Wolfgang R Bauer

List of Publications by Year
in descending order

76 papers	3,278 citations	117625 34 h-index	149698 56 g-index
79 all docs	79 docs citations	79 times ranked	3281 citing authors

#	Article	IF	Citations
1	Magnetic resonance microimaging for noninvasive quantification of myocardial function and mass in the mouse. Magnetic Resonance in Medicine, 1998, 40, 43-48.	3.0	174
2	Measuring RFâ€induced currents inside implants: Impact of device configuration on MRI safety of cardiac pacemaker leads. Magnetic Resonance in Medicine, 2009, 61, 570-578.	3.0	146
3	Factor XIII Deficiency Causes Cardiac Rupture, Impairs Wound Healing, and Aggravates Cardiac Remodeling in Mice With Myocardial Infarction. Circulation, 2006, 113, 1196-1202.	1.6	145
4	Changes in myocardial oxygenation and perfusion under pharmacological stress with dipyridamole: Assessment usingT*2 andT1 measurements. Magnetic Resonance in Medicine, 1999, 41, 686-695.	3.0	128
5	In Vivo quantitative mapping of cardiac perfusion in rats using a noninvasive MR spinâ€labeling method. Journal of Magnetic Resonance Imaging, 1998, 8, 1240-1245.	3.4	116
6	Spatial distribution of RFâ€induced Eâ€fields and implant heating in MRI. Magnetic Resonance in Medicine, 2008, 60, 312-319.	3.0	109
7	Myocardial infarction triggers cardioprotective antigen-specific T helper cell responses. Journal of Clinical Investigation, 2019, 129, 4922-4936.	8.2	109
8	Susceptibility-sensitive magnetic resonance imaging detects human myocardium supplied by a stenotic coronary artery without a contrast agent. Journal of the American College of Cardiology, 2003, 41, 834-840.	2.8	107
9	Molecular transport through channels and pores: Effects of in-channel interactions and blocking. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11446-11451.	7.1	93
10	Myocardial Perfusion and Intracapillary Blood Volume in Rats at Rest and with Coronary Dilatation: MR Imaging in Vivo with Use of a Spin-Labeling Technique. Radiology, 2000, 215, 189-197.	7.3	90
11	Imaging of myocardial inflammation with somatostatin receptor based PET/CT â€" A comparison to cardiac MRI. International Journal of Cardiology, 2015, 194, 44-49.	1.7	86
12	Theory of the BOLD effect in the capillary region: An analytical approach for the determination ofT*2 in the capillary network of myocardium. Magnetic Resonance in Medicine, 1999, 41, 51-62.	3.0	79
13	The relationship between the BOLD-induced T2 and T2*: A theoretical approach for the vasculature of myocardium. Magnetic Resonance in Medicine, 1999, 42, 1004-1010.	3.0	79
14	Somatostatin receptor based PET/CT in patients with the suspicion of cardiac sarcoidosis: an initial comparison to cardiac MRI. Oncotarget, 2016, 7, 77807-77814.	1.8	79
15	In vivo assessment of absolute perfusion and intracapillary blood volume in the murine myocardium by spin labeling magnetic resonance imaging. Magnetic Resonance in Medicine, 2005, 53, 584-592.	3.0	77
16	Magnetization exchange in capillaries by microcirculation affects diffusion-controlled spin-relaxation: A model which describes the effect of perfusion on relaxation enhancement by intravascular contrast agents. Magnetic Resonance in Medicine, 1996, 35, 43-55.	3.0	76
17	Visualization of Vascular Inflammation in the Atherosclerotic Mouse by Ultrasmall Superparamagnetic Iron Oxide Vascular Cell Adhesion Molecule-1â€"Specific Nanoparticles. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 2350-2357.	2.4	72
18	Serial cine-magnetic resonance imaging of left ventricular remodeling after myocardial infarction in rats. Journal of Magnetic Resonance Imaging, 2001, 14, 547-555.	3.4	71

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19	Creatine kinase knockout mice show left ventricular hypertrophy and dilatation, but unaltered remodeling post-myocardial infarction. Cardiovascular Research, 2005, 65, 419-427.	3.8	64
20	Fast High-Resolution Magnetic Resonance Imaging Demonstrates Fractality of Myocardial Perfusion in Microscopic Dimensions. Circulation Research, 2001, 88, 340-346.	4.5	58
21	[68Ga]Pentixafor-PET/CT for Imaging ofÂChemokine Receptor 4 Expression After Myocardial Infarction. JACC: Cardiovascular Imaging, 2015, 8, 1466-1468.	5.3	56
22	Multimodal functional cardiac MRI in creatine kinase-deficient mice reveals subtle abnormalities in myocardial perfusion and mechanics. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H2516-H2521.	3.2	53
23	Impact of hydroxymethylglutaryl coenzyme a reductase inhibition on left ventricular remodeling after myocardial infarction. Journal of the American College of Cardiology, 2002, 40, 1695-1700.	2.8	49
24	The effect of perfusion onT1 after slice-selective spin inversion in the isolated cardioplegic rat heart: Measurement of a lower bound of intracapillary-extravascular water proton exchange rate. Magnetic Resonance in Medicine, 1997, 38, 917-923.	3.0	48
25	Assessment of Cardiovascular Apoptosis in the Isolated Rat Heart by Magnetic Resonance Molecular Imaging. Molecular Imaging, 2006, 5, 7290.2006.00012.	1.4	46
26	Local Arterial Stiffening Assessed by MRI Precedes Atherosclerotic Plaque Formation. Circulation: Cardiovascular Imaging, 2013, 6, 916-923.	2.6	46
27	Monitoring of Monocyte Recruitment in Reperfused Myocardial Infarction With Intramyocardial Hemorrhage and Microvascular Obstruction by Combined Fluorine 19 and Proton Cardiac Magnetic Resonance Imaging. Circulation, 2013, 128, 1878-1888.	1.6	44
28	In vivo measurement of local aortic pulseâ€wave velocity in mice with MR microscopy at 17.6 tesla. Magnetic Resonance in Medicine, 2009, 61, 1293-1299.	3.0	42
29	Impact of imaging landmark on the risk of MRIâ€related heating near implanted medical devices like cardiac pacemaker leads. Magnetic Resonance in Medicine, 2011, 65, 44-50.	3.0	42
30	Imaging of C-X-C Motif Chemokine Receptor CXCR4 Expression After Myocardial Infarction With [68Ga]Pentixafor-PET/CT in Correlation WithÂCardiac MRI. JACC: Cardiovascular Imaging, 2018, 11, 1541-1543.	5.3	42
31	Theory of Coherent and Incoherent Nuclear Spin Dephasing in the Heart. Physical Review Letters, 1999, 83, 4215-4218.	7.8	40
32	Quantitative assessment of myocardial perfusion with a spin-labeling technique: Preliminary results in patients with coronary artery disease. Journal of Magnetic Resonance Imaging, 2003, 18, 555-560.	3.4	40
33	Intracellular and extracellular <i>T</i>₁ and <i>T</i>₂ relaxivities of magnetoâ€optical nanoparticles at experimental high fields. Magnetic Resonance in Medicine, 2010, 64, 1607-1615.	3.0	37
34	In vivo assessment of absolute perfusion in the murine skeletal muscle with spin labeling MRI. Journal of Magnetic Resonance Imaging, 2003, 17, 147-152.	3.4	36
35	Feasibility of Contrast-Enhanced and Nonenhanced MRI for Intraprocedural and Postprocedural Lesion Visualization in Interventional Electrophysiology. Circulation: Cardiovascular Imaging, 2011, 4, 282-294.	2.6	36
36	BOLD-MRI in ten patients with coronary artery disease: evidence for imaging of capillary recruitment in myocardium supplied by the stenotic artery. Magnetic Resonance Materials in Physics, Biology, and Medicine, 1999, 8, 48-54.	2.0	35

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37	Feasibility of Real-Time MRI With a Novel Carbon Catheter for Interventional Electrophysiology. Circulation: Arrhythmia and Electrophysiology, 2009, 2, 258-267.	4.8	35
38	Determination of regional blood volume and intra-extracapillary water exchange in human myocardium using Feruglose: First clinical results in patients with coronary artery disease. Magnetic Resonance in Medicine, 2002, 47, 1013-1016.	3.0	34
39	Detection of cardiac sarcoidosis by macrophage-directed somatostatin receptor 2-based positron emission tomography/computed tomography:. European Heart Journal, 2015, 36, 2404-2404.	2.2	34
40	Reducing RFâ€related heating of cardiac pacemaker leads in MRI: Implementation and experimental verification of practical design changes. Magnetic Resonance in Medicine, 2012, 68, 1963-1972.	3.0	33
41	Time course of right ventricular remodeling in rats with experimental myocardial infarction. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 284, H241-H248.	3.2	29
42	Spin dephasing in the extended strong collision approximation. Physical Review E, 2002, 65, 066123.	2.1	26
43	Myocardial perfusion imaging using a non-contrast agent MR imaging technique. International Journal of Cardiovascular Imaging, 2001, 17, 123-132.	0.6	25
44	Structure-specific magnetic field inhomogeneities and its effect on the correlation time. Magnetic Resonance Imaging, 2006, 24, 1341-1347.	1.8	25
45	Signal evolution in the local magnetic field of a capillary â€" analogy to the damped driven harmonic oscillator. Magnetic Resonance Imaging, 2012, 30, 540-553.	1.8	25
46	Myocardial T1: Quantification by Using an ECG-triggered Radial Single-Shot Inversion-Recovery MR Imaging Sequence. Radiology, 2015, 274, 879-887.	7.3	22
47	Chronic coronary artery stenosis induces impaired function of remote myocardium: MRI and spectroscopy study in rat. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 285, H2712-H2721.	3.2	21
48	Myocardial Perfusion Measurements by Spin?Labeling Under Different Vasodynamic States #. Journal of Cardiovascular Magnetic Resonance, 2004, 6, 509-516.	3.3	20
49	In vivo comparison of atherosclerotic plaque progression with vessel wall strain and blood flow velocity in apoEâˆ'/âˆ' mice with MR microscopy at 17.6 T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2009, 22, 159-166.	2.0	20
50	Study of Microcirculation by Coloured Microspheres and NMR-microscopy in Isolated Rat Heart: Effect of Ischaemia, Endothelin-1 and Endothelin-1 Antagonist BQ 610. Journal of Molecular and Cellular Cardiology, 1997, 29, 3115-3122.	1.9	18
51	Fast retrospectively triggered local pulse-wave velocity measurements in mice with CMR-microscopy using a radial trajectory. Journal of Cardiovascular Magnetic Resonance, 2013, 15, 88.	3.3	18
52	Quantitative regional blood volume studies in rat myocardiumin Vivo. Magnetic Resonance in Medicine, 1998, 40, 517-525.	3.0	17
53	Regional in vivo transit time measurements of aortic pulse wave velocity in mice with high-field CMR at 17.6 Tesla. Journal of Cardiovascular Magnetic Resonance, 2010, 12, 72.	3.3	17
54	Cardiac catheter ablation under real-time magnetic resonance guidance. European Heart Journal, 2012, 33, 1977-1977.	2.2	16

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55	Effect of Transmyocardial Laser Revascularization on Myocardial Perfusion and Left Ventricular Remodeling after Myocardial Infarction in Rats. Radiology, 2002, 225, 487-493.	7.3	15
56	Tissue ACE inhibition improves microcirculation in remote myocardium after coronary stenosis: MR imaging study in rats. Microvascular Research, 2010, 80, 484-490.	2.5	14
57	Myocardial perfusion quantification using the<i>T</i>₁-based FAIR-ASL method: The influence of heart anatomy, cardiopulmonary blood flow and look-locker readout. Magnetic Resonance in Medicine, 2014, 71, 1784-1797.	3.0	14
58	Investigation of Coronary Vessels in Microscopic Dimensions by Two- and Three-dimensional NMR Microscopic Imaging in the Isolated Rat Heart. Circulation, 1995, 92, 968-977.	1.6	14
59	Dynamics and efficiency of Brownian rotors. Journal of Chemical Physics, 2008, 129, 225103.	3.0	12
60	Functional mechanisms of myocardial microcirculation in left ventricular hypertrophy. Microvascular Research, 2008, 75, 104-111.	2.5	11
61	Quantification of perfusion in murine myocardium: A retrospectively triggered<i>T</i>₁-based ASL method using model-based reconstruction. Magnetic Resonance in Medicine, 2015, 74, 1705-1715.	3.0	11
62	Selfâ€navigation under nonâ€steadyâ€state conditions: Cardiac and respiratory selfâ€gating of inversion recovery snapshot FLASH acquisitions in mice. Magnetic Resonance in Medicine, 2016, 76, 1887-1894.	3.0	11
63	Local versus global aortic pulse wave velocity in early atherosclerosis: An animal study in ApoE-/--mice using ultrahigh field MRI. PLoS ONE, 2017, 12, e0171603.	2.5	11
64	Combined High-Speed NMR Imaging of Perfusion and Microscopic Coronary Conductance Vessels in the Isolated Rat Heart. Microvascular Research, 2001, 62, 327-334.	2.5	9
65	Stationary flow, first passage times, and macroscopic Fickâ€™s first diffusion law: Application to flow enhancement by particle trapping. Journal of Chemical Physics, 2005, 122, 244904.	3.0	9
66	Cooperative transport in nanochannels. Physical Review E, 2013, 88, 010703.	2.1	9
67	Thermodynamics of Competitive Molecular Channel Transport: Application to Artificial Nuclear Pores. PLoS ONE, 2010, 5, e15160.	2.5	9
68	Direct cooling of the catheter tip increases safety for CMR-guided electrophysiological procedures. Journal of Cardiovascular Magnetic Resonance, 2012, 14, 6.	3.3	8
69	Impact of Thoracic Surgery on Cardiac Morphology and Function in Small Animal Models of Heart Disease: A Cardiac MRI Study in Rats. PLoS ONE, 2013, 8, e68275.	2.5	7
70	Initial Clinical Application of Real-time MR Imagingâ€“guided Ablation of Cardiac Arrhythmia in Patients with Atrial Flutter. Radiology, 2014, 273, 310-311.	7.3	6
71	Wall shear stress analysis using 17.6 Tesla MRI: A longitudinal study in ApoE-/- mice with histological analysis. PLoS ONE, 2020, 15, e0238112.	2.5	3
72	Real-time magnetic resonance imaging-guided cardiac electrophysiology: the long road to clinical routine. European Heart Journal Cardiovascular Imaging, 2019, 20, 136-137.	1.2	1

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73	The true T1 values of myocardial high-energy phosphates?. Magnetic Resonance in Medicine, 1993, 29, 146-147.	3.0	0
74	Comments on 'Safe magnetic resonance image scanning of the pacemaker patient: current technologies and future directions'. Europace, 2012, 14, 1532-1532.	1.7	0
75	Response to Letter Regarding Article, â€œMonitoring of Monocyte Recruitment in Reperfused Myocardial Infarction With Intramyocardial Hemorrhage and Microvascular Obstruction By Combined Fluorine 19 and Proton Cardiac Magnetic Resonance Imagingâ€• Circulation, 2014, 130, e41-2.	1.6	0
76	Itâ€™s the Metabolism That Makes Macrophages Detectable in the Magnetic Resonance Scanner. Circulation Research, 2018, 122, 1039-1040.	4.5	0