. Brain Research, 2001, 888, 193-202.	2.2	16

#	Article	IF	Citations
127	Effects of Î³â€Aminobutyric acid transporter 1 inhibition by tiagabine on brain glutamate and Î³â€Aminobutyric acid metabolism in the anesthetized rat In vivo. Journal of Neuroscience Research, 2015, 93, 1101-1108.	2.9	16
128	Metabolic underpinnings of activated and deactivated cortical areas in human brain. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 986-1000.	4.3	16
129	Human brain functional MRS reveals interplay of metabolites implicated in neurotransmission and neuroenergetics. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 911-934.	4.3	16
130	Adiabatic RARE imaging. NMR in Biomedicine, 2003, 16, 29-35.	2.8	15
131	Family Psychopathology and Magnitude of Reductions in Occipital Cortex GABA Levels in Panic Disorder. Neuropsychopharmacology, 2004, 29, 639-640.	5.4	14
132	Metabolic products of [2â€¹³C]ethanol in the rat brain after chronic ethanol exposure. Journal of Neurochemistry, 2013, 127, 353-364.	3.9	14
133	Distribution of temperature changes and neurovascular coupling in rat brain following 3,4-methylenedioxymethamphetamine (MDMA, â€œecstasyâ€) exposure. NMR in Biomedicine, 2015, 28, 1257-1266.	2.8	14
134	Cellular Origin of [¹⁸F]FDG-PET Imaging Signals During Ceftriaxone-Stimulated Glutamate Uptake: Astrocytes and Neurons. Neuroscientist, 2018, 24, 316-328.	3.5	13
135	Regional Whole Body Fat Quantification in Mice. Lecture Notes in Computer Science, 2005, 19, 369-380.	1.3	12
136	In vivo MRS and histochemistry of status epilepticusâ€induced hippocampal pathology in a juvenile model of temporal lobe epilepsy. NMR in Biomedicine, 2013, 26, 132-140.	2.8	12
137	The13C isotope and nuclear magnetic resonance: unique tools for the study of brain metabolism. Metabolic Brain Disease, 1996, 11, 283-313.	2.9	11
138	Rates of pyruvate carboxylase, glutamate and GABA neurotransmitter cycling, and glucose oxidation in multiple brain regions of the awake rat using a combination of [2-¹³C]/[1-¹³C]glucose infusion and¹H-[¹³C]NMRex vivo. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 1507-1523.	4.3	11
139	Glycolysis-Citric Acid Cycle Interrelation: A New Approach and Some Insights in Cellular and Subcellular Compartmentation. Developmental Neuroscience, 1993, 15, 181-193.	2.0	10
140	Coupling of Glutamatergic Neurotransmission and Neuronal Glucose Oxidation over the Entire Range of Cerebral Cortex Activity. Annals of the New York Academy of Sciences, 2003, 1003, 452-453.	3.8	10
141	Magnetic resonance spectroscopy in the rodent brain: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4325.	2.8	9
142	Combined H and31P NMR Studies of the Rat Brain in Vivo: Effects of Altered Intracellular pH on Metabolisma. Annals of the New York Academy of Sciences, 1987, 508, 81-88.	3.8	8
143	Continuous-wave near-infrared spectroscopy using pathlength-independent hypoxia normalization. Journal of Biomedical Optics, 2002, 7, 228.	2.6	7
144	Comparison of Glutamate Turnover in Nerve Terminals and Brain Tissue During [1,6-13C2]Glucose Metabolism in Anesthetized Rats. Neurochemical Research, 2017, 42, 173-190.	3.3	7

#	Article	IF	Citations
145	Mapping Cerebral Glutamate 13C Turnover and Oxygen Consumption by in Vivo NMR. Advances in Experimental Medicine and Biology, 2003, 530, 29-39.	1.6	6
146	In Vivo NMR Spectroscopy Studies of Cerebral Metabolism in Rats after Portal-Caval Shunting.. , 1989, , 177-187.		5
147	Glutaminase activity in GLS1 Het mouse brain compared to putative pharmacological inhibition by ebselen using ex vivo MRS. Neurochemistry International, 2019, 129, 104508.	3.8	4
148	Rat Brain Glucose Concentration and Transport Kinetics Determined with 13C Nuclear Magnetic Resonance Spectroscopy. Advances in Experimental Medicine and Biology, 1993, 331, 29-34.	1.6	4
149	Mapping Glutamatergic Activity: Stoichiometric Coupling of Brain Glucose Metabolism and Neurotransmitter Glutamate Cycling. NeuroImage, 1998, 7, S287.	4.2	3
150	Altered hippocampal astroglial metabolism is associated with aging and preserved spatial learning and memory. Neurobiology of Aging, 2021, 102, 188-199.	3.1	3
151	Glioblastoma: Current Chemotherapeutic Status and Need for New Targets and Approaches. , 2011, , .		2
152	Methods | 13C MRS Measurements of in Vivo Rates of the Glutamate/Glutamine and GABA/Glutamine Neurotransmitter Cycles. , 2021, , 688-700.		2
153	â€œWhat to eat or what not to eatâ€”that is still the questionâ€• Reply. Neuro-Oncology, 2017, 19, 596-597.	1.2	1
154	Dominant Events That Modulate Mass Transfer Coefficient of Oxygen in Cerebral Cortex. Advances in Experimental Medicine and Biology, 2003, 530, 401-411.	1.6	1
155	Compartmental Analysis of Metabolism by 13C Magnetic Resonance Spectroscopy. Neuromethods, 2014, , 293-339.	0.3	1
156	Cerebral Metabolic Studies in vivo by Combined 1H/31P and 1H/13C NMR Spectroscopic Methods. , 1993, 57, 9-20.		1
157	AplicaÃ§Ãµes da ressonÃ¢ncia magnÃ©tica para medidas espectroscÃ³picas da neurotransmissÃ£o. Revista Brasileira De Psiquiatria, 2001, 23, 6-10.	1.7	1
158	NMR Studies of the Metabolism and Energetics of GABA Neurotransmitter Pathways. , 2005, , 99-110.		0
159	Magnetic Resonance Spectroscopy in Neuroenergetics and Neurotransmission. , 2014, , 274-288.		0
160	2235 15N-Leucine transport across the blood brain barrier is significantly impaired in the glutamine synthetase-inhibited brain. Journal of Clinical and Translational Science, 2018, 2, 1-1.	0.6	0