junzhong Xu

List of Publications by Year
in descending order

68 papers	2,711 citations	172386 29 h-index	197736 49 g-index
68 all docs	68 docs citations	68 times ranked	2136 citing authors

#	Article	IF	Citations
1	InverseZ-spectrum analysis for spillover-, MT-, andT₁-corrected steady-state pulsed CEST-MRI - application to pH-weighted MRI of acute stroke. NMR in Biomedicine, 2014, 27, 240-252.	1.6	234
2	On the origins of chemical exchange saturation transfer (CEST) contrast in tumors at 9.4â€‰T. NMR in Biomedicine, 2014, 27, 406-416.	1.6	133
3	Characterization of tissue structure at varying length scales using temporal diffusion spectroscopy. NMR in Biomedicine, 2010, 23, 745-756.	1.6	131
4	A combined analytical solution for chemical exchange saturation transfer and semiâ€solid magnetization transfer. NMR in Biomedicine, 2015, 28, 217-230.	1.6	111
5	Mapping mean axon diameter and axonal volume fraction by MRI using temporal diffusion spectroscopy. NeuroImage, 2014, 103, 10-19.	2.1	109
6	A new method for detecting exchanging amide protons using chemical exchange rotation transfer. Magnetic Resonance in Medicine, 2013, 69, 637-647.	1.9	105
7	Accuracy in the quantification of chemical exchange saturation transfer (CEST) and relayed nuclear Overhauser enhancement (rNOE) saturation transfer effects. NMR in Biomedicine, 2017, 30, e3716.	1.6	90
8	Sensitivity of MR diffusion measurements to variations in intracellular structure: Effects of nuclear size. Magnetic Resonance in Medicine, 2009, 61, 828-833.	1.9	86
9	A new NOE-mediated MT signal at around â^'1.6ppm for detecting ischemic stroke in rat brain. Magnetic Resonance Imaging, 2016, 34, 1100-1106.	1.0	84
10	Application and evaluation of NODDI in the cervical spinal cord of multiple sclerosis patients. NeuroImage: Clinical, 2017, 15, 333-342.	1.4	84
11	The microstructural correlates of T₁ in white matter. Magnetic Resonance in Medicine, 2016, 75, 1341-1345.	1.9	74
12	In vivo imaging of cancer cell size and cellularity using temporal diffusion spectroscopy. Magnetic Resonance in Medicine, 2017, 78, 156-164.	1.9	71
13	Quantification of cell size using temporal diffusion spectroscopy. Magnetic Resonance in Medicine, 2016, 75, 1076-1085.	1.9	66
14	Assignment of the molecular origins of CEST signals at 2â€‰ppm in rat brain. Magnetic Resonance in Medicine, 2017, 78, 881-887.	1.9	63
15	Imaging amide proton transfer and nuclear overhauser enhancement using chemical exchange rotation transfer (CERT). Magnetic Resonance in Medicine, 2014, 72, 471-476.	1.9	62
16	Numerical study of water diffusion in biological tissues using an improved finite difference method. Physics in Medicine and Biology, 2007, 52, N111-N126.	1.6	57
17	Optimized inversion recovery sequences for quantitative T₁ and magnetization transfer imaging. Magnetic Resonance in Medicine, 2010, 64, 491-500.	1.9	57
18	Quantitative characterization of tissue microstructure with temporal diffusion spectroscopy. Journal of Magnetic Resonance, 2009, 200, 189-197.	1.2	54

#	ARTICLE	IF	CITATIONS
19	MR imaging of a novel NOE-mediated magnetization transfer with water in rat brain at 9.4â€‰T. Magnetic Resonance in Medicine, 2017, 78, 588-597.	1.9	48
20	Imaging of amide proton transfer and nuclear Overhauser enhancement in ischemic stroke with corrections for competing effects. NMR in Biomedicine, 2015, 28, 200-209.	1.6	44
21	Magnetic resonance imaging of mean cell size in human breast tumors. Magnetic Resonance in Medicine, 2020, 83, 2002-2014.	1.9	43
22	Impact of transcytolemmal water exchange on estimates of tissue microstructural properties derived from diffusion MRI. Magnetic Resonance in Medicine, 2017, 77, 2239-2249.	1.9	41
23	Dependence of temporal diffusion spectra on microstructural properties of biological tissues. Magnetic Resonance Imaging, 2011, 29, 380-390.	1.0	40
24	Characterizing Tumor Response to Chemotherapy at Various Length Scales Using Temporal Diffusion Spectroscopy. PLoS ONE, 2012, 7, e41714.	1.1	40
25	Fast and robust measurement of microstructural dimensions using temporal diffusion spectroscopy. Journal of Magnetic Resonance, 2014, 242, 4-9.	1.2	39
26	Time-Dependent Influence of Cell Membrane Permeability on MR Diffusion Measurements. Magnetic Resonance in Medicine, 2016, 75, 1927-1934.	1.9	38
27	Measurement of regional cerebral glucose uptake by magnetic resonance spin-lock imaging. Magnetic Resonance Imaging, 2014, 32, 1078-1084.	1.0	37
28	Influence of cell cycle phase on apparent diffusion coefficient in synchronized cells detected using temporal diffusion spectroscopy. Magnetic Resonance in Medicine, 2011, 65, 920-926.	1.9	32
29	CEST imaging of fast exchanging amine pools with corrections for competing effects at 9.4ÂT. NMR in Biomedicine, 2017, 30, e3715.	1.6	31
30	Quantitative magnetization transfer imaging of rodent glioma using selective inversion recovery. NMR in Biomedicine, 2014, 27, 253-260.	1.6	30
31	Assessing tumor cytoarchitecture using multiecho DSCâ€MRI derived measures of the transverse relaxivity at tracer equilibrium (TRATE). Magnetic Resonance in Medicine, 2015, 74, 772-784.	1.9	30
32	Effects of intracellular organelles on the apparent diffusion coefficient of water molecules in cultured human embryonic kidney cells. Magnetic Resonance in Medicine, 2011, 65, 796-801.	1.9	28
33	Increased CEST specificity for amide and fastâ€exchanging amine protons using exchangeâ€dependent relaxation rate. NMR in Biomedicine, 2018, 31, e3863.	1.6	27
34	Advanced Multicompartment Diffusion MRI Models and Their Application in Multiple Sclerosis. American Journal of Neuroradiology, 2020, 41, 751-757.	1.2	27
35	Evaluation and comparison of diffusion MR methods for measuring apparent transcytolemmal water exchange rate constant. Journal of Magnetic Resonance, 2017, 275, 29-37.	1.2	25
36	Assessment of unilateral ureter obstruction with multiâ€parametric MRI. Magnetic Resonance in Medicine, 2018, 79, 2216-2227.	1.9	25

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37	MRI of tumor T cell infiltration in response to checkpoint inhibitor therapy. , 2020, 8, e000328.		25
38	Fast and simplified mapping of mean axon diameter using temporal diffusion spectroscopy. NMR in Biomedicine, 2016, 29, 400-410.	1.6	24
39	Translating preclinical MRI methods to clinical oncology. Journal of Magnetic Resonance Imaging, 2019, 50, 1377-1392.	1.9	24
40	Multiâ€compartmental diffusion characterization of the human cervical spinal cord in vivo using the spherical mean technique. NMR in Biomedicine, 2018, 31, e3894.	1.6	21
41	An Efficient Computational Approach to Characterize DSC-MRI Signals Arising from Three-Dimensional Heterogeneous Tissue Structures. PLoS ONE, 2014, 9, e84764.	1.1	21
42	Early Detection of Treatment-Induced Mitotic Arrest Using Temporal Diffusion Magnetic Resonance Spectroscopy. Neoplasia, 2016, 18, 387-397.	2.3	20
43	Probing neural tissues at small scales: Recent progress of oscillating gradient spin echo (OGSE) neuroimaging in humans. Journal of Neuroscience Methods, 2021, 349, 109024.	1.3	19
44	Measurement of APT using a combined CERT-AREX approach with varying duty cycles. Magnetic Resonance Imaging, 2017, 42, 22-31.	1.0	18
45	Influence of water compartmentation and heterogeneous relaxation on quantitative magnetization transfer imaging in rodent brain tumors. Magnetic Resonance in Medicine, 2016, 76, 635-644.	1.9	17
46	Probing axons using multiâ€compartmental diffusion in multiple sclerosis. Annals of Clinical and Translational Neurology, 2019, 6, 1595-1605.	1.7	17
47	In vivo magnetic resonance imaging of treatment-induced apoptosis. Scientific Reports, 2019, 9, 9540.	1.6	17
48	A simple estimate of axon size with diffusion MRI. NeuroImage, 2021, 227, 117619.	2.1	17
49	R₁correction in amide proton transfer imaging: indication of the influence of transcytolemmal water exchange on CEST measurements. NMR in Biomedicine, 2015, 28, 1655-1662.	1.6	16
50	Selective inversion recovery quantitative magnetization transfer imaging: Toward a 3 T clinical application in multiple sclerosis. Multiple Sclerosis Journal, 2020, 26, 457-467.	1.4	16
51	Relayed nuclear Overhauser enhancement sensitivity to membrane Cho phospholipids. Magnetic Resonance in Medicine, 2020, 84, 1961-1976.	1.9	16
52	Spinâ€lock imaging of 3â€oâ€methylâ€<scp>D</scp> glucose (3o<scp>MG</scp>) in brain tumors. Magnetic Resonance in Medicine, 2018, 80, 1110-1117.	1.9	15
53	Quantitative temporal diffusion spectroscopy as an early imaging biomarker of radiation therapeutic response in gliomas: A preclinical proof of concept. Advances in Radiation Oncology, 2019, 4, 367-376.	0.6	14
54	Rapid whole-brain quantitative magnetization transfer imaging using 3D selective inversion recovery sequences. Magnetic Resonance Imaging, 2020, 68, 66-74.	1.0	12

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55	Mapping hepatocyte size in vivo using temporal diffusion spectroscopy MRI. Magnetic Resonance in Medicine, 2020, 84, 2671-2683.	1.9	12
56	MRIâ€cytometry: Mapping nonparametric cell size distributions using diffusion MRI. Magnetic Resonance in Medicine, 2021, 85, 748-761.	1.9	12
57	Perilesional neurodegenerative injury in multiple sclerosis: Relation to focal lesions and impact on disability. Multiple Sclerosis and Related Disorders, 2021, 49, 102738.	0.9	10
58	MR cell size imaging with temporal diffusion spectroscopy. Magnetic Resonance Imaging, 2021, 77, 109-123.	1.0	9
59	Structural information revealed by the dispersion of ADC with frequency. Magnetic Resonance Imaging, 2015, 33, 1083-1090.	1.0	8
60	A comparative assessment of preclinical chemotherapeutic response of tumors using quantitative non-Gaussian diffusion MRI. Magnetic Resonance Imaging, 2017, 37, 195-202.	1.0	8
61	Optimization and numerical evaluation of multi-compartment diffusion MRI using the spherical mean technique for practical multiple sclerosis imaging. Magnetic Resonance Imaging, 2020, 74, 56-63.	1.0	8
62	â€œMolecularâ€•MR imaging at high fields. Magnetic Resonance Imaging, 2017, 38, 95-100.	1.0	6
63	Improving MR cell size imaging by inclusion of transcytolemmal water exchange. NMR in Biomedicine, 2022, 35, .	1.6	5
64	Disposable pointâ€ofâ€care portable perfusion phantom for quantitative DCEâ€MRI. Medical Physics, 2022, 49, 271-281.	1.6	3
65	Assessing brain injury topographically using MR neurite orientation dispersion and density imaging in multiple sclerosis. Journal of Neuroimaging, 2021, 31, 1003-1013.	1.0	2
66	Transcallosal and Corticospinal White Matter Disease and Its Association With Motor Impairment in Multiple Sclerosis. Frontiers in Neurology, 0, 13, .	1.1	2
67	Mapping pH using stimulated echoes formed via chemical exchange. Magnetic Resonance Imaging, 2022, 92, 100-107.	1.0	1
68	Tests of clustering thalamic nuclei based on various dMRI models in the squirrel monkey brain. , 2018, 10578, .		0