

Daniel F Gochberg

List of Publications by Year in descending order

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74
papers

3,706
citations

87888

38
h-index

138484

58
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74
all docs

74
docs citations

74
times ranked

2936
citing authors

#	ARTICLE	IF	CITATIONS
1	Inverse Z-spectrum analysis for spillover-, MT-, and T ₁ -corrected steady-state pulsed CEST-MRI - application to pH-weighted MRI of acute stroke. <i>NMR in Biomedicine</i> , 2014, 27, 240-252.	2.8	234
2	Characterization of ¹ H NMR signal in human cortical bone for magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 680-687.	3.0	135
3	Multixponential T ₂ , magnetization transfer, and quantitative histology in white matter tracts of rat spinal cord. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 902-909.	3.0	134
4	On the origins of chemical exchange saturation transfer (CEST) contrast in tumors at 9.4%T. <i>NMR in Biomedicine</i> , 2014, 27, 406-416.	2.8	133
5	Quantitative magnetization transfer imaging via selective inversion recovery with short repetition times. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 437-441.	3.0	118
6	A combined analytical solution for chemical exchange saturation transfer and semi-solid magnetization transfer. <i>NMR in Biomedicine</i> , 2015, 28, 217-230.	2.8	111
7	Clinically compatible MRI strategies for discriminating bound and pore water in cortical bone. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 1774-1784.	3.0	107
8	Quantitative imaging of magnetization transfer using an inversion recovery sequence. <i>Magnetic Resonance in Medicine</i> , 2003, 49, 501-505.	3.0	105
9	Optimizing pulsed chemical exchange saturation transfer imaging sequences. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 1100-1108.	3.0	105
10	A new method for detecting exchanging amide protons using chemical exchange rotation transfer. <i>Magnetic Resonance in Medicine</i> , 2013, 69, 637-647.	3.0	105
11	The radial diffusivity and magnetization transfer pool size ratio are sensitive markers for demyelination in a rat model of type III multiple sclerosis (MS) lesions. <i>NeuroImage</i> , 2013, 74, 298-305.	4.2	104
12	Non-invasive Predictors of Human Cortical Bone Mechanical Properties: T2-Discriminated 1H NMR Compared with High Resolution X-ray. <i>PLoS ONE</i> , 2011, 6, e16359.	2.5	104
13	Accuracy in the quantification of chemical exchange saturation transfer (CEST) and relayed nuclear Overhauser enhancement (rNOE) saturation transfer effects. <i>NMR in Biomedicine</i> , 2017, 30, e3716.	2.8	90
14	A new NOE-mediated MT signal at around \sim 1.6ppm for detecting ischemic stroke in rat brain. <i>Magnetic Resonance Imaging</i> , 2016, 34, 1100-1106.	1.8	84
15	Multi-angle ratiometric approach to measure chemical exchange in amide proton transfer imaging. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 711-719.	3.0	79
16	Review and consensus recommendations on clinical APT-weighted imaging approaches at 3T: Application to brain tumors. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 546-574.	3.0	79
17	The MT pool size ratio and the DTI radial diffusivity may reflect the myelination in shiverer and control mice. <i>NMR in Biomedicine</i> , 2009, 22, 480-487.	2.8	76
18	The microstructural correlates of T ₁ in white matter. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1341-1345.	3.0	74

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19	Multi-parametric MRI characterization of healthy human thigh muscles at 3.0 T - relaxation, magnetization transfer, fat/water, and diffusion tensor imaging. <i>NMR in Biomedicine</i> , 2014, 27, 1070-1084.	2.8	71
20	Evaluation of diffusion kurtosis imaging in ex vivo hypomyelinated mouse brains. <i>NeuroImage</i> , 2016, 124, 612-626.	4.2	71
21	Quantitative magnetization transfer measured pool size ratio reflects optic nerve myelin content in ex vivo mice. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 364-371.	3.0	69
22	Assignment of the molecular origins of CEST signals at 2 ppm in rat brain. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 881-887.	3.0	63
23	Imaging amide proton transfer and nuclear overhauser enhancement using chemical exchange rotation transfer (CERT). <i>Magnetic Resonance in Medicine</i> , 2014, 72, 471-476.	3.0	62
24	Quantitative magnetization transfer imaging in human brain at 3 T via selective inversion recovery. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 1346-1352.	3.0	59
25	Amide proton transfer imaging of the human breast at 7T: development and reproducibility. <i>NMR in Biomedicine</i> , 2013, 26, 1271-1277.	2.8	58
26	In Vivo Quantitative MR Imaging of Bound and Pore Water in Cortical Bone. <i>Radiology</i> , 2015, 277, 221-229.	7.3	58
27	Myelin volume fraction imaging with MRI. <i>NeuroImage</i> , 2018, 182, 511-521.	4.2	58
28	Optimized inversion recovery sequences for quantitative T_1 and magnetization transfer imaging. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 491-500.	3.0	57
29	Quantitative magnetization transfer imaging of human brain at 7 T. <i>NeuroImage</i> , 2013, 64, 640-649.	4.2	57
30	Quantitative studies of magnetization transfer by selective excitation and T_1 recovery. <i>Magnetic Resonance in Medicine</i> , 1997, 38, 224-231.	3.0	54
31	MRI-derived bound and pore water concentrations as predictors of fracture resistance. <i>Bone</i> , 2016, 87, 1-10.	2.9	54
32	Evaluation of principal component analysis image denoising on multi-exponential MRI relaxometry. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 3503-3514.	3.0	53
33	Validation of quantitative bound and pore water imaging in cortical bone. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 2166-2171.	3.0	52
34	P130Cas Src-Binding and Substrate Domains Have Distinct Roles in Sustaining Focal Adhesion Disassembly and Promoting Cell Migration. <i>PLoS ONE</i> , 2010, 5, e13412.	2.5	51
35	Multi-parametric MRI characterization of inflammation in murine skeletal muscle. <i>NMR in Biomedicine</i> , 2014, 27, 716-725.	2.8	49
36	MR imaging of a novel NOE-mediated magnetization transfer with water in rat brain at 9.4 T. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 588-597.	3.0	48

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37	Quantitative imaging of magnetization transfer using multiple selective pulses. <i>Magnetic Resonance in Medicine</i> , 1999, 41, 1065-1072.	3.0	46
38	Imaging of amide proton transfer and nuclear Overhauser enhancement in ischemic stroke with corrections for competing effects. <i>NMR in Biomedicine</i> , 2015, 28, 200-209.	2.8	44
39	Transverse relaxation and magnetization transfer in skeletal muscle: Effect of pH. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 560-569.	3.0	39
40	RF coil considerations for short-T ₂ MRI. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 1652-1657.	3.0	39
41	Chemical exchange rotation transfer imaging of intermediate-exchanging amines at 2Âppm. <i>NMR in Biomedicine</i> , 2017, 30, e3756.	2.8	39
42	CEST imaging of fast exchanging amine pools with corrections for competing effects at 9.4ÂT. <i>NMR in Biomedicine</i> , 2017, 30, e3715.	2.8	31
43	Quantitative magnetization transfer imaging of rodent glioma using selective inversion recovery. <i>NMR in Biomedicine</i> , 2014, 27, 253-260.	2.8	30
44	Studies of magnetization transfer and relaxation in irradiated polymer gels - interpretation of MRI-based dosimetry. <i>Physics in Medicine and Biology</i> , 2001, 46, 799-811.	3.0	28
45	A rapid approach for quantitative magnetization transfer imaging in thigh muscles using the pulsed saturation method. <i>Magnetic Resonance Imaging</i> , 2015, 33, 709-717.	1.8	27
46	Increased CEST specificity for amide and fast-exchanging amine protons using exchange-dependent relaxation rate. <i>NMR in Biomedicine</i> , 2018, 31, e3863.	2.8	27
47	Exchange-mediated contrast in CEST and spin-lock imaging. <i>Magnetic Resonance Imaging</i> , 2014, 32, 28-40.	1.8	25
48	In-vivo multi-exponential T ₂ , magnetization transfer and quantitative histology in a rat model of intramyelinic edema. <i>NeuroImage: Clinical</i> , 2013, 2, 810-817.	2.7	23
49	30-second bound and pore water concentration mapping of cortical bone using 2D UTE with optimized half-pulses. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 945-950.	3.0	23
50	Longitudinal assessment of spinal cord injuries in nonhuman primates with quantitative magnetization transfer. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1685-1696.	3.0	22
51	Optimization of selective inversion recovery magnetization transfer imaging for macromolecular content mapping in the human brain. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1824-1835.	3.0	20
52	Measurement of APT using a combined CERT-AREX approach with varying duty cycles. <i>Magnetic Resonance Imaging</i> , 2017, 42, 22-31.	1.8	18
53	Influence of water compartmentation and heterogeneous relaxation on quantitative magnetization transfer imaging in rodent brain tumors. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 635-644.	3.0	17
54	<i>R</i> ₁ correction in amide proton transfer imaging: indication of the influence of transcytolemmal water exchange on CEST measurements. <i>NMR in Biomedicine</i> , 2015, 28, 1655-1662.	2.8	16

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55	Experimental studies of g-ratio MRI in ex vivo mouse brain. <i>NeuroImage</i> , 2018, 167, 366-371.	4.2	16
56	Relayed nuclear Overhauser enhancement sensitivity to membrane Cho phospholipids. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 1961-1976.	3.0	16
57	Chemical exchange rotation transfer imaging of phosphocreatine in muscle. <i>NMR in Biomedicine</i> , 2021, 34, e4437.	2.8	15
58	Exchange-mediated contrast agents for spin-echo imaging. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 1427-1433.	3.0	14
59	Towards an analytic solution for pulsed CEST. <i>NMR in Biomedicine</i> , 2018, 31, e3903.	2.8	14
60	Chemical exchange rotation transfer (CERT) on human brain at 3 Tesla. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2609-2617.	3.0	14
61	Rapid whole-brain quantitative magnetization transfer imaging using 3D selective inversion recovery sequences. <i>Magnetic Resonance Imaging</i> , 2020, 68, 66-74.	1.8	12
62	Contribution of blood to nuclear Overhauser effect at ≈ 1.6 ppm. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 409-416.	3.0	10
63	A quantitative study of magnetization transfer in MAGIC gels. <i>Physics in Medicine and Biology</i> , 2003, 48, N277-N282.	3.0	9
64	Fast single-gradient simultaneous measurement of D and T2 in liquids via the distant dipolar field. <i>Chemical Physics Letters</i> , 2006, 431, 174-178.	2.6	9
65	Detection of microcalcifications by characteristic magnetic susceptibility effects using MR phase image cross-correlation analysis. <i>Medical Physics</i> , 2015, 42, 1436-1452.	3.0	8
66	Nuclear magnetic resonance signal dynamics of liquids in the presence of distant dipolar fields, revisited. <i>Journal of Chemical Physics</i> , 2009, 130, 174506.	3.0	6
67	ω -Molecular-MR imaging at high fields. <i>Magnetic Resonance Imaging</i> , 2017, 38, 95-100.	1.8	6
68	Magnetization transfer proportion: a simplified measure of dose response for polymer gel dosimetry. <i>Physics in Medicine and Biology</i> , 2008, 53, 7107-7124.	3.0	5
69	Quantitative Magnetic Resonance Imaging of Skeletal Muscle Disease. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	4
70	Effectiveness of fat suppression using a water-selective binomial-pulse excitation in chemical exchange saturation transfer (CEST) magnetic resonance imaging. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 809-818.	2.0	4
71	A hybrid numeric-analytic solution for pulsed CEST. <i>NMR in Biomedicine</i> , 2022, 35, e4610.	2.8	4
72	Finite element analysis of bone mechanical properties using MRI-derived bound and pore water concentration maps. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2023, 26, 905-916.	1.6	3

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73	Magnetization transfer in polymer gel dosimeters. Journal of Physics: Conference Series, 2006, 56, 253-255.	0.4	1
74	Mapping pH using stimulated echoes formed via chemical exchange. Magnetic Resonance Imaging, 2022, 92, 100-107.	1.8	1