

Marek Chmelik

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

2,211
citations

218677
26
h-index

223800
46
g-index

52
all docs

52
docs citations

52
times ranked

2760
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Muscle Mitochondrial ATP Synthesis and Glucose Transport/Phosphorylation in Type 2 Diabetes. PLoS Medicine, 2007, 4, e154. | 8.4 | 216 |
| 2 | Readout-segmented Echo-planar Imaging Improves the Diagnostic Performance of Diffusion-weighted MR Breast Examinations at 3.0 T. Radiology, 2012, 263, 64-76. | 7.3 | 180 |
| 3 | Liver ATP Synthesis Is Lower and Relates to Insulin Sensitivity in Patients With Type 2 Diabetes. Diabetes Care, 2011, 34, 448-453. | 8.6 | 177 |
| 4 | Abnormal hepatic energy homeostasis in type 2 diabetes. Hepatology, 2009, 50, 1079-1086. | 7.3 | 166 |
| 5 | High-resolution mapping of human brain metabolites by free induction decay ¹ H MRSI at 7T. NMR in Biomedicine, 2012, 25, 873-882. | 2.8 | 91 |
| 6 | In-vivo 31P-MRS of skeletal muscle and liver: A way for non-invasive assessment of their metabolism. Analytical Biochemistry, 2017, 529, 193-215. | 2.4 | 78 |
| 7 | Metabolic changes in the normal ageing brain: Consistent findings from short and long echo time proton spectroscopy. European Journal of Radiology, 2008, 68, 320-327. | 2.6 | 76 |
| 8 | Short-Term Exercise Training Does Not Stimulate Skeletal Muscle ATP Synthesis in Relatives of Humans With Type 2 Diabetes. Diabetes, 2009, 58, 1333-1341. | 0.6 | 62 |
| 9 | Mapping of brain macromolecules and their use for spectral processing of 1 H-MRSI data with an ultra-short acquisition delay at 7 T. NeuroImage, 2015, 121, 126-135. | 4.2 | 62 |
| 10 | Quantitative ATP synthesis in human liver measured by localized ³¹ P spectroscopy using the magnetization transfer experiment. NMR in Biomedicine, 2008, 21, 437-443. | 2.8 | 61 |
| 11 | Three-dimensional Proton MR Spectroscopic Imaging at 3 T for the Differentiation of Benign and Malignant Breast Lesions. Radiology, 2011, 261, 752-761. | 7.3 | 61 |
| 12 | Fatty Liver Index Predicts Further Metabolic Deteriorations in Women with Previous Gestational Diabetes. PLoS ONE, 2012, 7, e32710. | 2.5 | 49 |
| 13 | Lipid suppression via double inversion recovery with symmetric frequency sweep for robust 2D-GRAPPA-accelerated MRSI of the brain at 7T. NMR in Biomedicine, 2015, 28, 1413-1425. | 2.8 | 48 |
| 14 | (2D-CAIPIRINHA) accelerated MR spectroscopic imaging of the brain at 7T. Magnetic Resonance in Medicine, 2017, 78, 429-440. | 3.0 | 46 |
| 15 | Coil combination of multichannel MRSI data at 7 T: MUSICAL. NMR in Biomedicine, 2013, 26, 1796-1805. | 2.8 | 45 |
| 16 | Impaired insulin stimulation of muscular ATP production in patients with type 1 diabetes. Journal of Internal Medicine, 2011, 269, 189-199. | 6.0 | 42 |
| 17 | Body and Liver Fat Mass Rather Than Muscle Mitochondrial Function Determine Glucose Metabolism in Women With a History of Gestational Diabetes Mellitus. Diabetes Care, 2011, 34, 430-436. | 8.6 | 42 |
| 18 | In vivo ³¹ P spectroscopy by fully adiabatic extended image selected in vivo spectroscopy: A comparison between 3 T and 7 T. Magnetic Resonance in Medicine, 2011, 66, 923-930. | 3.0 | 40 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | <i>In vivo</i> ³¹ P magnetic resonance spectroscopy of the human liver at 7T: an initial experience. <i>NMR in Biomedicine</i> , 2014, 27, 478-485. | 2.8 | 38 |
| 20 | Dynamic ³¹ P-MRSI using spiral spectroscopic imaging can map mitochondrial capacity in muscles of the human calf during plantar flexion exercise at 7T. <i>NMR in Biomedicine</i> , 2016, 29, 1825-1834. | 2.8 | 38 |
| 21 | Depth-resolved surface coil MRS (DRESS)-localized dynamic ³¹ P-MRS of the exercising human gastrocnemius muscle at 7 T. <i>NMR in Biomedicine</i> , 2014, 27, 1346-1352. | 2.8 | 35 |
| 22 | Postprandial and Fasting Hepatic Glucose Fluxes in Long-Standing Type 1 Diabetes. <i>Diabetes</i> , 2011, 60, 1752-1758. | 0.6 | 33 |
| 23 | Interrelation of ³¹ P-MRS metabolism measurements in resting and exercised quadriceps muscle of overweight-to-obese sedentary individuals. <i>NMR in Biomedicine</i> , 2013, 26, 1714-1722. | 2.8 | 29 |
| 24 | Reduced Basal ATP Synthetic Flux of Skeletal Muscle in Patients with Previous Acromegaly. <i>PLoS ONE</i> , 2008, 3, e3958. | 2.5 | 29 |
| 25 | Fully adiabatic ³¹ P 2D-CSI with reduced chemical shift displacement error at 7 T $\hat{=}$ GOIA-1D-1SIS/2D-CSI. <i>Magnetic Resonance in Medicine</i> , 2013, 69, 1233-1244. | 3.0 | 28 |
| 26 | Time-resolved phosphorous magnetization transfer of the human calf muscle at 3T and 7T: A feasibility study. <i>European Journal of Radiology</i> , 2013, 82, 745-751. | 2.6 | 28 |
| 27 | Dynamic Contrast-Enhanced Magnetic Resonance Imaging of Breast Tumors at 3 and 7 T. <i>Investigative Radiology</i> , 2014, 49, 354-362. | 6.2 | 27 |
| 28 | Application of localized ³¹ P MRS saturation transfer at 7 T for measurement of ATP metabolism in the liver: reproducibility and initial clinical application in patients with non-alcoholic fatty liver disease. <i>European Radiology</i> , 2014, 24, 1602-1609. | 4.5 | 27 |
| 29 | Ultrashort-TE stimulated echo acquisition mode (STEAM) improves the quantification of lipids and fatty acid chain unsaturation in the human liver at 7T. <i>NMR in Biomedicine</i> , 2015, 28, 1283-1293. | 2.8 | 27 |
| 30 | Lower Fasting Muscle Mitochondrial Activity Relates to Hepatic Steatosis in Humans. <i>Diabetes Care</i> , 2014, 37, 468-474. | 8.6 | 26 |
| 31 | Dynamic ³¹ P MR spectroscopy of plantar flexion: Influence of ergometer design, magnetic field strength (3 and 7 T), and RF-coil design. <i>Medical Physics</i> , 2015, 42, 1678-1689. | 3.0 | 26 |
| 32 | Skeletal muscle alkaline Pi pool is decreased in overweight-to-obese sedentary subjects and relates to mitochondrial capacity and phosphodiester content. <i>Scientific Reports</i> , 2016, 6, 20087. | 3.3 | 26 |
| 33 | A Single Nucleotide Polymorphism Associates With the Response of Muscle ATP Synthesis to Long-Term Exercise Training in Relatives of Type 2 Diabetic Humans. <i>Diabetes Care</i> , 2012, 35, 350-357. | 8.6 | 25 |
| 34 | Vascular function in obese children with non-alcoholic fatty liver disease. <i>Pediatric Obesity</i> , 2011, 6, 120-127. | 3.2 | 23 |
| 35 | Skeletal Muscle Phosphodiester Content Relates to Body Mass and Glycemic Control. <i>PLoS ONE</i> , 2011, 6, e21846. | 2.5 | 22 |
| 36 | Improved spectral resolution and high reliability of in vivo ¹ H MRS at 7 T allow the characterization of the effect of acute exercise on carnosine in skeletal muscle. <i>NMR in Biomedicine</i> , 2016, 29, 24-32. | 2.8 | 22 |

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|----|--|-----|-----------|
| 37 | In vivo relaxation behavior of liver compounds at 7 tesla, measured by single-voxel proton MR spectroscopy. Journal of Magnetic Resonance Imaging, 2014, 40, 1365-1374. | 3.4 | 19 |
| 38 | Phosphatidylcholine contributes to in vivo ³¹ P MRS signal from the human liver. European Radiology, 2015, 25, 2059-2066. | 4.5 | 19 |
| 39 | Diffusion-weighted imaging of breast tumours at 3 Tesla and 7 Tesla: a comparison. European Radiology, 2016, 26, 1466-1473. | 4.5 | 18 |
| 40 | One-dimensional image-selected in vivo spectroscopy localized phosphorus saturation transfer at 7T. Magnetic Resonance in Medicine, 2014, 72, 1509-1515. | 3.0 | 17 |
| 41 | Absolute Quantification of Phosphorus-Containing Metabolites in the Liver Using ³¹ P MRSI and Hepatic Lipid Volume Correction at 7T Suggests No Dependence on Body Mass Index or Age. Journal of Magnetic Resonance Imaging, 2019, 49, 597-607. | 3.4 | 16 |
| 42 | Flip-angle mapping of ³¹ P coils by steady-state MR spectroscopic imaging. Journal of Magnetic Resonance Imaging, 2014, 40, 391-397. | 3.4 | 14 |
| 43 | Feasibility and repeatability of localized ³¹ P MRS four-angle saturation transfer (FAST) of the human gastrocnemius muscle using a surface coil at 7T. NMR in Biomedicine, 2016, 29, 57-65. | 2.8 | 14 |
| 44 | Cliptin therapy reduces hepatic and myocardial fat in type 2 diabetic patients. European Journal of Clinical Investigation, 2017, 47, 829-838. | 3.4 | 11 |
| 45 | Two-dimensional spectroscopic imaging with combined free induction decay and long-TE acquisition (FID echo spectroscopic imaging, FIDESI) for the detection of intramyocellular lipids in calf muscle at 7 T. NMR in Biomedicine, 2014, 27, 980-987. | 2.8 | 10 |
| 46 | Effect of Rehabilitation on Fatigue Level in Patients with Multiple Sclerosis. Medical Science Monitor, 2018, 24, 5761-5770. | 1.1 | 8 |
| 47 | A systematic review on the use of quantitative imaging to detect cancer therapy adverse effects in normal-appearing brain tissue. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2022, 35, 163-186. | 2.0 | 7 |
| 48 | In Vivo ¹ H MRS Spectroscopy of Biliary Components of Human Gallbladder at 7T. Journal of Magnetic Resonance Imaging, 2021, 53, 98-107. | 3.4 | 3 |
| 49 | Dixon imaging-based partial volume correction improves quantification of choline detected by breast 3D-MRSI. European Radiology, 2015, 25, 830-836. | 4.5 | 2 |
| 50 | Concentration of Gallbladder Phosphatidylcholine in Cholangiopathies: A Phosphorus- ³¹ Magnetic Resonance Spectroscopy Pilot Study. Journal of Magnetic Resonance Imaging, 2021, , . | 3.4 | 2 |
| 51 | Ankylosing spondylitis on unidentified individual from early modern times found in reformed church (Silická Brezová, Slovakia): a case-based review. Rheumatology International, 0, , . | 3.0 | 0 |