Moritz Zaiss

List of Publications by Year
in descending order

68	3,652	117625 34	138484 58
papers	citations	h-index	g-index

70	70	70	1945
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pros and cons of ultra-high-field MRI/MRS for human application. Progress in Nuclear Magnetic Resonance Spectroscopy, 2018, 109, 1-50.	7.5	331
2	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.	2.8	234
3	Correction of B1â€inhomogeneities for relaxationâ€compensated CEST imaging at 7â€‰T. NMR in Biomedicine, 2015, 28, 529-537.	2.8	180
4	Exchangeâ€dependent relaxation in the rotating frame for slow and intermediate exchange â€“ modeling offâ€resonant spinâ€lock and chemical exchange saturation transfer. NMR in Biomedicine, 2013, 26, 507-518.	2.8	178
5	Relaxation-compensated CEST-MRI of the human brain at 7 T: Unbiased insight into NOE and amide signal changes in human glioblastoma. NeuroImage, 2015, 112, 180-188.	4.2	165
6	On the origins of chemical exchange saturation transfer (CEST) contrast in tumors at 9.4â€‰T. NMR in Biomedicine, 2014, 27, 406-416.	2.8	133
7	Assessing the predictability of IDH mutation and MGMT methylation status in glioma patients using relaxation-compensated multipool CEST MRI at 7.0 T. Neuro-Oncology, 2018, 20, 1661-1671.	1.2	119
8	A combined analytical solution for chemical exchange saturation transfer and semiâ€solid magnetization transfer. NMR in Biomedicine, 2015, 28, 217-230.	2.8	111
9	Downfieldâ€NOEâ€suppressed amideâ€CESTâ€MRI at 7 Tesla provides a unique contrast in human glioblastoma. Magnetic Resonance in Medicine, 2017, 77, 196-208.	3.0	108
10	Simultaneous mapping of water shift and B₁(WASABI)â€”Application to fieldâ€inhomogeneity correction of <scp>CEST</scp><scp>MRI</scp> data. Magnetic Resonance in Medicine, 2017, 77, 571-580.	3.0	99
11	QUESP and QUEST revisited â€“ fast and accurate quantitative CEST experiments. Magnetic Resonance in Medicine, 2018, 79, 1708-1721.	3.0	82
12	Snapshotâ€CEST: Optimizing spiralâ€centricâ€reordered gradient echo acquisition for fast and robust 3D CEST MRI at 9.4ÂT. NMR in Biomedicine, 2018, 31, e3879.	2.8	76
13	Optimization of pulse train presaturation for CEST imaging in clinical scanners. Magnetic Resonance in Medicine, 2011, 65, 1620-1629.	3.0	72
14	MR imaging of protein folding in vitro employing Nuclearâ€Overhauserâ€mediated saturation transfer. NMR in Biomedicine, 2013, 26, 1815-1822.	2.8	72
15	Characterization of creatine guanidinium proton exchange by water-exchange (WEX) spectroscopy for absolute-pH CEST imagingin vitro. NMR in Biomedicine, 2014, 27, 507-518.	2.8	72
16	T1ϊweighted Dynamic Glucose-enhanced MR Imaging in the Human Brain. Radiology, 2017, 285, 914-922.	7.3	72
17	Adiabatically prepared spinâ€lock approach for T1ϊâ€based dynamic glucose enhanced MRI at ultrahigh fields. Magnetic Resonance in Medicine, 2017, 78, 215-225.	3.0	71
18	Relaxation-compensated amide proton transfer (APT) MRI signal intensity is associated with survival and progression in high-grade glioma patients. European Radiology, 2019, 29, 4957-4967.	4.5	64

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19	Chemical exchange saturation transfer MRI serves as predictor of early progression in glioblastoma patients. Oncotarget, 2018, 9, 28772-28783.	1.8	63
20	Nuclear Overhauser Enhancement Mediated Chemical Exchange Saturation Transfer Imaging at 7 Tesla in Glioblastoma Patients. PLoS ONE, 2014, 9, e104181.	2.5	62
21	Signature of protein unfolding in chemical exchange saturation transfer imaging. NMR in Biomedicine, 2015, 28, 906-913.	2.8	60
22	Analytical solution for the depolarization of hyperpolarized nuclei by chemical exchange saturation transfer between free and encapsulated xenon (HyperCEST). Journal of Chemical Physics, 2012, 136, 144106.	3.0	57
23	3D gradient echo snapshot CEST MRI with low power saturation for human studies at 3T. Magnetic Resonance in Medicine, 2019, 81, 2412-2423.	3.0	54
24	Quantification of hydroxyl exchange of Dâ€Glucose at physiological conditions for optimization of glucoCEST MRI at 3, 7 and 9.4 Tesla. NMR in Biomedicine, 2019, 32, e4113.	2.8	49
25	Relaxationâ€compensated APT and rNOE CESTâ€MRI of human brain tumors at 3 T. Magnetic Resonance in Medicine, 2019, 82, 622-632.	3.0	49
26	Relaxationâ€compensated CESTâ€MRI at 7â€‰T for mapping of creatine content and pH â€“ preliminary application in human muscle tissue in vivo. NMR in Biomedicine, 2015, 28, 1402-1412.	2.8	48
27	DeepCEST 3T: Robust MRI parameter determination and uncertainty quantification with neural networksâ€”application to CEST imaging of the human brain at 3T. Magnetic Resonance in Medicine, 2020, 84, 450-466.	3.0	48
28	Imaging of amide proton transfer and nuclear Overhauser enhancement in ischemic stroke with corrections for competing effects. NMR in Biomedicine, 2015, 28, 200-209.	2.8	44
29	Quantitative pulsed CEST-MRI usingÎ©-plots. NMR in Biomedicine, 2015, 28, 1196-1208.	2.8	43
30	T1Ïâ€based dynamic glucoseâ€enhanced (DGEÏ) MRI at 3 T: method development and early clinical experience in the human brain. Magnetic Resonance in Medicine, 2019, 82, 1832-1847.	3.0	43
31	Possible artifacts in dynamic CEST MRI due to motion and field alterations. Journal of Magnetic Resonance, 2019, 298, 16-22.	2.1	41
32	Nuclear Overhauser Enhancement Imaging of Glioblastoma at 7 Tesla: Region Specific Correlation with Apparent Diffusion Coefficient and Histology. PLoS ONE, 2015, 10, e0121220.	2.5	36
33	Towards quantification of pulsed spinlock and CEST at clinical MR scanners: an analytical interleaved saturationâ€“relaxation (ISAR) approach. NMR in Biomedicine, 2015, 28, 40-53.	2.8	36
34	Assessment of frequency drift on CEST MRI and dynamic correction: application to gagCEST at 7 T. Magnetic Resonance in Medicine, 2019, 81, 573-582.	3.0	35
35	On the transmit field inhomogeneity correction of relaxationâ€compensated amide and NOE CEST effects at 7ÂT. NMR in Biomedicine, 2017, 30, e3687.	2.8	34
36	Pulseqâ€CEST: Towards multiâ€site multiâ€vendor compatibility and reproducibility of CEST experiments using an openâ€source sequence standard. Magnetic Resonance in Medicine, 2021, 86, 1845-1858.	3.0	33

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37	Aggregationâ€induced changes in the chemical exchange saturation transfer (CEST) signals of proteins. NMR in Biomedicine, 2017, 30, e3665.	2.8	32
38	Chemical exchange saturation transfer MRI contrast in the human brain at 9.4â€¯T. NeuroImage, 2018, 179, 144-155.	4.2	32
39	Adaptive denoising for chemical exchange saturation transfer MR imaging. NMR in Biomedicine, 2019, 32, e4133.	2.8	32
40	A fast multislice sequence for 3D MRIâ€CEST pH imaging. Magnetic Resonance in Medicine, 2021, 85, 1335-1349.	3.0	31
41	DeepCEST: 9.4 T Chemical exchange saturation transfer MRI contrast predicted from 3ÂT data â€“ a proof of concept study. Magnetic Resonance in Medicine, 2019, 81, 3901-3914.	3.0	30
42	CEST MRâ€Fingerprinting: Practical considerations and insights for acquisition schedule design and improved reconstruction. Magnetic Resonance in Medicine, 2020, 83, 462-478.	3.0	28
43	Chemical exchange saturation transfer (CEST) signal intensity at 7T MRI of WHO IVÂ° gliomas is dependent on the anatomic location. Journal of Magnetic Resonance Imaging, 2019, 49, 777-785.	3.4	27
44	Wholeâ€brain snapshot CEST imaging at 7 T using 3Dâ€EPI. Magnetic Resonance in Medicine, 2019, 82, 1741-1752.	3.0	27
45	A novel normalization for amide proton transfer CEST MRI to correct for fat signalâ€“induced artifacts: application to human breast cancer imaging. Magnetic Resonance in Medicine, 2020, 83, 920-934.	3.0	26
46	Whole brain snapshot CEST at 3T using 3Dâ€EPI: Aiming for speed, volume, and homogeneity. Magnetic Resonance in Medicine, 2020, 84, 2469-2483.	3.0	25
47	Multiple interleaved mode saturation (MIMOSA) for B₁⁺ inhomogeneity mitigation in chemical exchange saturation transfer. Magnetic Resonance in Medicine, 2019, 82, 693-705.	3.0	22
48	An endâ€toâ€end Alâ€based framework for automated discovery of rapid CEST/MT MRI acquisition protocols and molecular parameter quantification (AutoCEST). Magnetic Resonance in Medicine, 2022, 87, 2792-2810.	3.0	22
49	Measurement of APT using a combined CERT-AREX approach with varying duty cycles. Magnetic Resonance Imaging, 2017, 42, 22-31.	1.8	18
50	Dualâ€frequency irradiation CESTâ€MRI of endogenous bulk mobile proteins. NMR in Biomedicine, 2018, 31, e3920.	2.8	18
51	CEST imaging at 9.4 T using adjusted adiabatic spinâ€lock pulses for onâ€and offâ€resonant T1ρâ€dominated Zâ€spectrum acquisition. Magnetic Resonance in Medicine, 2019, 81, 275-290.	3.0	18
52	Spectrally Undiscerned Isomers Might Lead to Erroneous Determination of Water Exchange Rates of paraCEST Eu(III) Agents. Inorganic Chemistry, 2017, 56, 7737-7745.	4.0	17
53	R₁correction in amide proton transfer imaging: indication of the influence of transcytolemmal water exchange on CEST measurements. NMR in Biomedicine, 2015, 28, 1655-1662.	2.8	16
54	Inert macrocyclic Eu³⁺ complex with affirmative paraCEST features. Inorganic Chemistry Frontiers, 2020, 7, 2274-2286.	6.0	14

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55	Paramagnetic chemical exchange saturation transfer agents and their perspectives for application in magnetic resonance imaging. International Reviews in Physical Chemistry, 2021, 40, 51-79.	2.3	14
56	Nonâ€contrastâ€enhanced MRI of the pulmonary blood volume using twoâ€compartmentâ€modeled T₁â€relaxation. Journal of Magnetic Resonance Imaging, 2012, 36, 397-404.	3.4	13
57	Dynamic Interactions in Synthetic Receptors: A Guest Exchange Saturation Transfer Study. Chemistry - A European Journal, 2019, 25, 1687-1690.	3.3	11
58	Dynamic glucoseâ€enhanced (DGE) MRI in the human brain at 7 T with reduced motionâ€induced artifacts based on quantitative R 1Ï•mapping. Magnetic Resonance in Medicine, 2020, 84, 182-191.	3.0	11
59	Wholeâ€brain quantitative CEST MRI at 7T using parallel transmission methods and correction. Magnetic Resonance in Medicine, 2021, 86, 346-362.	3.0	11
60	Mapping intracellular pH in tumors using amide and guanidyl CESTâ€MRI at 9.4 T. Magnetic Resonance in Medicine, 2022, 87, 2436-2452.	3.0	11
61	Amide proton transfer of carnosine in aqueous solution studied in vitro by WEX and CEST experiments. NMR in Biomedicine, 2015, 28, 1097-1103.	2.8	9
62	PROâ€QUEST: a rapid assessment method based on progressive saturation for quantifying exchange rates using saturation times in CEST. Magnetic Resonance in Medicine, 2018, 80, 1638-1654.	3.0	9
63	7 tricks for 7 T CEST: Improving the reproducibility of multipool evaluation provides insights into the effects of age and the early stages of Parkinson's disease. NMR in Biomedicine, 2023, 36, e4717.	2.8	9
64	Comparison of B0 versus B0 and B1 field inhomogeneity correction for glycosaminoglycan chemical exchange saturation transfer imaging. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 645-651.	2.0	8
65	Linear projectionâ€based chemical exchange saturation transfer parameter estimation. NMR in Biomedicine, 2023, 36, e4697.	2.8	7
66	Structure or Exchange? On the Feasibility of Chemical Exchange Detection with Balanced Steadyâ€State Free Precession in Tissue â€“ An In Vitro Study. NMR in Biomedicine, 2020, 33, e4200.	2.8	5
67	On the interference from agar in chemical exchange saturation transfer MRI parameter optimization in model solutions. NMR in Biomedicine, 2021, 34, e4403.	2.8	5
68	Optimized dualCESTâ€MRI for imaging of endogenous bulk mobile proteins in the human brain. NMR in Biomedicine, 2020, 33, e4262.	2.8	3