Martin Krssak

List of Publications by Year
in descending order

122 papers	7,383 citations	94433 37 h-index	56724 83 g-index
126 all docs	126 docs citations	126 times ranked	10329 citing authors

#	Article	IF	Citations
1	Effects of Short- and Long-Term Aerobic-Strength Training and Determinants of Walking Speed in the Elderly. Gerontology, 2022, 68, 151-161.	2.8	1
2	Evaluation of a single-breath-hold radial turbo-spin-echo sequence for T2 mapping of the liver at 3T. European Radiology, 2022, 32, 3388-3397.	4.5	5
3	Proton magnetic resonance spectroscopy in skeletal muscle: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4266.	2.8	39
4	In Vivo1H MRSpectroscopy of Biliary Components of Human Gallbladder at 7T. Journal of Magnetic Resonance Imaging, 2021, 53, 98-107.	3.4	3
5	Simultaneous Multiple Resonance Frequency imaging (SMURF): Fatâ€water imaging using multiâ€band principles. Magnetic Resonance in Medicine, 2021, 85, 1379-1396.	3.0	8
6	Terminology and concepts for the characterization of in vivo MR spectroscopy methods and MR spectra: Background and experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4347.	2.8	69
7	Open-label phaseÂII study evaluating safety and efficacy of the non-steroidal farnesoid X receptor agonist PX-104 in non-alcoholic fatty liver disease. Wiener Klinische Wochenschrift, 2021, 133, 441-451.	1.9	27
8	Combined <scp>exenatide</scp> and <scp>dapagliflozin</scp> has no additive effects on reduction of hepatocellular lipids despite better glycaemic control in patients with type 2 diabetes mellitus treated with metformin: <scp>EXENDA</scp>, a 24â€week, prospective, randomized, placeboâ€controlled pilot trial. Diabetes, Obesity and Metabolism, 2021, 23, 1129-1139.	4.4	29
9	Minimum Reporting Standards for in vivo Magnetic Resonance Spectroscopy (MRSinMRS): Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4484.	2.8	144
10	Safety and image quality of cardiovascular magnetic resonance imaging in patients with retained epicardial pacing wires after heart transplantation. Journal of Cardiovascular Magnetic Resonance, 2021, 23, 24.	3.3	4
11	Feasibility of Hepatic Fat Quantification Using Proton Density Fat Fraction by Multi-Echo Chemical-Shift-Encoded MRI at 7T. Frontiers in Physics, 2021, 9, 665562.	2.1	0
12	Concentration of Gallbladder Phosphatidylcholine in Cholangiopathies: A Phosphorusâ€31 Magnetic Resonance Spectroscopy Pilot Study. Journal of Magnetic Resonance Imaging, 2021, , .	3.4	2
13	³¹P magnetic resonance spectroscopy in skeletal muscle: Experts' consensus recommendations. NMR in Biomedicine, 2021, 34, e4246.	2.8	81
14	3D localized lactate detection in muscle tissue using doubleâ€quantum filtered 1 H MRS with adiabatic refocusing pulses at 7ÂT. Magnetic Resonance in Medicine, 2021, , .	3.0	2
15	Gluconeogenesis, But Not Glycogenolysis, Contributes to the Increase in Endogenous Glucose Production by SGLT-2 Inhibition. Diabetes Care, 2021, 44, 541-548.	8.6	16
16	In Vitro 31P MR Chemical Shifts of In Vivo-Detectable Metabolites at 3T as a Basis Set for a Pilot Evaluation of Skeletal Muscle and Liver 31P Spectra with LCModel Software. Molecules, 2021, 26, 7571.	3.8	5
17	Metabolic effects of a prolonged, very-high-dose dietary fructose challenge in healthy subjects. American Journal of Clinical Nutrition, 2020, 111, 369-377.	4.7	22
18	Muscleâ€Specific Relation of Acetylcarnitine and Intramyocellular Lipids to Chronic Hyperglycemia: A Pilot 3â€T ¹H MRS Study. Obesity, 2020, 28, 1405-1411.	3.0	7

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19	Effects of Thyroid Function on Phosphodiester Concentrations in Skeletal Muscle and Liver: An In Vivo NMRS Study. Journal of Clinical Endocrinology and Metabolism, 2020, 105, e4866-e4874.	3.6	6
20	Multinuclear MRS at 7T Uncovers Exercise Driven Differences in Skeletal Muscle Energy Metabolism Between Young and Seniors. Frontiers in Physiology, 2020, 11, 644.	2.8	10
21	Tenascinâ€€ aggravates ventricular dilatation and angiotensinâ€€converting enzyme activity after myocardial infarction in mice. ESC Heart Failure, 2020, 7, 2113-2122.	3.1	17
22	Low-level fat fraction quantification at 3ÂT: comparative study of different tools for waterâ€“fat reconstruction and MR spectroscopy. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 455-468.	2.0	3
23	Increased ATP synthesis might counteract hepatic lipid accumulation in acromegaly. JCI Insight, 2020, 5, .	5.0	21
24	Acute and regular exercise distinctly modulate serum, plasma and skeletal muscle BDNF in the elderly. Neuropeptides, 2019, 78, 101961.	2.2	41
25	Brain leptin reduces liver lipids by increasing hepatic triglyceride secretion and lowering lipogenesis. Nature Communications, 2019, 10, 2717.	12.8	70
26	Plasma renin levels are associated with cardiac function in primary adrenal insufficiency. Endocrine, 2019, 65, 399-407.	2.3	7
27	The impact of age on cardiac function and extracellular matrix component expression in adverse post-infarction remodeling in mice. Experimental Gerontology, 2019, 119, 193-202.	2.8	7
28	Reduced hepatocellular lipid accumulation and energy metabolism in patients with long standing type 1 diabetes mellitus. Scientific Reports, 2019, 9, 2576.	3.3	13
29	Antisense Inhibition of Glucagon Receptor by IONIS-GCGRRx Improves Type 2 Diabetes Without Increase in Hepatic Glycogen Content in Patients With Type 2 Diabetes on Stable Metformin Therapy. Diabetes Care, 2019, 42, 585-593.	8.6	37
30	MR-Based Metabolic Characterization of Skeletal Muscle: Methods and Applications. , 2019, , .		0
31	Absolute Quantification of Phosphorâ€Containing Metabolites in the Liver Using ³¹P 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
32	Ultralong TE In Vivo 1 H MR Spectroscopy of Omegaâ€3 Fatty Acids in Subcutaneous Adipose Tissue at 7 T. Journal of Magnetic Resonance Imaging, 2019, 50, 71-82.	3.4	5
33	MR compatible ergometers for dynamic ³¹P MRS. Journal of Applied Biomedicine, 2019, 17, 91-98.	1.7	4
34	Evaluation of cerebral aneurysm wall thickness in experimental aneurysms: comparison of 3T-MR imaging with direct microscopic measurements. Acta Neurochirurgica, 2018, 160, 759-759.	1.7	1
35	Tenascin-C promotes chronic pressure overload-induced cardiac dysfunction, hypertrophy and myocardial fibrosis. Journal of Hypertension, 2018, 36, 847-856.	0.5	39
36	Differences in Muscle Metabolism Between Triathletes and Normally Active Volunteers Investigated Using Multinuclear Magnetic Resonance Spectroscopy at 7T. Frontiers in Physiology, 2018, 9, 300.	2.8	17

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37	Proton-decoupled carbon magnetic resonance spectroscopy in human calf muscles at 7 T using a multi-channel radiofrequency coil. Scientific Reports, 2018, 8, 6211.	3.3	10
38	Heart, lipids and hormones. Endocrine Connections, 2017, 6, R59-R69.	1.9	13
39	Ultraâ€highâ€field magnetic resonance spectroscopy in nonâ€alcoholic fatty liver disease: Novel mechanistic and diagnostic insights of energy metabolism in nonâ€alcoholic steatohepatitis and advanced fibrosis. Liver International, 2017, 37, 1544-1553.	3.9	35
40	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
41	[P2â€“021]: EFFECTS OF ENDURANCEâ€STRENGTH TRAINING ON MOTOR FUNCTIONS, COGNITION AND GLUCOSE METABOLISM IN PATIENTS WITH PARKINSON'S DISEASE. Alzheimer's and Dementia, 2017, 13, P612.	0.8	0
42	Chronic Intranasal Insulin Does Not Affect Hepatic Lipids but Lowers Circulating BCAAs in Healthy Male Subjects. Journal of Clinical Endocrinology and Metabolism, 2017, 102, 1325-1332.	3.6	11
43	Detection and Alterations of Acetylcarnitine in Human Skeletal Muscles by 1H MRS at 7 T. Investigative Radiology, 2017, 52, 412-418.	6.2	13
44	Aerobic-Strength Exercise Improves Metabolism and Clinical State in Parkinsonâ€™s Disease Patients. Frontiers in Neurology, 2017, 8, 698.	2.4	23
45	Effects of carnosine supplementation on glucose metabolism: Pilot clinical trial. Obesity, 2016, 24, 1027-1034.	3.0	116
46	Dynamic PCr and pH imaging of human calf muscles during exercise and recovery using ³¹P gradientâ€Echo MRI at 7 Tesla. Magnetic Resonance in Medicine, 2016, 75, 2324-2331.	3.0	31
47	Skeletal muscle alkaline Pi pool is decreased in overweight-to-obese sedentary subjects and relates to mitochondrial capacity and phosphodiester content. Scientific Reports, 2016, 6, 20087.	3.3	26
48	Very large and giant microsurgical bifurcation aneurysms in rabbits: Proof of feasibility and comparability using computational fluid dynamics and biomechanical testing. Journal of Neuroscience Methods, 2016, 268, 7-13.	2.5	5
49	Glucose uptake saturation explains glucose kinetics profiles measured by different tests. American Journal of Physiology - Endocrinology and Metabolism, 2016, 311, E346-E357.	3.5	7
50	Feasibility and repeatability of localized 31 Pâ€MRS fourâ€angle saturation transfer (FAST) of the human gastrocnemius muscle using a surface coil at 7â€‰T. NMR in Biomedicine, 2016, 29, 57-65.	2.8	14
51	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. NMR in Biomedicine, 2016, 29, 24-32.	2.8	22
52	Dynamic ³¹Pâ€“MRSI using spiral spectroscopic imaging can map mitochondrial capacity in muscles of the human calf during plantar flexion exercise at 7ÂT. NMR in Biomedicine, 2016, 29, 1825-1834.	2.8	38
53	Insulin Regulates Hepatic Triglyceride Secretion and Lipid Content via Signaling in the Brain. Diabetes, 2016, 65, 1511-1520.	0.6	49
54	Pericardial- Rather than Intramyocardial Fat Is Independently Associated with Left Ventricular Systolic Heart Function in Metabolically Healthy Humans. PLoS ONE, 2016, 11, e0151301.	2.5	12

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55	In vivo and ex vivo functional characterization of left ventricular remodelling after myocardial infarction in mice. ESC Heart Failure, 2015, 2, 171-177.	3.1	6
56	Dynamic ³¹P MR spectroscopy of plantar flexion: Influence of ergometer design, magnetic field strength (3 and 7 T), and RFâ€coil design. Medical Physics, 2015, 42, 1678-1689.	3.0	26
57	Ultrashort-TE stimulated echo acquisition mode (STEAM) improves the quantification of lipids and fatty acid chain unsaturation in the human liver at 7â€‰T. NMR in Biomedicine, 2015, 28, 1283-1293.	2.8	27
58	CROP â€“ The Clinico-Radiologico-Ophthalmological Paradox in Multiple Sclerosis: Are Patterns of Retinal and MRI Changes Heterogeneous and Thus Not Predictable?. PLoS ONE, 2015, 10, e0142272.	2.5	7
59	Free fatty acid availability is closely related to myocardial lipid storage and cardiac function in hypoglycemia counterregulation. American Journal of Physiology - Endocrinology and Metabolism, 2015, 308, E631-E640.	3.5	10
60	Use of diagnostic dynamic contrast-enhanced (DCE)-MRI for targeting of soft tissue tumour biopsies at 3T: preliminary results. European Radiology, 2015, 25, 2041-2048.	4.5	36
61	Phosphatidylcholine contributes to in vivo 31P MRS signal from the human liver. European Radiology, 2015, 25, 2059-2066.	4.5	19
62	Biodegradable, thermoplastic polyurethane grafts for small diameter vascular replacements. Acta Biomaterialia, 2015, 11, 104-113.	8.3	107
63	Diagnosis of renal tumors by in vivo proton magnetic resonance spectroscopy. World Journal of Urology, 2015, 33, 17-23.	2.2	11
64	No Evidence of Ectopic Lipid Accumulation in the Pathophysiology of the Acromegalic Cardiomyopathy. Journal of Clinical Endocrinology and Metabolism, 2014, 99, 4299-4306.	3.6	41
65	Cardiometabolic Phenotyping of Patients With Familial Hypocalcuric Hypercalcemia. Journal of Clinical Endocrinology and Metabolism, 2014, 99, E1721-E1726.	3.6	19
66	Intracellular lipid accumulation and shift during diabetes progression. Wiener Medizinische Wochenschrift, 2014, 164, 320-329.	1.1	17
67	Novel labeling approaches for the assessment of human hepatic metabolism byin vivomagnetic resonance spectroscopy. Hepatology, 2014, 59, 2077-2079.	7.3	1
68	Depthâ€resolved surface coil MRS (DRESS)â€localized dynamic ³¹Pâ€MRS of the exercising human gastrocnemius muscle at 7 T. NMR in Biomedicine, 2014, 27, 1346-1352.	2.8	35
69	In vivo³¹P magnetic resonance spectroscopy of the human liver at 7â€‰T: an initial experience. NMR in Biomedicine, 2014, 27, 478-485.	2.8	38
70	Lower Fasting Muscle Mitochondrial Activity Relates to Hepatic Steatosis in Humans. Diabetes Care, 2014, 37, 468-474.	8.6	26
71	Pathophysiological rat model of vascular dementia: Magnetic resonance spectroscopy, microimaging and behavioral study. Brain Research, 2014, 1568, 10-20.	2.2	5
72	Effects of obesity, diabetes and exercise on Fndc5 gene expression and irisin release in human skeletal muscle and adipose tissue: in vivo and in vitro studies. Journal of Physiology, 2014, 592, 1091-1107.	2.9	329

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73	Flipâ€angle mapping of ³¹P coils by steadyâ€state MR spectroscopic imaging. Journal of Magnetic Resonance Imaging, 2014, 40, 391-397.	3.4	14
74	Twoâ€dimensional spectroscopic imaging with combined free induction decay and longâ€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
75	Levothyroxine Replacement in Hypothyroid Humans Reduces Myocardial Lipid Load and Improves Cardiac Function. Journal of Clinical Endocrinology and Metabolism, 2014, 99, E2341-E2346.	3.6	21
76	Application of localized 31P 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. European Radiology, 2014, 24, 1602-1609.	4.5	27
77	Evaluation of cerebral aneurysm wall thickness in experimental aneurysms: Comparison of 3T-MR imaging with direct microscopic measurements. Acta Neurochirurgica, 2014, 156, 27-34.	1.7	12
78	Single-Dose GSTP1 Prevents Infarction-Induced Heart Failure. Journal of Cardiac Failure, 2014, 20, 135-145.	1.7	7
79	Oneâ€dimensional imageâ€selected in vivo spectroscopy localized phosphorus saturation transfer at 7T. Magnetic Resonance in Medicine, 2014, 72, 1509-1515.	3.0	17
80	In vivo relaxation behavior of liver compounds at 7 tesla, measured by singleâ€voxel proton MR spectroscopy. Journal of Magnetic Resonance Imaging, 2014, 40, 1365-1374.	3.4	19
81	Hepatic Rather Than Cardiac Steatosis Relates to Glucose Intolerance in Women with Prior Gestational Diabetes. PLoS ONE, 2014, 9, e91607.	2.5	6
82	Time-resolved phosphorous magnetization transfer of the human calf muscle at 3T and 7T: A feasibility study. European Journal of Radiology, 2013, 82, 745-751.	2.6	28
83	Interrelation of ³¹Pâ€MRS metabolism measurements in resting and exercised quadriceps muscle of overweightâ€toâ€obese sedentary individuals. NMR in Biomedicine, 2013, 26, 1714-1722.	2.8	29
84	Short-Term Hyperinsulinemia and Hyperglycemia Increase Myocardial Lipid Content in Normal Subjects. Diabetes, 2012, 61, 1210-1216.	0.6	47
85	Two forms of iron as an intrinsic contrast agent in the basal ganglia of PKAN patients. Contrast Media and Molecular Imaging, 2012, 7, 509-515.	0.8	13
86	Hepatic steatosis assessment with 1H-spectroscopy and chemical shift imaging at 3.0T before hepatic surgery: Reliable enough for making clinical decisions?. European Journal of Radiology, 2012, 81, 2990-2995.	2.6	15
87	Effects of Insulin Therapy on Myocardial Lipid Content and Cardiac Geometry in Patients with Type-2 Diabetes Mellitus. PLoS ONE, 2012, 7, e50077.	2.5	25
88	Skeletal Muscle Phosphodiester Content Relates to Body Mass and Glycemic Control. PLoS ONE, 2011, 6, e21846.	2.5	22
89	Strategies for the covalent conjugation of a bifunctional chelating agent to albumin: Synthesis and characterization of potential MRI contrast agents. Journal of Inorganic Biochemistry, 2011, 105, 250-255.	3.5	9
90	Visualisation of treatment response in a case of cerebrotendinous xanthomatosis. Journal of Neurology, Neurosurgery and Psychiatry, 2011, 82, 703-704.	1.9	8

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91	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
92	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
93	Value of 1H-magnetic resonance spectroscopy chemical shift imaging for detection of anaplastic foci in diffusely infiltrating gliomas with non-significant contrast-enhancement. Journal of Neurology, Neurosurgery and Psychiatry, 2011, 82, 512-520.	1.9	38
94	5â€Aminolevulinic acid is a promising marker for detection of anaplastic foci in diffusely infiltrating gliomas with nonsignificant contrast enhancement. Cancer, 2010, 116, 1545-1552.	4.1	199
95	Reduced NAA-Levels in the NAWM of Patients with MS Is a Feature of Progression. A Study with Quantitative Magnetic Resonance Spectroscopy at 3 Tesla. PLoS ONE, 2010, 5, e11625.	2.5	68
96	Non-invasive assessment of hepatic fat accumulation in chronic hepatitis C by 1H magnetic resonance spectroscopy. European Journal of Radiology, 2010, 74, e60-e66.	2.6	50
97	Effects of High-Dose Simvastatin Therapy on Glucose Metabolism and Ectopic Lipid Deposition in Nonobese Type 2 Diabetic Patients. Diabetes Care, 2009, 32, 209-214.	8.6	49
98	Abnormal hepatic energy homeostasis in type 2 diabetes. Hepatology, 2009, 50, 1079-1086.	7.3	166
99	Magnetic resonance spectroscopy of the fetal brain. Prenatal Diagnosis, 2009, 29, 434-441.	2.3	43
100	In utero tractography of fetal white matter development. NeuroImage, 2008, 43, 213-224.	4.2	198
101	BIBF 1120: Triple Angiokinase Inhibitor with Sustained Receptor Blockade and Good Antitumor Efficacy. Cancer Research, 2008, 68, 4774-4782.	0.9	929
102	Muscle Mitochondrial ATP Synthesis and Glucose Transport/Phosphorylation in Type 2 Diabetes. PLoS Medicine, 2007, 4, e154.	8.4	216
103	Direct noninvasive quantification of lactate and high energy phosphates simultaneously in exercising human skeletal muscle by localized magnetic resonance spectroscopy. Magnetic Resonance in Medicine, 2007, 57, 654-660.	3.0	39
104	BI 2536, a Potent and Selective Inhibitor of Polo-like Kinase 1, Inhibits Tumor Growth In Vivo. Current Biology, 2007, 17, 316-322.	3.9	748
105	Increased lipid availability impairs insulin-stimulated ATP synthesis in human skeletal muscle. Diabetes, 2006, 55, 136-40.	0.6	89
106	The Role of Intramyocellular Lipids during Hypoglycemia in Patients with Intensively Treated Type 1 Diabetes. Journal of Clinical Endocrinology and Metabolism, 2005, 90, 5559-5565.	3.6	24
107	Alterations in Postprandial Hepatic Glycogen Metabolism in Type 2 Diabetes. Diabetes, 2004, 53, 3048-3056.	0.6	267
108	The Role of Lipid Accumulation in Liver and Muscle for Insulin Resistance and Type 2 Diabetes Mellitus in Humans. Reviews in Endocrine and Metabolic Disorders, 2004, 5, 127-134.	5.7	57

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109	Relaxation times of31P-metabolites in human calf muscle at 3 T. Magnetic Resonance in Medicine, 2003, 49, 620-625.	3.0	47
110	Increased Intramyocellular Lipid Concentration Identifies Impaired Glucose Metabolism in Women With Previous Gestational Diabetes. Diabetes, 2003, 52, 244-251.	0.6	132
111	Hepatic Glycogen Metabolism in Type 1 Diabetes After Long-Term Near Normoglycemia. Diabetes, 2002, 51, 49-54.	0.6	77
112	Reduction of Hepatic Glycogen Synthesis and Breakdown in Patients with Agenesis of the Dorsal Pancreas. Journal of Clinical Endocrinology and Metabolism, 2002, 87, 4678-4685.	3.6	12
113	Effects of Insulin Treatment in Type 2 Diabetic Patients on Intracellular Lipid Content in Liver and Skeletal Muscle. Diabetes, 2002, 51, 3025-3032.	0.6	157
114	Mechanism of Amino Acid-Induced Skeletal Muscle Insulin Resistance in Humans. Diabetes, 2002, 51, 599-605.	0.6	338
115	Free Fatty Acids Inhibit the Glucose-Stimulated Increase of Intramuscular Glucose-6-Phosphate Concentration in Humans1. Journal of Clinical Endocrinology and Metabolism, 2001, 86, 2153-2160.	3.6	74
116	Intramuscular Glycogen and Intramyocellular Lipid Utilization during Prolonged Exercise and Recovery in Man: A 13C and 1H Nuclear Magnetic Resonance Spectroscopy Study1. Journal of Clinical Endocrinology and Metabolism, 2000, 85, 748-754.	3.6	150
117	Contributions of net hepatic glycogenolysis and gluconeogenesis to glucose production in cirrhosis. American Journal of Physiology - Endocrinology and Metabolism, 1999, 276, E529-E535.	3.5	57
118	Impaired Glucose Transport as a Cause of Decreased Insulin-Stimulated Muscle Glycogen Synthesis in Type 2 Diabetes. New England Journal of Medicine, 1999, 341, 240-246.	27.0	562
119	Three-dimensional reconstruction of the liver venous system using the preservation solution as contrast agent. Journal of Magnetic Resonance Imaging, 1997, 7, 600-602.	3.4	1
120	Multinuclear Magnetic Resonance Spectroscopy of Human Skeletal Muscle Metabolism in Training and Disease. , 0, , .		1
121	Assessment of Metabolic Fluxes byIn Vivo MR Spectroscopy. , 0, , 193-222.		0
122	Assessment of Body Fat Content and Distribution. , 0, , 237-263.		0