Mikko I Kettunen

List of Publications by Year
in descending order

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118 papers	9,734 citations	41323 49 h-index	36008 97 g-index
120 all docs	120 docs citations	120 times ranked	10739 citing authors

#	Article	IF	Citations
1	Metabolism of hyperpolarised [1â€“¹³C]pyruvate in awake and anaesthetised rat brains. NMR in Biomedicine, 2022, 35, e4635.	1.6	7
2	Sensitive, Efficient and Portable Analysis of Molecular Exchange Processes by Hyperpolarized Ultrafast NMR. Angewandte Chemie - International Edition, 2022, 61, .	7.2	11
3	Data-Driven Regularization Parameter Selection in Dynamic MRI. Journal of Imaging, 2021, 7, 38.	1.7	1
4	Alcohol Co-Administration Changes Mephedrone-Induced Alterations of Neuronal Activity. Frontiers in Pharmacology, 2021, 12, 679759.	1.6	1
5	Inflammatory reaction in the retina after focal non-convulsive status epilepticus in mice investigated with high resolution magnetic resonance and diffusion tensor imaging. Epilepsy Research, 2021, 176, 106730.	0.8	1
6	Detection of lentiviral suicide gene therapy in C6 rat glioma using hyperpolarised [1â€•13 C]pyruvate. NMR in Biomedicine, 2020, 33, e4250.	1.6	3
7	Temporal Huber Regularization for DCE-MRI. Journal of Mathematical Imaging and Vision, 2020, 62, 1334-1346.	0.8	4
8	Cyclodextrinâ€Based Organic Radical Contrast Agents for inâ€…vivo Imaging of Gliomas. ChemPlusChem, 2020, 85, 1171-1178.	1.3	3
9	Hyperpolarized MRI for Studying Tumor Metabolism. Methods in Molecular Biology, 2019, 1928, 409-426.	0.4	0
10	Assessment of the Relaxation-Enhancing Properties of a Nitroxide-Based Contrast Agent TEEPO-Glc with In Vivo Magnetic Resonance Imaging. Contrast Media and Molecular Imaging, 2019, 2019, 1-8.	0.4	5
11	Designed inorganic porous nanovector with controlled release and MRI features for safe administration of doxorubicin. International Journal of Pharmaceutics, 2019, 554, 327-336.	2.6	12
12	Loss of NRF-2 and PGC-1Î± genes leads to retinal pigment epithelium damage resembling dry age-related macular degeneration. Redox Biology, 2019, 20, 1-12.	3.9	117
13	Analysis of ¹³C and ¹⁴C labeling in pyruvate and lactate in tumor and blood of lymphomaâ€bearing mice injected with ¹³Câ€•and ¹⁴Câ€labeled pyruvate. NMR in Biomedicine, 2018, 31, e3901.	1.6	23
14	State Estimation with Structural Priors in fMRI. Journal of Mathematical Imaging and Vision, 2018, 60, 174-188.	0.8	5
15	Cull(atsm) Attenuates Neuroinflammation. Frontiers in Neuroscience, 2018, 12, 668.	1.4	26
16	State estimation in dynamic MRI. , 2018, , .		0
17	Dynamic MRI reconstruction from undersampled data with an anatomical prescan. Inverse Problems, 2018, 34, 074001.	1.0	16
18	Efficient penetration of ceric ammonium nitrate oxidant-stabilized gamma-maghemite nanoparticles through the oval and round windows into the rat inner ear as demonstrated by MRI. , 2017, 105, 1883-1891.		18

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19	Assessing Oxidative Stress in Tumors by Measuring the Rate of Hyperpolarized [1-13C]Dehydroascorbic Acid Reduction Using 13C Magnetic Resonance Spectroscopy. Journal of Biological Chemistry, 2017, 292, 1737-1748.	1.6	32
20	Behavioral and stereological characterization of Hdc KO mice: Relation to Tourette syndrome. Journal of Comparative Neurology, 2017, 525, 3476-3487.	0.9	14
21	Analysis of heterogeneity in T2-weighted MR images can differentiate pseudoprogression from progression in glioblastoma. PLoS ONE, 2017, 12, e0176528.	1.1	34
22	Imaging Glycosylation In Vivo by Metabolic Labeling and Magnetic Resonance Imaging. Angewandte Chemie - International Edition, 2016, 55, 1286-1290.	7.2	26
23	Imaging Glycosylation In Vivo by Metabolic Labeling and Magnetic Resonance Imaging. Angewandte Chemie, 2016, 128, 1308-1312.	1.6	8
24	RÃ¼cktitelbild: Imaging Glycosylation In Vivo by Metabolic Labeling and Magnetic Resonance Imaging (Angew. Chem. 4/2016). Angewandte Chemie, 2016, 128, 1592-1592.	1.6	0
25	¹³ C magnetic resonance spectroscopy measurements with hyperpolarized [1â€•¹³ C] pyruvate can be used to detect the expression of transgenic pyruvate decarboxylase activity in vivo. Magnetic Resonance in Medicine, 2016, 76, 391-401.	1.9	8
26	Tailored Dual PEGylation of Inorganic Porous Nanocarriers for Extremely Long Blood Circulation in Vivo. ACS Applied Materials & Interfaces, 2016, 8, 32723-32731.	4.0	39
27	Implantable RF-coil with multiple electrodes for long-term EEG-fMRI monitoring in rodents. Journal of Neuroscience Methods, 2016, 274, 154-163.	1.3	15
28	Effects of fasting on serial measurements of hyperpolarized [1â€•¹³ C]pyruvate metabolism in tumors. NMR in Biomedicine, 2016, 29, 1048-1055.	1.6	18
29	Development of Timd2 as a reporter gene for MRI. Magnetic Resonance in Medicine, 2016, 75, 1697-1707.	1.9	26
30	MRI with hyperpolarised [1-¹³C]pyruvate detects advanced pancreatic preneoplasia prior to invasive disease in a mouse model. Gut, 2016, 65, 465-475.	6.1	71
31	¹³ C magnetic resonance spectroscopic imaging of hyperpolarized [1â€•¹³ C, Uâ€•² H ₅] ethanol oxidation can be used to assess aldehyde dehydrogenase activity in vivo. Magnetic Resonance in Medicine, 2015, 73, 1733-1740.	1.9	21
32	Detection of transgene expression using hyperpolarized ¹³C urea and diffusionâ€•weighted magnetic resonance spectroscopy. Magnetic Resonance in Medicine, 2015, 73, 1401-1406.	1.9	31
33	Carbonic Anhydrase Activity Monitored In Vivo by Hyperpolarized 13C-Magnetic Resonance Spectroscopy Demonstrates Its Importance for pH Regulation in Tumors. Cancer Research, 2015, 75, 4109-4118.	0.4	40
34	Hyperpolarized [U-²H, U-¹³C]Glucose reports on glycolytic and pentose phosphate pathway activity in EL4 tumors and glycolytic activity in yeast cells. Magnetic Resonance in Medicine, 2015, 74, 1543-1547.	1.9	38
35	Amplification of TRIM44: Pairing a Prognostic Target With Potential Therapeutic Strategy. Journal of the National Cancer Institute, 2014, 106, .	3.0	38
36	Quantitation of a spin polarizationâ€•induced nuclear Overhauser effect (SPINOE) between a hyperpolarized 13 Câ€•labeled cell metabolite and water protons. Contrast Media and Molecular Imaging, 2014, 9, 182-186.	0.4	13

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37	Analysis of image heterogeneity using 2D Minkowski functionals detects tumor responses to treatment. Magnetic Resonance in Medicine, 2014, 71, 402-410.	1.9	46
38	In vivo single-shot 13C spectroscopic imaging of hyperpolarized metabolites by spatiotemporal encoding. Journal of Magnetic Resonance, 2014, 240, 8-15.	1.2	38
39	Dual-modality gene reporter for in vivo imaging. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 415-420.	3.3	91
40	Magnetic resonance imaging of tumor glycolysis using hyperpolarized 13C-labeled glucose. Nature Medicine, 2014, 20, 93-97.	15.2	298
41	Hyperpolarized singlet lifetimes of pyruvate in human blood and in the mouse. NMR in Biomedicine, 2013, 26, 1696-1704.	1.6	54
42	Spin echo measurements of the extravasation and tumor cell uptake of hyperpolarized [1â€•13 C]lactate and [1â€•13 C]pyruvate. Magnetic Resonance in Medicine, 2013, 70, 1200-1209.	1.9	45
43	Magnetic resonance imaging with hyperpolarized [1,4- ¹³ C ₂]fumarate allows detection of early renal acute tubular necrosis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13374-13379.	3.3	99
44	Hyperpolarized 13C Spectroscopy Detects Early Changes in Tumor Vasculature and Metabolism after VEGF Neutralization. Cancer Research, 2012, 72, 854-864.	0.4	73
45	Direct Enhancement of Nuclear Singlet Order by Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2012, 134, 7668-7671.	6.6	94
46	Probing Lactate Dehydrogenase Activity in Tumors by Measuring Hydrogen/Deuterium Exchange in Hyperpolarized <scp>l</scp>-[1-¹³C,U-²H]Lactate. Journal of the American Chemical Society, 2012, 134, 4969-4977.	6.6	49
47	Hyperpolarized [1-¹³C]-Ascorbic and Dehydroascorbic Acid: Vitamin C as a Probe for Imaging Redox Status in Vivo. Journal of the American Chemical Society, 2011, 133, 11795-11801.	6.6	177
48	Disruption of mouse Slx4, a regulator of structure-specific nucleases, phenocopies Fanconi anemia. Nature Genetics, 2011, 43, 147-152.	9.4	182
49	Detecting response of rat C6 glioma tumors to radiotherapy using hyperpolarized [1â€¹³C]pyruvate and ¹³C magnetic resonance spectroscopic imaging. Magnetic Resonance in Medicine, 2011, 65, 557-563.	1.9	152
50	Detection of tumor glutamate metabolism in vivo using ¹³C magnetic resonance spectroscopy and hyperpolarized [1â€¹³C]glutamate. Magnetic Resonance in Medicine, 2011, 66, 18-23.	1.9	55
51	Tumor imaging using hyperpolarized ¹³C magnetic resonance spectroscopy. Magnetic Resonance in Medicine, 2011, 66, 505-519.	1.9	229
52	Imaging <scp>pH</scp> with hyperpolarized ¹³C. NMR in Biomedicine, 2011, 24, 1006-1015.	1.6	93
53	Kinetic Modeling of Hyperpolarized 13C Label Exchange between Pyruvate and Lactate in Tumor Cells. Journal of Biological Chemistry, 2011, 286, 24572-24580.	1.6	133
54	Hyperpolarized ¹³C MRI and PET: In Vivo Tumor Biochemistry. Journal of Nuclear Medicine, 2011, 52, 1333-1336.	2.8	52

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55	Magnetization transfer measurements of exchange between hyperpolarized [1-¹³C]pyruvate and [1-¹³C]lactate in a murine lymphoma. Magnetic Resonance in Medicine, 2010, 63, 872-880.	1.9	107
56	Detecting treatment response in a model of human breast adenocarcinoma using hyperpolarised [1-13C]pyruvate and [1,4-13C2]fumarate. British Journal of Cancer, 2010, 103, 1400-1406.	2.9	124
57	Detection of Tumor Response to a Vascular Disrupting Agent by Hyperpolarized 13C Magnetic Resonance Spectroscopy. Molecular Cancer Therapeutics, 2010, 9, 3278-3288.	1.9	66
58	Production of hyperpolarized [1,4- ¹³ C ₂]malate from [1,4- ¹³ C ₂]fumarate is a marker of cell necrosis and treatment response in tumors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19801-19806.	3.3	328
59	Characterization of image heterogeneity using 2D Minkowski functionals increases the sensitivity of detection of a targeted MRI contrast agent. Magnetic Resonance in Medicine, 2009, 61, 1218-1224.	1.9	21
60	Biomedical applications of hyperpolarized 13C magnetic resonance imaging. Progress in Nuclear Magnetic Resonance Spectroscopy, 2009, 55, 285-295.	3.9	121
61	A Comparison between Radiolabeled Fluorodeoxyglucose Uptake and Hyperpolarized 13C-Labeled Pyruvate Utilization as Methods for Detecting Tumor Response to Treatment. Neoplasia, 2009, 11, 574-IN11.	2.3	104
62	¹³C MR spectroscopy measurements of glutaminase activity in human hepatocellular carcinoma cells using hyperpolarized ¹³Câ€labeled glutamine. Magnetic Resonance in Medicine, 2008, 60, 253-257.	1.9	148
63	Magnetic resonance imaging of pH in vivo using hyperpolarized 13C-labelled bicarbonate. Nature, 2008, 453, 940-943.	13.7	796
64	Detection of Cell Death in Tumors by Using MR Imaging and a Gadolinium-based Targeted Contrast Agent. Radiology, 2008, 246, 854-862.	3.6	78
65	Tumor Gene Therapy: Magnetic Resonance Imaging and Magnetic Resonance Spectroscopy. , 2008, , 39-53.		0
66	Enhanced Polyamine Catabolism Alters Homeostatic Control of White Adipose Tissue Mass, Energy Expenditure, and Glucose Metabolism. Molecular and Cellular Biology, 2007, 27, 4953-4967.	1.1	120
67	Low Spin-Lock Field T1 Relaxation in the Rotating Frame as a Sensitive MR Imaging Marker for Gene Therapy Treatment Response in Rat Glioma¹. Radiology, 2007, 243, 796-803.	3.6	32
68	Diazepam binding inhibitor overexpression in mice causes hydrocephalus, decreases plasticity in excitatory synapses and impairs hippocampus-dependent learning. Molecular and Cellular Neurosciences, 2007, 34, 199-208.	1.0	20
69	A Paramagnetic Nanoprobe To Detect Tumor Cell Death Using Magnetic Resonance Imaging. Nano Letters, 2007, 7, 1419-1423.	4.5	29
70	Detecting tumor response to treatment using hyperpolarized 13C magnetic resonance imaging and spectroscopy. Nature Medicine, 2007, 13, 1382-1387.	15.2	825
71	Molecular Imaging of Apoptosis. , 2007, , 183-198.		0
72	Magnetic resonance imaging of functional Schwann cell transplants labelled with magnetic microspheres. NeuroImage, 2006, 31, 172-180.	2.1	37

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73	Status Epilepticus in 12-day-old Rats Leads to Temporal Lobe Neurodegeneration and Volume Reduction: A Histologic and MRI Study. Epilepsia, 2006, 47, 479-488.	2.6	74
74	Metabolic Consequences of p300 Gene Deletion in Human Colon Cancer Cells. Cancer Research, 2006, 66, 7606-7614.	0.4	27
75	Apoptosis detection using magnetic resonance imaging and spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2005, 47, 175-185.	3.9	31
76	Minocycline Protects against Permanent Cerebral Ischemia in Wild Type but Not in Matrix Metalloprotease-9-Deficient Mice. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, 460-467.	2.4	115
77	Long-term protective effect of atorvastatin in permanent focal cerebral ischemia. Brain Research, 2005, 1052, 174-179.	1.1	40
78	1H MRS-visible lipids accumulate during apoptosis of lymphoma cells in vitro and in vivo. Magnetic Resonance in Medicine, 2005, 54, 43-50.	1.9	65
79	Monitoring T-lymphocyte trafficking in tumors undergoing immune rejection. Magnetic Resonance in Medicine, 2005, 54, 1473-1479.	1.9	35
80	Dispersion of cerebral on-resonanceT 1 in the rotating frame (T 1Ï) in global ischaemia. Applied Magnetic Resonance, 2005, 29, 89-106.	0.6	8
81	Tumour Gene Therapy Monitoring Using Magnetic Resonance Imaging and Spectroscopy. Current Gene Therapy, 2005, 5, 685-696.	0.9	11
82	The Link Between Nutritional Status and Insulin Sensitivity Is Dependent on the Adipocyte-Specific Peroxisome Proliferator-Activated Receptor-Â2 Isoform. Diabetes, 2005, 54, 1706-1716.	0.3	157
83	Structurally altered basement membranes and hydrocephalus in a type XVIII collagen deficient mouse line. Human Molecular Genetics, 2004, 13, 2089-2099.	1.4	121
84	Progression of Brain Damage after Status Epilepticus and Its Association with Epileptogenesis: A Quantitative MRI Study in a Rat Model of Temporal Lobe Epilepsy. Epilepsia, 2004, 45, 1024-1034.	2.6	132
85	Water diffusion in a rat glioma during ganciclovir-thymidine kinase gene therapy-induced programmed cell death in vivo: Correlation with cell density. Journal of Magnetic Resonance Imaging, 2004, 19, 389-396.	1.9	57
86	B0dependence of the on-resonance longitudinal relaxation time in the rotating frame (T1Ï) in protein phantoms and rat brain in vivo. Magnetic Resonance in Medicine, 2004, 51, 4-8.	1.9	26
87	Acute cerebral ischemia in rats studied by Carr-Purcell spin-echo magnetic resonance imaging: Assessment of blood oxygenation level-dependent and tissue effects on the transverse relaxation. Magnetic Resonance in Medicine, 2004, 51, 1138-1146.	1.9	14
88	Quantitativet1ÏNMR spectroscopy of rat cerebral metabolites in vivo: Effects of global ischemia. Magnetic Resonance in Medicine, 2004, 51, 875-880.	1.9	13
89	Detection of Apoptosis Using the C2A Domain of Synaptotagmin I. Bioconjugate Chemistry, 2004, 15, 983-987.	1.8	72
90	Superparamagnetic Iron Oxide-Labeled Schwann Cells and Olfactory Ensheathing Cells Can Be Traced In Vivo by Magnetic Resonance Imaging and Retain Functional Properties after Transplantation into the CNS. Journal of Neuroscience, 2004, 24, 9799-9810.	1.7	125

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91	Effects of hematocrit and oxygen saturation level on blood spin-lattice relaxation. Magnetic Resonance in Medicine, 2003, 49, 568-571.	1.9	128
92	Fibroblast growth factorâ€4 induces vascular permeability, angiogenesis, and arteriogenesis in a rabbit hind limb ischemia model. FASEB Journal, 2003, 17, 100-102.	0.2	136
93	Metabolite Changes in BT4C Rat Gliomas Undergoing Ganciclovir-Thymidine Kinase Gene Therapy-induced Programmed Cell Death as Studied by 1H NMR Spectroscopy in Vivo, ex Vivo, and in Vitro. Journal of Biological Chemistry, 2003, 278, 45915-45923.	1.6	66
94	VEGF-D Is the Strongest Angiogenic and Lymphangiogenic Effector Among VEGFs Delivered Into Skeletal Muscle via Adenoviruses. Circulation Research, 2003, 92, 1098-1106.	2.0	374
95	Assignment of 1H nuclear magnetic resonance visible polyunsaturated fatty acids in BT4C gliomas undergoing ganciclovir-thymidine kinase gene therapy-induced programmed cell death. Cancer Research, 2003, 63, 3195-201.	0.4	111
96	Novel magnetic resonance imaging contrasts for monitoring response to gene therapy in rat glioma. Cancer Research, 2003, 63, 7571-4.	0.4	25
97	Â-Amyloid precursor protein transgenic mice that harbor diffuse AÂ deposits but do not form plaques show increased ischemic vulnerability: Role of inflammation. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1610-1615.	3.3	151
98	Expression of Vascular Endothelial Growth Factor and Vascular Endothelial Growth Factor Receptor-2 (KDR/Flk-1) in Ischemic Skeletal Muscle and Its Regeneration. American Journal of Pathology, 2002, 160, 1393-1403.	1.9	168
99	Blood NMR relaxation in the rotating frame: mechanistic implications. Archives of Biochemistry and Biophysics, 2002, 405, 78-86.	1.4	11
100	Expression of Human Apolipoprotein E Downregulates Amyloid Precursor Proteinâ€“Induced Ischemic Susceptibility. Stroke, 2002, 33, 1905-1910.	1.0	12
101	Effects of intracellular pH, blood, and tissue oxygen tension onT1Ïrelaxation in rat brain. Magnetic Resonance in Medicine, 2002, 48, 470-477.	1.9	70
102	The combination of HSV-tk and endostatin gene therapy eradicates orthotopic human renal cell carcinomas in nude mice. Cancer Gene Therapy, 2002, 9, 908-916.	2.2	21
103	Quantitative Assessment of the Balance between Oxygen Delivery and Consumption in the Rat Brain after Transient Ischemia with T2-BOLD Magnetic Resonance Imaging. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 262-270.	2.4	27
104	Quantitative T1Ï•and Magnetization Transfer Magnetic Resonance Imaging of Acute Cerebral Ischemia in the Rat. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 547-558.	2.4	40
105	Proton Exchange as a Relaxation Mechanism for T1 in the Rotating Frame in Native and Immobilized Protein Solutions. Biochemical and Biophysical Research Communications, 2001, 289, 813-818.	1.0	84
106	Use of spin echo T2 BOLD in assessment of cerebral misery perfusion at 1.5 T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2001, 12, 32-39.	1.1	30
107	Use of spin echo T2 BOLD in assessment of cerebral misery perfusion at 1.5 T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2001, 12, 32-39.	1.1	2
108	CerebralT1Ïrelaxation time increases immediately upon global ischemia in the rat independently of blood glucose and anoxic depolarization. Magnetic Resonance in Medicine, 2001, 46, 565-572.	1.9	45

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109	Inhibition of lymphangiogenesis with resulting lymphedema in transgenic mice expressing soluble VEGF receptor-3. Nature Medicine, 2001, 7, 199-205.	15.2	687
110	HSV-tk gene therapy for human renal cell carcinoma in nude mice. Cancer Gene Therapy, 2001, 8, 529-536.	2.2	27
111	A model for gene therapy of human hereditary lymphedema. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 12677-12682.	3.3	538
112	Interrelations ofT1 and diffusion of water in acute cerebral ischemia of the rat. Magnetic Resonance in Medicine, 2000, 44, 833-839.	1.9	40
113	Graded Reduction of Cerebral Blood Flow in Rat as Detected by the Nuclear Magnetic Resonance Relaxation Time T2: A Theoretical and Experimental Approach. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 316-326.	2.4	54
114	Early Detection of Irreversible Cerebral Ischemia in the Rat Using Dispersion of the Magnetic Resonance Imaging Relaxation Time, T1Ï• Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 1457-1466.	2.4	95
115	Monitoring the CNS Pathology in Aspartylglucosaminuria Mice. Journal of Neuropathology and Experimental Neurology, 1998, 57, 1154-1163.	0.9	15
116	Immune-modulating and anti-vascular activities of two xanthenone acetic acid analogues: A comparative study to DMXAA. International Journal of Oncology, 1992, 34, 273.	1.4	3
117	Sensitive, Efficient and Portable Analysis of Molecular Exchange Processes by Hyperpolarized Ultrafast NMR. Angewandte Chemie, 0, , .	1.6	1
118	State Estimation of Time-Varying MRI with Radial Golden Angle Sampling. Journal of Mathematical Imaging and Vision, 0, , .	0.8	0