D S Fahmeed Hyder

List of Publications by Year
in descending order

227	14,625	17429	23514
papers	citations	63 h-index	111 g-index

235	235	235	13662
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Engineering of human brain organoids with a functional vascular-like system. Nature Methods, 2019, 16, 1169-1175.	9.0	551
2	Reduced Cortical Î³-Aminobutyric Acid Levels in Depressed Patients Determined by Proton Magnetic Resonance Spectroscopy. Archives of General Psychiatry, 1999, 56, 1043.	13.8	547
3	Energetic basis of brain activity: implications for neuroimaging. Trends in Neurosciences, 2004, 27, 489-495.	4.2	511
4	Functional magnetic resonance imaging of human prefrontal cortex activation during a spatial working memory task.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 8690-8694.	3.3	431
5	Increased Cortical GABA Concentrations in Depressed Patients Receiving ECT. American Journal of Psychiatry, 2003, 160, 577-579.	4.0	414
6	Neuronalâ€“Glial Glucose Oxidation and Glutamatergicâ€“GABAergic Function. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 865-877.	2.4	365
7	Dynamic mapping of the human visual cortex by high-speed magnetic resonance imaging.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 11069-11073.	3.3	347
8	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.	3.3	322
9	In vivo NMR Studies of the Glutamate Neurotransmitter Flux and Neuroenergetics: Implications for Brain Function. Annual Review of Physiology, 2003, 65, 401-427.	5.6	310
10	Cerebral energetics and the glycogen shunt: Neurochemical basis of functional imaging. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 6417-6422.	3.3	272
11	FMRI of the prefrontal cortex during overt verbal fluency. NeuroReport, 1997, 8, 561-565.	0.6	234
12	Negative BOLD with Large Increases in Neuronal Activity. Cerebral Cortex, 2008, 18, 1814-1827.	1.6	207
13	Cortical energy demands of signaling and nonsignaling components in brain are conserved across mammalian species and activity levels. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3549-3554.	3.3	204
14	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.	1.8	201
15	Intranasal epidermal growth factor treatment rescues neonatal brain injury. Nature, 2014, 506, 230-234.	13.7	198
16	Total neuroenergetics support localized brain activity: Implications for the interpretation of fMRI. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10771-10776.	3.3	190
17	Quantitative functional imaging of the brain: towards mapping neuronal activity by BOLD fMRI. NMR in Biomedicine, 2001, 14, 413-431.	1.6	188
18	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.	3.3	185

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19	A model for the regulation of cerebral oxygen delivery. Journal of Applied Physiology, 1998, 85, 554-564.	1.2	184
20	Odor maps of aldehydes and esters revealed by functional MRI in the glomerular layer of the mouse olfactory bulb. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11029-11034.	3.3	179
21	Simultaneous activation of mouse main and accessory olfactory bulbs by odors or pheromones. Journal of Comparative Neurology, 2005, 489, 491-500.	0.9	179
22	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.	3.3	160
23	Dynamic fMRI and EEG Recordings during Spike-Wave Seizures and Generalized Tonic-Clonic Seizures in WAG/Rij Rats. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 589-599.	2.4	157
24	Dynamic Magnetic Resonance Imaging of the Rat Brain during Forepaw Stimulation. Journal of Cerebral Blood Flow and Metabolism, 1994, 14, 649-655.	2.4	156
25	Baseline brain energy supports the state of consciousness. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11096-11101.	3.3	135
26	Remote Effects of Focal Hippocampal Seizures on the Rat Neocortex. Journal of Neuroscience, 2008, 28, 9066-9081.	1.7	133
27	Activation of single whisker barrel in rat brain localized by functional magnetic resonance imaging.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 475-478.	3.3	132
28	Erythrocyte efferocytosis modulates macrophages towards recovery after intracerebral hemorrhage. Journal of Clinical Investigation, 2017, 128, 607-624.	3.9	132
29	Dynamic mapping at the laminar level of odor-elicited responses in rat olfactory bulb by functional MRI. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 7715-7720.	3.3	131
30	Evaluating the gray and white matter energy budgets of human brain function. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 1339-1353.	2.4	131
31	Aspm knockout ferret reveals an evolutionary mechanism governing cerebral cortical size. Nature, 2018, 556, 370-375.	13.7	127
32	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.	2.4	122
33	Energetics of neuronal signaling and fMRI activity. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20546-20551.	3.3	121
34	Assessment and discrimination of odor stimuli in rat olfactory bulb by dynamic functional MRI. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 10601-10606.	3.3	117
35	Lactate efflux and the neuroenergetic basis of brain function. NMR in Biomedicine, 2001, 14, 389-396.	1.6	116
36	Where fMRI and Electrophysiology Agree to Disagree: Corticothalamic and Striatal Activity Patterns in the WAG/Rij Rat. Journal of Neuroscience, 2011, 31, 15053-15064.	1.7	115

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37	Simultaneous cortex-wide fluorescence Ca2+ imaging and whole-brain fMRI. Nature Methods, 2020, 17, 1262-1271.	9.0	111
38	Cortical Deactivation Induced by Subcortical Network Dysfunction in Limbic Seizures. Journal of Neuroscience, 2009, 29, 13006-13018.	1.7	110
39	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.	2.4	104
40	Effects of Gabapentin on Brain GABA, Homocarnosine, and Pyrrolidinone in Epilepsy Patients. Epilepsia, 2000, 41, 675-680.	2.6	104
41	Consequences of Intraventricular Hemorrhage in a Rabbit Pup Model. Stroke, 2009, 40, 3369-3377.	1.0	103
42	Glutamatergic Function in the Resting Awake Human Brain is Supported by Uniformly High Oxidative Energy. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 339-347.	2.4	101
43	Decreased Subcortical Cholinergic Arousal in Focal Seizures. Neuron, 2015, 85, 561-572.	3.8	99
44	Stimulated changes in localized cerebral energy consumption under anesthesia. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 3245-3250.	3.3	95
45	Dynamics of Changes in Blood Flow, Volume, and Oxygenation: Implications for Dynamic Functional Magnetic Resonance Imaging Calibration. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 690-696.	2.4	94
46	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.	2.4	92
47	Amygdala hyper-connectivity in a mouse model of unpredictable early life stress. Translational Psychiatry, 2018, 8, 49.	2.4	87
48	Manganese Ferrite Nanoparticles (MnFe2O4): Size Dependence for Hyperthermia and Negative/Positive Contrast Enhancement in MRI. Nanomaterials, 2020, 10, 2297.	1.9	83
49	Functional MRI bold signal coincides with electrical activity in the rat whisker barrels. Magnetic Resonance in Medicine, 1997, 38, 874-877.	1.9	82
50	Quantitative fMRI and oxidative neuroenergetics. NeuroImage, 2012, 62, 985-994.	2.1	81
51	DTI abnormalities in anterior corpus callosum of rats with spikeâ€“wave epilepsy. NeuroImage, 2009, 47, 459-466.	2.1	80
52	Lactate preserves neuronal metabolism and function following antecedent recurrent hypoglycemia. Journal of Clinical Investigation, 2013, 123, 1988-1998.	3.9	80
53	Topiramate Rapidly Raises Brain GABA in Epilepsyâ€ƒPatients. Epilepsia, 2001, 42, 543-548.	2.6	78
54	Convulsive seizures from experimental focal cortical dysplasia occur independently of cell misplacement. Nature Communications, 2016, 7, 11753.	5.8	78

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55	An epigenetic mechanism mediates developmental nicotine effects on neuronal structure and behavior. Nature Neuroscience, 2016, 19, 905-914.	7.1	78
56	Uniform distributions of glucose oxidation and oxygen extraction in gray matter of normal human brain: No evidence of regional differences of aerobic glycolysis. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 903-916.	2.4	74
57	"Willed action": A functional MRI study of the human prefrontal cortex during a sensorimotor task. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 6989-6994.	3.3	73
58	Biophysical basis of brain activity: implications for neuroimaging. Quarterly Reviews of Biophysics, 2002, 35, 287-325.	2.4	72
59	Maternal separation with early weaning: A rodent model providing novel insights into neglect associated developmental deficits. Development and Psychopathology, 2012, 24, 1401-1416.	1.4	72
60	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.	0.6	72
61	The Whole-Brain â€œGlobalâ€•Signal from Resting State fMRI as a Potential Biomarker of Quantitative State Changes in Glucose Metabolism. Brain Connectivity, 2016, 6, 435-447.	0.8	70
62	Brain temperature and pH measured by ¹H chemical shift imaging of a thulium agent. NMR in Biomedicine, 2009, 22, 229-239.	1.6	69
63	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.	0.9	68
64	A BOLD search for baseline. NeuroImage, 2007, 36, 277-281.	2.1	67
65	Mapping at glomerular resolution: fMRI of rat olfactory bulb. Magnetic Resonance in Medicine, 2002, 48, 570-576.	1.9	66
66	Relative Changes in Cerebral Blood Flow and Neuronal Activity in Local Microdomains during Generalized Seizures. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1057-1068.	2.4	64
67	Neural Progenitor Cells Regulate Capillary Blood Flow in the Postnatal Subventricular Zone. Journal of Neuroscience, 2012, 32, 16435-16448.	1.7	64
68	Oxidative Neuroenergetics in Event-Related Paradigms. Journal of Neuroscience, 2009, 29, 1707-1718.	1.7	62
69	Brain temperature by Biosensor Imaging of Redundant Deviation in Shifts (BIRDS): comparison between TmDOTP^{5â^’}and TmDOTMA^{â^’}. NMR in Biomedicine, 2010, 23, 277-285.	1.6	62
70	Diffusion Tensor Imaging as a Predictor of Locomotor Function after Experimental Spinal Cord Injury and Recovery. Journal of Neurotrauma, 2014, 31, 1362-1373.	1.7	62
71	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.	1.6	61
72	Vigabatrin increases human brain homocarnosine and improves seizure control. Annals of Neurology, 1998, 44, 948-952.	2.8	60

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73	Regional Temperature Changes in the Brain during Somatosensory Stimulation. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 68-78.	2.4	60
74	Focal BOLD fMRI changes in bicuculline-induced tonicâ€“clonic seizures in the rat. NeuroImage, 2010, 50, 902-909.	2.1	60
75	Caloric Restriction Impedes Age-Related Decline of Mitochondrial Function and Neuronal Activity. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1440-1443.	2.4	60
76	Triptolide reduces cyst formation in a neonatal to adult transition Pkd1 model of ADPKD. Nephrology Dialysis Transplantation, 2010, 25, 2187-2194.	0.4	58
77	Brain temperature measured by 1H-NMR in conjunction with a lanthanide complex. Journal of Applied Physiology, 2003, 94, 1641-1649.	1.2	57
78	Quantitative basis for neuroimaging of cortical laminae with calibrated functional MRI. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15115-15120.	3.3	57
79	Renal plasticity revealed through reversal of polycystic kidney disease in mice. Nature Genetics, 2021, 53, 1649-1663.	9.4	57
80	Delivery of mesenchymal stem cells in biomimetic engineered scaffolds promotes healing of diabetic ulcers. Regenerative Medicine, 2016, 11, 245-260.	0.8	55
81	Neuroimaging With Calibrated fMRI. Stroke, 2004, 35, 2635-2641.	1.0	54
82	Neurodevelopment of C57B/L6 mouse brain assessed byin vivo diffusion tensor imaging. NMR in Biomedicine, 2007, 20, 375-382.	1.6	54
83	Decreased Resting Functional Connectivity after Traumatic Brain Injury in the Rat. PLoS ONE, 2014, 9, e95280.	1.1	54
84	The micro-architecture of the cerebral cortex: Functional neuroimaging models and metabolism. NeuroImage, 2008, 40, 1436-1459.	2.1	53
85	Pitfalls in fractal time series analysis: fMRI BOLD as an exemplary case. Frontiers in Physiology, 2012, 3, 417.	1.3	52
86	Imaging the intratumoralâ€“peritumoral extracellular pH gradient of gliomas. NMR in Biomedicine, 2016, 29, 309-319.	1.6	52
87	Acute Effects of Vigabatrin on Brain GABA and Homocarnosine in Patients with Complex Partial Seizures. Epilepsia, 1999, 40, 958-964.	2.6	50
88	In vivo carbon-edited detection with proton echo-planar spectroscopic imaging (ICED PEPSI): [3,4-13CH2]glutamate/glutamine tomography in rat brain. Magnetic Resonance in Medicine, 1999, 42, 997-1003.	1.9	49
89	Cerebral metabolism and consciousness. Comptes Rendus - Biologies, 2003, 326, 253-273.	0.1	49
90	Hypoxic Injury during Neonatal Development in Murine Brain: Correlation between In Vivo DTI Findings and Behavioral Assessment. Cerebral Cortex, 2009, 19, 2891-2901.	1.6	49

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91	Anti-epileptogenesis: Electrophysiology, diffusion tensor imaging and behavior in a genetic absence model. Neurobiology of Disease, 2013, 60, 126-138.	2.1	49
92	Fractal analysis of spontaneous fluctuations of the BOLD signal in rat brain. NeuroImage, 2011, 58, 1060-1069.	2.1	48
93	Afatinib plus Cetuximab Delays Resistance Compared to Single-Agent Erlotinib or Afatinib in Mouse Models of TKI-NaÃ¯ve EGFR L858R-Induced Lung Adenocarcinoma. Clinical Cancer Research, 2016, 22, 426-435.	3.2	46
94	Lamotrigine suppresses neurophysiological responses to somatosensory stimulation in the rodent. NeuroImage, 2006, 29, 216-224.	2.1	45
95	Frequencyâ€dependent tactile responses in rat brain measured by functional MRI. NMR in Biomedicine, 2008, 21, 410-416.	1.6	45
96	Applications of nuclear magnetic cross-relaxation spectroscopy to tissues. Magnetic Resonance in Medicine, 1991, 17, 452-459.	1.9	44
97	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.	2.4	44
98	Imaging the delivery of brain-penetrating PLGA nanoparticles in the brain using magnetic resonance. Journal of Neuro-Oncology, 2015, 121, 441-449.	1.4	44
99	A Multiparametric Assessment of Oxygen Efflux from the Brain. Journal of Cerebral Blood Flow and Metabolism, 2006, 26, 79-91.	2.4	43
100	Neurophysiology of functional imaging. NeuroImage, 2009, 45, 1047-1054.	2.1	43
101	Temozolomide arrests glioma growth and normalizes intratumoral extracellular pH. Scientific Reports, 2017, 7, 7865.	1.6	43
102	Insights from Neuroenergetics into the Interpretation of Functional Neuroimaging: An Alternative Empirical Model for Studying the Brain's Support of Behavior. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1721-1735.	2.4	41
103	Advances in Imaging Brain Metabolism. Annual Review of Biomedical Engineering, 2017, 19, 485-515.	5.7	40
104	Adaptation in the rodent olfactory bulb measured by fMRI. Magnetic Resonance in Medicine, 2005, 54, 443-448.	1.9	39
105	Increased resting functional connectivity in spikeâ€wave epilepsy in <scp>WAG</scp>/<scp>R</scp>ij rats. Epilepsia, 2013, 54, 1214-1222.	2.6	39
106	In vivo threeâ€dimensional molecular imaging with Biosensor Imaging of Redundant Deviation in Shifts (BIRDS) at high spatiotemporal resolution. NMR in Biomedicine, 2013, 26, 1589-1595.	1.6	39
107	Selective deletion of glutamine synthetase in the mouse cerebral cortex induces glial dysfunction and vascular impairment that precede epilepsy and neurodegeneration. Neurochemistry International, 2019, 123, 22-33.	1.9	39
108	Effects of Vigabatrin on the GABAergic System as Determined by [123I]Iomazenil SPECT and GABA MRS. Epilepsia, 1999, 40, 1433-1438.	2.6	38

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109	Mitochondrial Calcium Uptake Capacity Modulates Neocortical Excitability. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 1115-1126.	2.4	38
110	Neuronal correlate of BOLD signal fluctuations at rest: Err on the side of the baseline. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10773-10774.	3.3	37
111	Cerebral oxygen demand for shortâ€lived and steadyâ€state events. Journal of Neurochemistry, 2009, 109, 73-79.	2.1	35
112	Localized1H NMR measurements of 2-pyrrolidinone in human brain in vivo. Magnetic Resonance in Medicine, 1999, 41, 889-896.	1.9	34
113	Reproducibility of odor maps by fMRI in rodents. NeuroImage, 2006, 31, 1238-1246.	2.1	34
114	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.	1.6	34
115	Molecular Imaging of Extracellular Tumor pH to Reveal Effects of Locoregional Therapy on Liver Cancer Microenvironment. Clinical Cancer Research, 2020, 26, 428-438.	3.2	34
116	Excitatory Synaptic Drive and Feedforward Inhibition in the Hippocampal CA3 Circuit Are Regulated by SynCAM 1. Journal of Neuroscience, 2016, 36, 7464-7475.	1.7	32
117	Image reconstruction of sequentially sampled echo-planar data. Magnetic Resonance Imaging, 1995, 13, 97-103.	1.0	31
118	Physiology of Functional Magnetic Resonance Imaging. , 2006, 124, 175-195.		31
119	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
120	Lanthanide ion (III) complexes of 1,4,7,10â€tetraazacyclododecaneâ€1,4,7,10â€tetraaminophosphonate for dual biosensing of pH with chemical exchange saturation transfer (CEST) and biosensor imaging of redundant deviation in shifts (BIRDS). Contrast Media and Molecular Imaging, 2015, 10, 51-58.	0.4	31
121	Towards longitudinal mapping of extracellular pH in gliomas. NMR in Biomedicine, 2016, 29, 1364-1372.	1.6	31
122	Network evolution in mesial temporal lobe epilepsy revealed by diffusion tensor imaging. Epilepsia, 2017, 58, 824-834.	2.6	31
123	DYNAmic Multiâ€coil TEchnique (DYNAMITE) shimming of the rat brain at 11.7â€‰T. NMR in Biomedicine, 2014, 27, 897-906.	1.6	30
124	Extracellular pH mapping of liver cancer on a clinical 3T MRI scanner. Magnetic Resonance in Medicine, 2020, 83, 1553-1564.	1.9	30
125	Multimodal Measurements of Blood Plasma and Red Blood Cell Volumes during Functional Brain Activation. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 19-24.	2.4	29
126	A lanthanide complex with dual biosensing properties: CEST (chemical exchange saturation transfer) and BIRDS (biosensor imaging of redundant deviation in shifts) with europium DOTAâ€“tetraglycinate. NMR in Biomedicine, 2011, 24, 1216-1225.	1.6	29

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127	Functional MRI and neural responses in a rat model of Alzheimer's disease. NeuroImage, 2013, 79, 404-411.	2.1	29
128	GABA Changes with Vigabatrin in the Developing Human Brain. Epilepsia, 1999, 40, 462-466.	2.6	28
129	Quantitative multi-modal functional MRI with blood oxygenation level dependent exponential decays adjusted for flow attenuated inversion recovery (BOLDED AFFAIR). Magnetic Resonance Imaging, 2000, 18, 227-235.	1.0	28
130	Analysis of Time and Space Invariance of BOLD Responses in the Rat Visual System. Cerebral Cortex, 2013, 23, 210-222.	1.6	28
131	Informatics Approaches to Functional MRI Odor Mapping of the Rodent Olfactory Bulb: OdorMapBuilder and OdorMapDB. Neuroinformatics, 2004, 2, 003-018.	1.5	27
132	S Phase Entry of Neural Progenitor Cells Correlates with Increased Blood Flow in the Young Subventricular Zone. PLoS ONE, 2012, 7, e31960.	1.1	26
133	Brain region and activity-dependent properties of M for calibrated fMRI. NeuroImage, 2016, 125, 848-856.	2.1	26
134	APOE genotype-dependent pharmacogenetic responses to rapamycin for preventing Alzheimer's disease. Neurobiology of Disease, 2020, 139, 104834.	2.1	26
135	Dynamic Imaging of Brain Function. Methods in Molecular Biology, 2009, 489, 3-21.	0.4	26
136	Tactile and Non-tactile Sensory Paradigms for fMRI and Neurophysiologic Studies in Rodents. Methods in Molecular Biology, 2009, 489, 213-242.	0.4	26
137	Dendrimer-Based Responsive MRI Contrast Agents (G1â€“G4) for Biosensor Imaging of Redundant Deviation in Shifts (BIRDS). Bioconjugate Chemistry, 2015, 26, 2315-2323.	1.8	25
138	Mitochondrial Functional State Impacts Spontaneous Neocortical Activity and Resting State fMRI. PLoS ONE, 2013, 8, e63317.	1.1	24
139	Metabolic demands of neural-hemodynamic associated and disassociated areas in brain. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1695-1707.	2.4	24
140	Quantitative Î² mapping for calibrated fMRI. NeuroImage, 2016, 126, 219-228.	2.1	24
141	Flow-metabolism uncoupling in patients with asymptomatic unilateral carotid artery stenosis assessed by multi-modal magnetic resonance imaging. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 2132-2143.	2.4	24
142	Functional MRS with J-edited lactate in human motor cortex at 4â€¯T. NeuroImage, 2019, 184, 101-108.	2.1	24
143	Glucose sparing by glycogenolysis (GSG) determines the relationship between brain metabolism and neurotransmission. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 844-860.	2.4	24
144	Dynamic Imaging of Perfusion and Oxygenation by Functional Magnetic Resonance Imaging. Journal of Cerebral Blood Flow and Metabolism, 2004, 24, 1369-1381.	2.4	23

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145	Hemodynamic impairments within individual watershed areas in asymptomatic carotid artery stenosis by multimodal MRI. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 380-396.	2.4	23
146	A novel approach for selective brain cooling: implications for hypercapnia and seizure activity. Intensive Care Medicine, 2004, 30, 1829-1833.	3.9	22
147	Neuroanatomical changes in a mouse model of early life neglect. Brain Structure and Function, 2012, 217, 459-472.	1.2	22
148	Improved specific loss power on cancer cells by hyperthermia and MRI contrast of hydrophilic Fe_xCo_{1â€x}Fe₂O₄ nanoensembles. Contrast Media and Molecular Imaging, 2016, 11, 514-526.	0.4	22
149	Hypofrontality and Posterior Hyperactivity in Early Schizophrenia: Imaging and Behavior in a Preclinical Model. Biological Psychiatry, 2017, 81, 503-513.	0.7	22
150	Brain Tumor Diagnostics and Therapeutics with Superparamagnetic Ferrite Nanoparticles. Contrast Media and Molecular Imaging, 2017, 2017, 1-17.	0.4	22
151	The Stroke Preclinical Assessment Network: Rationale, Design, Feasibility, and Stage 1 Results. Stroke, 2022, 53, 1802-1812.	1.0	22
152	Characterizing white matter fiber orientation effects on multi-parametric quantitative BOLD assessment of oxygen extraction fraction. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 760-774.	2.4	21
153	Characterization of a lanthanide complex encapsulated with MRI contrast agents into liposomes for biosensor imaging of redundant deviation in shifts (BIRDS). Journal of Biological Inorganic Chemistry, 2014, 19, 1385-1398.	1.1	20
154	Direct measurements of longitudinal relaxation and magnetization transfer in heterogeneous systems. Journal of Magnetic Resonance, 1990, 86, 416-419.	0.5	19
155	Comparison of glomerular activity patterns by fMRI and wide-field calcium imaging: Implications for principles underlying odor mapping. NeuroImage, 2016, 126, 208-218.	2.1	19
156	Molecular MRI of the Immuno-Metabolic Interplay in a Rabbit Liver Tumor Model: A Biomarker for Resistance Mechanisms in Tumor-targeted Therapy?. Radiology, 2020, 296, 575-583.	3.6	19
157	Orthonasal versus retronasal glomerular activity in rat olfactory bulb by fMRI. NeuroImage, 2020, 212, 116664.	2.1	19
158	Brain-targeting, acid-responsive antioxidant nanoparticles for stroke treatment and drug delivery. Bioactive Materials, 2022, 16, 57-65.	8.6	18
159	Evidence for the importance of measuring total brain activity in neuroimaging. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5475-5476.	3.3	17
160	Toward Absolute Quantitation of Bold Functional MRI. Advances in Experimental Medicine and Biology, 1999, 471, 681-689.	0.8	17
161	Effects of Tissue-Specific Functional Magnetic Resonance Imaging Signal Regression on Resting-State Functional Connectivity. Brain Connectivity, 2017, 7, 482-490.	0.8	16
162	Mapping Extracellular pH of Gliomas in Presence of Superparamagnetic Nanoparticles: Towards Imaging the Distribution of Drug-Containing Nanoparticles and Their Curative Effect on the Tumor Microenvironment. Contrast Media and Molecular Imaging, 2017, 2017, 1-15.	0.4	16

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163	Metabolic underpinnings of activated and deactivated cortical areas in human brain. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 986-1000.	2.4	16
164	Human brain functional MRS reveals interplay of metabolites implicated in neurotransmission and neuroenergetics. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 911-934.	2.4	16
165	Brain Homocarnosine and Seizure Control of Patients Taking Gabapentin or Topiramate. Epilepsia, 2006, 47, 495-498.	2.6	15
166	Kaempferol Treatment after Traumatic Brain Injury during Early Development Mitigates Brain Parenchymal Microstructure and Neural Functional Connectivity Deterioration at Adolescence. Journal of Neurotrauma, 2020, 37, 966-974.	1.7	15
167	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.	1.6	14
168	Role of mitochondrial calcium uptake homeostasis in resting state fMRI brain networks. NMR in Biomedicine, 2015, 28, 1579-1588.	1.6	14
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