Phillip Zhe Sun

List of Publications by Year
in descending order

89 papers	4,298 citations	87888 38 h-index	110387 64 g-index
89 all docs	89 docs citations	89 times ranked	2098 citing authors

#	Article	IF	Citations
1	Detection of tissue pH with quantitative chemical exchange saturation transfer magnetic resonance imaging. NMR in Biomedicine, 2023, 36, e4711.	2.8	13
2	Tissue perfusion of the kurtosis/diffusion mismatch differs from the central core and peripheral regions in acute cerebral infarction patients. Acta Radiologica, 2023, 64, 1155-1165.	1.1	1
3	Demonstration of fast multiâ€slice quasiâ€steadyâ€state chemical exchange saturation transfer (QUASS) Tj ETQq1 1 0.784314 rgBT	3.0	20
4	Consistent depiction of the acidic ischemic lesion with APT MRIâ€"Dual RF power evaluation of pHâ€sensitive image in acute stroke. Magnetic Resonance in Medicine, 2022, 87, 850-858.	3.0	9
5	Fast and equilibrium CEST imaging of brain tumor patients at 3T. NeuroImage: Clinical, 2022, 33, 102890.	2.7	21
6	Demonstration of fast and equilibrium human muscle creatine CEST imaging at <scp>3 T</scp>. Magnetic Resonance in Medicine, 2022, 88, 322-331.	3.0	8
7	Fast diffusion kurtosis imaging in acute ischemic stroke shows mean kurtosisâ€diffusivity mismatch. Journal of Neuroimaging, 2022, , .	2.0	0
8	Review and consensus recommendations on clinical <scp>APT</scp>â€weighted imaging approaches at <scp>3T</scp>: Application to brain tumors. Magnetic Resonance in Medicine, 2022, 88, 546-574.	3.0	79
9	Refined Ischemic Penumbra Imaging with Tissue pH and Diffusion Kurtosis Magnetic Resonance Imaging. Translational Stroke Research, 2021, 12, 742-753.	4.2	17
10	Development of fast multiâ€slice apparent T₁ mapping for improved arterial spin labeling MRI measurement of cerebral blood flow. Magnetic Resonance in Medicine, 2021, 85, 1571-1580.	3.0	16
11	Quasiâ€steady state chemical exchange saturation transfer (QUASS CEST) analysisâ€"correction of the finite relaxation delay and saturation time for robust CEST measurement. Magnetic Resonance in Medicine, 2021, 85, 3281-3289.	3.0	27
12	Analysis Protocol for the Quantification of Renal pH Using Chemical Exchange Saturation Transfer (CEST) MRI. Methods in Molecular Biology, 2021, 2216, 667-688.	0.9	4
13	Renal pH Imaging Using Chemical Exchange Saturation Transfer (CEST) MRI: Basic Concept. Methods in Molecular Biology, 2021, 2216, 241-256.	0.9	3
14	Low-density lipoprotein receptor-related protein-1 (LRP1) targeting contrast-enhanced MRI as a novel strategy for epilepsy imaging. EBioMedicine, 2021, 64, 103212.	6.1	1
15	Preliminary demonstration of in vivo quasiâ€steadyâ€state CEST postprocessingâ€"Correction of saturation time and relaxation delay for robust quantification of tumor MT and APT effects. Magnetic Resonance in Medicine, 2021, 86, 943-953.	3.0	25
16	Quasiâ€"steadyâ€state CEST (QUASS CEST) solution improves the accuracy of CEST quantification: QUASS CEST MRIâ€based omega plot analysis. Magnetic Resonance in Medicine, 2021, 86, 765-776.	3.0	28
17	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
18	Alkaline brain pH shift in rodent lithium-pilocarpine model of epilepsy with chronic seizures. Brain Research, 2021, 1758, 147345.	2.2	5

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19	Quasi-steady-state chemical exchange saturation transfer (QUASS CEST) MRI analysis enables T1 normalized CEST quantification â€“ Insight into T1 contribution to CEST measurement. Journal of Magnetic Resonance, 2021, 329, 107022.	2.1	15
20	Brain pH Imaging and its Applications. Neuroscience, 2021, 474, 51-62.	2.3	13
21	Metabolic Magnetic Resonance Imaging in Neuroimaging: Magnetic Resonance Spectroscopy, Sodium Magnetic Resonance Imaging and Chemical Exchange Saturation Transfer. Seminars in Ultrasound, CT and MRI, 2021, 42, 452-462.	1.5	2
22	Renal pH Mapping Using Chemical Exchange Saturation Transfer (CEST) MRI: Experimental Protocol. Methods in Molecular Biology, 2021, 2216, 455-471.	0.9	2
23	Development of intravoxel inhomogeneity correction forÂchemical exchange saturation transfer spectral imaging: a highâ€resolution field mapâ€based deconvolution algorithm for magnetic field inhomogeneity correction. Magnetic Resonance in Medicine, 2020, 83, 1348-1355.	3.0	7
24	Fast correction of B₀ field inhomogeneity for pHâ€specific magnetization transfer and relaxation normalized amide proton transfer imaging of acute ischemic stroke without Zâ€spectrum. Magnetic Resonance in Medicine, 2020, 83, 1688-1697.	3.0	16
25	Improved MR fingerprinting for relaxation measurement in the presence of semisolid magnetization transfer. Magnetic Resonance in Medicine, 2020, 84, 727-737.	3.0	4
26	Examining fMRI time-series entropy as a marker for brain E/I balance with pharmacological neuromodulation in a non-human primate translational model. Neuroscience Letters, 2020, 728, 134984.	2.1	0
27	Chemical Exchange Mapping. Advances in Magnetic Resonance Technology and Applications, 2020, 1, 857-883.	0.1	1
28	Investigating the origin of pHâ€sensitive magnetization transfer ratio asymmetry MRI contrast during the acute stroke: Correction of T 1 change reveals the dominant amide proton transfer MRI signal. Magnetic Resonance in Medicine, 2020, 84, 2702-2712.	3.0	18
29	Chemokine receptor 4 targeted protein MRI contrast agent for early detection of liver metastases. Science Advances, 2020, 6, eaav7504.	10.3	17
30	Demonstration of magnetization transfer and relaxation normalized pHâ€specific pulseâ€amide proton transfer imaging in an animal model of acute stroke. Magnetic Resonance in Medicine, 2020, 84, 1526-1533.	3.0	9
31	Determination of multipool contributions to endogenous amide proton transfer effects in global ischemia with high spectral resolution in vivo chemical exchange saturation transfer <scp>MRI</scp>. Magnetic Resonance in Medicine, 2019, 81, 645-652.	3.0	45
32	Mapping tissue pH in an experimental model of acute stroke â€“ Determination of graded regional tissue pH changes with non-invasive quantitative amide proton transfer MRI. NeuroImage, 2019, 191, 610-617.	4.2	47
33	Preliminary evaluation of dynamic glucose enhanced MRI of the human placenta during glucose tolerance test. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1619-1627.	2.0	8
34	In vivo microscopic diffusional kurtosis imaging with symmetrized double diffusion encoding EPI. Magnetic Resonance in Medicine, 2019, 81, 533-541.	3.0	10
35	Direct radiofrequency saturation corrected amide proton transfer tumor MRI at 3T. Magnetic Resonance in Medicine, 2019, 81, 2710-2719.	3.0	11
36	Preliminary evaluation of accelerated microscopic diffusional kurtosis imaging (Î¼DKI) in a rodent model of epilepsy. Magnetic Resonance Imaging, 2019, 56, 90-95.	1.8	5

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37	JOURNAL CLUB: Evaluation of Diffusion Kurtosis Imaging of Stroke Lesion With Hemodynamic and Metabolic MRI in a Rodent Model of Acute Stroke. American Journal of Roentgenology, 2018, 210, 720-727.	2.2	24
38	Diffusion Kurtosis Imaging of Acute Infarction: Comparison with Routine Diffusion and Follow-up MR Imaging. Radiology, 2018, 287, 651-657.	7.3	49
39	pHâ€sensitive amide proton transfer effect dominates the magnetization transfer asymmetry contrast during acute ischemiaâ€"quantification of multipool contribution to in vivo CEST MRI. Magnetic Resonance in Medicine, 2018, 79, 1602-1608.	3.0	43
40	A generalized ratiometric chemical exchange saturation transfer (CEST) MRI approach for mapping renal pH using iopamidol. Magnetic Resonance in Medicine, 2018, 79, 1553-1558.	3.0	57
41	Within-subject test-retest reliability of the atlas-based cortical volume measurement in the rat brain: A voxel-based morphometry study. Journal of Neuroscience Methods, 2018, 307, 46-52.	2.5	10
42	Progress toward quantitative in vivo chemical exchange saturation transfer (CEST) MRI. Israel Journal of Chemistry, 2017, 57, 809-824.	2.3	12
43	Quantitative chemical exchange saturation transfer (CEST) MRI of glioma using Image Downsampling Expedited Adaptive Least-squares (IDEAL) fitting. Scientific Reports, 2017, 7, 84.	3.3	65
44	Fleeting footprints: finding MRI biomarkers of transient ischaemic attack. Brain, 2017, 140, 8-10.	7.6	3
45	Direct saturationâ€corrected chemical exchange saturation transfer MRI of glioma: Simplified decoupling of amide proton transfer and nuclear overhauser effect contrasts. Magnetic Resonance in Medicine, 2017, 78, 2307-2314.	3.0	18
46	pH imaging reveals worsened tissue acidification in diffusion kurtosis lesion than the kurtosis/diffusion lesion mismatch in an animal model of acute stroke. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 3325-3333.	4.3	32
47	A theoretical analysis of chemical exchange saturation transfer echo planar imaging (CESTâ€EPI) steady state solution and the CEST sensitivity efficiencyâ€based optimization approach. Contrast Media and Molecular Imaging, 2016, 11, 415-423.	0.8	33
48	In Vitro and In Vivo Assessment of Nonionic Iodinated Radiographic Molecules as Chemical Exchange Saturation Transfer Magnetic Resonance Imaging Tumor Perfusion Agents. Investigative Radiology, 2016, 51, 155-162.	6.2	41
49	pH-sensitive MRI demarcates graded tissue acidification during acute stroke â€• pH specificity enhancement with magnetization transfer and relaxation-normalized amide proton transfer (APT) MRI. NeuroImage, 2016, 141, 242-249.	4.2	65
50	Fast diffusion kurtosis imaging (DKI) with Inherent COrrelationâ€based Normalization (ICON) enhances automatic segmentation of heterogeneous diffusion MRI lesion in acute stroke. NMR in Biomedicine, 2016, 29, 1670-1677.	2.8	12
51	Tissue Characterization with Quantitative High-Resolution Magic Angle Spinning Chemical Exchange Saturation Transfer Z-Spectroscopy. Analytical Chemistry, 2016, 88, 10379-10383.	6.5	10
52	A method for accurate pH mapping with chemical exchange saturation transfer (CEST) MRI. Contrast Media and Molecular Imaging, 2016, 11, 195-202.	0.8	35
53	Comparison of image sensitivity between conventional tensorâ€based and fast diffusion kurtosis imaging protocols in a rodent model of acute ischemic stroke. NMR in Biomedicine, 2016, 29, 625-630.	2.8	19
54	Fast simulation and optimization of pulse-train chemical exchange saturation transfer (CEST) imaging. Physics in Medicine and Biology, 2015, 60, 4719-4730.	3.0	18

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55	Quantitative chemical exchange saturation transfer (qCEST) MRI â€“ omega plot analysis of RFâ€spilloverâ€corrected inverse CEST ratio asymmetry for simultaneous determination of labile proton ratio and exchange rate. NMR in Biomedicine, 2015, 28, 376-383.	2.8	48
56	A review of optimization and quantification techniques for chemical exchange saturation transfer MRI toward sensitive in vivo imaging. Contrast Media and Molecular Imaging, 2015, 10, 163-178.	0.8	95
57	Quantitative description of radiofrequency (RF) powerâ€based ratiometric chemical exchange saturation transfer (CEST) pH imaging. NMR in Biomedicine, 2015, 28, 555-565.	2.8	53
58	Validation of fast diffusion kurtosis MRI for imaging acute ischemia in a rodent model of stroke. NMR in Biomedicine, 2014, 27, 1413-1418.	2.8	37
59	Quantification of iopamidol multi-site chemical exchange properties for ratiometric chemical exchange saturation transfer (CEST) imaging of pH. Physics in Medicine and Biology, 2014, 59, 4493-4504.	3.0	55
60	Sensitivityâ€enhanced chemical exchange saturation transfer (CEST) MRI with least squares optimization of Carr Purcell Meiboom Gill multiâ€echo echo planar imaging. Contrast Media and Molecular Imaging, 2014, 9, 177-181.	0.8	14
61	Quantitative chemical exchange saturation transfer (qCEST) MRI â€“ RF spillover effectâ€corrected omega plot for simultaneous determination of labile proton fraction ratio and exchange rate. Contrast Media and Molecular Imaging, 2014, 9, 268-275.	0.8	55
62	A General MRI-CEST Ratiometric Approach for pH Imaging: Demonstration of in Vivo pH Mapping with Iobitridol. Journal of the American Chemical Society, 2014, 136, 14333-14336.	13.7	155
63	Simultaneous experimental determination of labile proton fraction ratio and exchange rate with irradiation radio frequency powerâ€dependent quantitative CEST MRI analysis. Contrast Media and Molecular Imaging, 2013, 8, 246-251.	0.8	27
64	Evaluation of the dependence of CEST-EPI measurement on repetition time, RF irradiation duty cycle and imaging flip angle for enhanced pH sensitivity. Physics in Medicine and Biology, 2013, 58, N229-N240.	3.0	48
65	Stratification of Heterogeneous Diffusion MRI Ischemic Lesion With Kurtosis Imaging. Stroke, 2012, 43, 2252-2254.	2.0	94
66	Imaging acute ischemic tissue acidosis with pH-sensitive endogenous amide proton transfer (APT) MRIâ€”Correction of tissue relaxation and concomitant RF irradiation effects toward mapping quantitative cerebral tissue pH. NeuroImage, 2012, 60, 1-6.	4.2	105
67	Simplified quantification of labile proton concentrationâ€weighted chemical exchange rate (k_{ws}) with RF saturation time dependent ratiometric analysis (QUESTRA): Normalization of relaxation and RF irradiation spillover effects for improved quantitative chemical exchange saturation transfer (CEST) MRI. Magnetic Resonance in Medicine, 2012, 67, 936-942.	3.0	55
68	Improved measurement of labile proton concentrationâ€weighted chemical exchange rate (k_{ws}) with experimental factorâ€compensated and T₁â€normalized quantitative chemical exchange saturation transfer (CEST) MRI. Contrast Media and Molecular Imaging, 2012, 7, 384-389.	0.8	44
69	Fast radioâ€frequency enforced steady state (FRESS) spin echo MRI for quantitative T₂ mapping: minimizing the apparent repetition time (TR) dependence for fast T₂ measurement. NMR in Biomedicine, 2012, 25, 189-194.	2.8	14
70	Association between pH-Weighted Endogenous Amide Proton Chemical Exchange Saturation Transfer MRI and Tissue Lactic Acidosis during Acute Ischemic Stroke. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 1743-1750.	4.3	129
71	Fast multislice pHâ€weighted chemical exchange saturation transfer (CEST) MRI with Unevenly segmented RF irradiation. Magnetic Resonance in Medicine, 2011, 65, 588-594.	3.0	73
72	Simulation and optimization of pulsed radio frequency irradiation scheme for chemical exchange saturation transfer (CEST) MRIâ€”demonstration of pHâ€weighted pulsedâ€amide proton CEST MRI in an animal model of acute cerebral ischemia. Magnetic Resonance in Medicine, 2011, 66, 1042-1048.	3.0	75

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73	Magnetic Resonance Characterization of Ischemic Tissue Metabolism. Open Neuroimaging Journal, 2011, 5, 66-73.	0.2	5
74	Simplified and scalable numerical solution for describing multi-pool chemical exchange saturation transfer (CEST) MRI contrast. Journal of Magnetic Resonance, 2010, 205, 235-241.	2.1	54
75	Simultaneous determination of labile proton concentration and exchange rate utilizing optimal RF power: Radio frequency power (RFP) dependence of chemical exchange saturation transfer (CEST) MRI. Journal of Magnetic Resonance, 2010, 202, 155-161.	2.1	60
76	Early Experience of Translating pH-Weighted MRI to Image Human Subjects at 3 Tesla. Stroke, 2010, 41, S147-51.	2.0	73
77	Relaxationâ€compensated fast multislice amide proton transfer (APT) imaging of acute ischemic stroke. Magnetic Resonance in Medicine, 2008, 59, 1175-1182.	3.0	89
78	Imaging pH using the chemical exchange saturation transfer (CEST) MRI: Correction of concomitant RF irradiation effects to quantify CEST MRI for chemical exchange rate and pH. Magnetic Resonance in Medicine, 2008, 60, 390-397.	3.0	131
79	Investigation of optimizing and translating pHâ€sensitive pulsedâ€chemical exchange saturation transfer (CEST) imaging to a 3T clinical scanner. Magnetic Resonance in Medicine, 2008, 60, 834-841.	3.0	136
80	Amide proton transfer imaging of 9L gliosarcoma and human glioblastoma xenografts. NMR in Biomedicine, 2008, 21, 489-497.	2.8	92
81	Magnetic resonance in porous media: Recent progress. Journal of Chemical Physics, 2008, 128, 052212.	3.0	64
82	Simplified quantitative description of amide proton transfer (APT) imaging during acute ischemia. Magnetic Resonance in Medicine, 2007, 57, 405-410.	3.0	122
83	Correction for artifacts induced by B₀ and B₁ field inhomogeneities in pHâ€sensitive chemical exchange saturation transfer (CEST) imaging. Magnetic Resonance in Medicine, 2007, 58, 1207-1215.	3.0	156
84	Improved diffusion measurement in heterogeneous systems using the magic asymmetric gradient stimulated echo (MAGSTE) technique. Journal of Magnetic Resonance, 2007, 187, 177-183.	2.1	15
85	Detection of the Ischemic Penumbra Using pH-Weighted MRI. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1129-1136.	4.3	296
86	Quantifying exchange rates in chemical exchange saturation transfer agents using the saturation time and saturation power dependencies of the magnetization transfer effect on the magnetic resonance imaging signal (QUEST and QUESP): Ph calibration for poly-L-lysine and a starburst dendrimer. Magnetic Resonance in Medicine, 2006, 55, 836-847.	3.0	288
87	Optimization of the irradiation power in chemical exchange dependent saturation transfer experiments. Journal of Magnetic Resonance, 2005, 175, 193-200.	2.1	149
88	Suppression of lipid artifacts in amide proton transfer imaging. Magnetic Resonance in Medicine, 2005, 54, 222-225.	3.0	48
89	Quantitative description of proton exchange processes between water and endogenous and exogenous agents for WEX, CEST, and APT experiments. Magnetic Resonance in Medicine, 2004, 51, 945-952.	3.0	258