

Kwok-Shing Chan

List of Publications by Year in descending order

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Version: 2024-02-01

115
papers

2,271
citations

270111

25
h-index

312153

41
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121
all docs

121
docs citations

121
times ranked

2549
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of renal oxygenation by BOLD-MRI in high-risk patients with type 2 diabetes and matched controls. <i>Nephrology Dialysis Transplantation</i> , 2023, 38, 691-699.	0.4	4
2	Consensus-Based Technical Recommendations for Clinical Translation of Renal Phase Contrast MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2022, 55, 323-335.	1.9	22
3	Remodeling after myocardial infarction and effects of heart failure treatment investigated by hyperpolarized [¹³ C]pyruvate magnetic resonance spectroscopy. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 57-69.	1.9	0
4	The number of glomeruli and pyruvate metabolism is not strongly coupled in the healthy rat kidney. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 896-903.	1.9	1
5	Concentration-dependent effects of dichloroacetate in type 2 diabetic hearts assessed by hyperpolarized [¹³ C]pyruvate magnetic resonance imaging. <i>NMR in Biomedicine</i> , 2022, 35, e4678.	1.6	1
6	Sodium MRI of the Renal Corticomedullary Gradient. <i>Radiology</i> , 2022, , 213007.	3.6	0
7	Hyperpolarized carbon 13 MRI in liver diseases: Recent advances and future opportunities. <i>Liver International</i> , 2022, 42, 973-983.	1.9	7
8	Imaging white matter microstructure with gradient-echo phase imaging: Is ex vivo imaging with formalin-fixed tissue a good approximation of the in vivo brain?. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 380-390.	1.9	5
9	Initial Experience on Hyperpolarized [1- ¹³ C]Pyruvate MRI Multicenter Reproducibility—Are Multicenter Trials Feasible?. <i>Tomography</i> , 2022, 8, 585-595.	0.8	8
10	Hyperpolarized ¹³ C MRI Reveals Large Changes in Pyruvate Metabolism During Digestion in Snakes. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 890-900.	1.9	3
11	Lactate saturation limits bicarbonate detection in hyperpolarized ¹³ C-pyruvate MRI of the brain. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 1170-1179.	1.9	8
12	SEPIA—Susceptibility mapping pipeline tool for phase images. <i>NeuroImage</i> , 2021, 227, 117611.	2.1	32
13	Hyperpolarized Carbon (13C) MRI of the Kidneys: Basic Concept. <i>Methods in Molecular Biology</i> , 2021, 2216, 267-278.	0.4	1
14	Di-chromatic interpolation of magnetic resonance metabolic images. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2021, 34, 57-72.	1.1	3
15	QSM reconstruction challenge 2.0: A realistic in silico head phantom for MRI data simulation and evaluation of susceptibility mapping procedures. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 526-542.	1.9	34
16	Comprehensive Literature Review of Hyperpolarized Carbon-13 MRI: The Road to Clinical Application. <i>Metabolites</i> , 2021, 11, 219.	1.3	20
17	Variable flip angle echo planar time-resolved imaging (vFA-EPTI) for fast high-resolution gradient echo myelin water imaging. <i>NeuroImage</i> , 2021, 232, 117897.	2.1	22
18	Metabolic MRI with hyperpolarized [¹³ C]pyruvate separates benign oligemia from infarcting penumbra in porcine stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 2916-2927.	2.4	10

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19	Hyperpolarized pyruvate to measure the influence of PKM2 activation on glucose metabolism in the healthy kidney. <i>NMR in Biomedicine</i> , 2021, 34, e4583.	1.6	2
20	Assessing cortical cerebral microinfarcts on iron-sensitive MRI in cerebral small vessel disease. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 3391-3399.	2.4	4
21	Decoding the microstructural properties of white matter using realistic models. <i>NeuroImage</i> , 2021, 237, 118138.	2.1	13
22	Renal MR Fingerprinting: A Novel Solution to a Complex Problem. <i>Radiology</i> , 2021, 300, 388-389.	3.6	0
23	Sodium (²³ Na) MRI of the Kidney: Basic Concept. <i>Methods in Molecular Biology</i> , 2021, 2216, 257-266.	0.4	5
24	Analysis Protocol for Renal Sodium (²³ Na) MR Imaging. <i>Methods in Molecular Biology</i> , 2021, 2216, 689-696.	0.4	3
25	Hyperpolarized Carbon (¹³ C) MRI of the Kidney: Experimental Protocol. <i>Methods in Molecular Biology</i> , 2021, 2216, 481-493.	0.4	0
26	Analysis Methods for Hyperpolarized Carbon (¹³ C) MRI of the Kidney. <i>Methods in Molecular Biology</i> , 2021, 2216, 697-710.	0.4	0
27	Sodium (²³ Na) MRI of the Kidney: Experimental Protocol. <i>Methods in Molecular Biology</i> , 2021, 2216, 473-480.	0.4	2
28	Hyperpolarized [¹³ C]pyruvate combined with the hyperinsulinaemic euglycaemic and hypoglycaemic clamp technique in skeletal muscle in a large animal model. <i>Experimental Physiology</i> , 2021, 106, 2412-2422.	0.9	1
29	Development of a human heart-sized perfusion system for metabolic imaging studies using hyperpolarized [¹³ C]pyruvate MRI. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 3510-3521.	1.9	3
30	Pilot Study Experiences With Hyperpolarized [¹³ C]pyruvate MRI in Pancreatic Cancer Patients. <i>Journal of Magnetic Resonance Imaging</i> , 2020, 51, 961-963.	1.9	45
31	Technical recommendations for clinical translation of renal MRI: a consensus project of the Cooperation in Science and Technology Action PARENCHIMA. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 131-140.	1.1	44
32	Consensus-based technical recommendations for clinical translation of renal diffusion-weighted MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 177-195.	1.1	61
33	Detection of acute kidney injury with hyperpolarized [¹³ C, ¹⁵ N]Urea and multiexponential relaxation modeling. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 943-949.	1.9	9
34	Special issue on magnetic resonance imaging biomarkers of renal disease. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 1-2.	1.1	1
35	Consensus-based technical recommendations for clinical translation of renal ASL MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 141-161.	1.1	80
36	Hyperpolarised ¹³ C-MRI metabolic and functional imaging: an emerging renal MR diagnostic modality. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 23-32.	1.1	9

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37	Consensus-based technical recommendations for clinical translation of renal BOLD MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 199-215.	1.1	68
38	Autonomous cryogenic RF receive coil for ¹³ C imaging of rodents at 3 T. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 497-508.	1.9	9
39	Consensus-based technical recommendations for clinical translation of renal T1 and T2 mapping MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2020, 33, 163-176.	1.1	52
40	Multi-site benchmarking of clinical ¹³ C RF coils at 3T. <i>Journal of Magnetic Resonance</i> , 2020, 318, 106798.	1.2	10
41	Multi-compartment relaxometry and diffusion informed myelin water imaging – Promises and challenges of new gradient echo myelin water imaging methods. <i>NeuroImage</i> , 2020, 221, 117159.	2.1	22
42	The hemodynamic and metabolic effects of spironolactone treatment in acute kidney injury assessed by hyperpolarized MRI. <i>NMR in Biomedicine</i> , 2020, 33, e4371.	1.6	5
43	Noninvasive Assessment of Fibrosis Following Ischemia/Reperfusion Injury in Rodents Utilizing Na <i>Magnetic Resonance Imaging. Pharmaceutics</i> , 2020, 12, 775.	2.0	5
44	Increasing carbohydrate oxidation improves contractile reserves and prevents hypertrophy in porcine right heart failure. <i>Scientific Reports</i> , 2020, 10, 8158.	1.6	24
45	Hyperpolarized [¹³ C] alanine production: A novel imaging biomarker of renal fibrosis. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2063-2073.	1.9	7
46	Metabolic reprogramming associated with progression of renal ischemia reperfusion injury assessed with hyperpolarized [¹³ C]pyruvate. <i>Scientific Reports</i> , 2020, 10, 8915.	1.6	8
47	Hyperpolarized [1,4- ¹³ C]fumarate imaging detects microvascular complications and hypoxia mediated cell death in diabetic nephropathy. <i>Scientific Reports</i> , 2020, 10, 9650.	1.6	11
48	Graft assessment of the ex vivo perfused porcine kidney using hyperpolarized [¹³ C]pyruvate. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2645-2655.	1.9	9
49	Creating a clinical platform for carbon-13 studies using the sodium-23 and proton resonances. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 1817-1827.	1.9	24
50	Visualization of sodium dynamics in the kidney by magnetic resonance imaging in a multi-site study. <i>Kidney International</i> , 2020, 98, 1174-1178.	2.6	17
51	Glucose metabolism in brown adipose tissue determined by deuterium metabolic imaging in rats. <i>International Journal of Obesity</i> , 2020, 44, 1417-1427.	1.6	23
52	Organ-specific metabolic profiles of the liver and kidney during brain death and afterwards during normothermic machine perfusion of the kidney. <i>American Journal of Transplantation</i> , 2020, 20, 2425-2436.	2.6	12
53	Sex Differences in Kidney Function and Metabolism Assessed Using Hyperpolarized [¹³ C]Pyruvate Interleaved Spectroscopy and Nonspecific Imaging. <i>Tomography</i> , 2020, 6, 5-13.	0.8	8
54	Cardiac pH-Imaging With Hyperpolarized MRI. <i>Frontiers in Cardiovascular Medicine</i> , 2020, 7, 603674.	1.1	4

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55	Resolving the natural myocardial remodelling brought upon by cardiac contraction; a porcine ex-vivo cardiovascular magnetic resonance study of the left and right ventricle. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2019, 21, 35.	1.6	13
56	Metabolic consequences of lactate dehydrogenase inhibition by oxamate in hyperglycemic proximal tubular cells. <i>Experimental Cell Research</i> , 2019, 378, 51-56.	1.2	13
57	Glucagon infusion alters the hyperpolarized ¹³ C-urea renal hemodynamic signature. <i>NMR in Biomedicine</i> , 2019, 32, e4028.	1.6	7
58	Hyperpolarized 13C MRI: Path to Clinical Translation in Oncology. <i>Neoplasia</i> , 2019, 21, 1-16.	2.3	316
59	Metabolic and Structural Skeletal Muscle Health in Systemic Lupus Erythematosus-Related Fatigue: A Multimodal Magnetic Resonance Imaging Study. <i>Arthritis Care and Research</i> , 2019, 71, 1640-1646.	1.5	8
60	Hyperpolarized [¹³ C]pyruvate MRI can image the metabolic shift in cardiac metabolism between the fasted and fed state in a porcine model. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 2655-2665.	1.9	9
61	Assessment of mouse liver [¹³ C]pyruvate metabolism by dynamic hyperpolarized MRS. <i>Journal of Endocrinology</i> , 2019, 242, 251-260.	1.2	7
62	High Intrarenal Lactate Production Inhibits the Renal Pseudohypoxic Response to Acutely Induced Hypoxia in Diabetes. <i>Tomography</i> , 2019, 5, 239-247.	0.8	4
63	Ex Vivo Human Placenta Perfusion, Metabolic and Functional Imaging for Obstetric Research: A Feasibility Study. <i>Tomography</i> , 2019, 5, 333-338.	0.8	11
64	Magnetic resonance hyperpolarisation imaging detects early myocardial dysfunction in a porcine model of right ventricular heart failure. <i>FASEB Journal</i> , 2019, 33, 831.4.	0.2	0
65	Hyperpolarized [1,4- ¹³ C]Fumarate Enables Magnetic Resonance-Based Imaging of Myocardial Necrosis. <i>JACC: Cardiovascular Imaging</i> , 2018, 11, 1594-1606.	2.3	46
66	Dynamic coronary MR angiography in a pig model with hyperpolarized water. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 1165-1169.	1.9	12
67	Hyperpolarized ¹³ C, ¹⁵ N T ₂ relaxation changes in acute kidney injury. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 696-702.	1.9	20
68	Acute hypertensive stress imaged by cardiac hyperpolarized [¹³ C]pyruvate magnetic resonance. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2053-2061.	1.9	9
69	Effects of anesthesia on renal function and metabolism in rats assessed by hyperpolarized ¹³ C MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 2073-2080.	1.9	14
70	Acute renal metabolic effect of metformin assessed with hyperpolarised MRI in rats. <i>Diabetologia</i> , 2018, 61, 445-454.	2.9	25
71	FP213 NON-INVASIVE ASSESSMENT OF THE FIBROGENIC RESPONSE FOLLOWING ISCHEMIA/REPERFUSION INJURY IN RODENTS. <i>Nephrology Dialysis Transplantation</i> , 2018, 33, i102-i103.	0.4	0
72	Hyperpolarized [¹³ C] pyruvate as a possible diagnostic tool in liver disease. <i>Physiological Reports</i> , 2018, 6, e13943.	0.7	11

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73	Evaluation of Active Brown Adipose Tissue by the Use of Hyperpolarized [1-13C]Pyruvate MRI in Mice. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2597.	1.8	11
74	Effects of Unfiltered Coffee and Bioactive Coffee Compounds on the Development of Metabolic Syndrome Components in a High-Fat-/High-Fructose-Fed Rat Model. <i>Nutrients</i> , 2018, 10, 1547.	1.7	11
75	13C Pyruvate Transport Across the Blood-Brain Barrier in Preclinical Hyperpolarised MRI. <i>Scientific Reports</i> , 2018, 8, 15082.	1.6	43
76	Structure tensor informed fibre tractography at 3T. <i>Human Brain Mapping</i> , 2018, 39, 4440-4451.	1.9	4
77	A Combination of Coffee Compounds Shows Insulin-Sensitizing and Hepatoprotective Effects in a Rat Model of Diet-Induced Metabolic Syndrome. <i>Nutrients</i> , 2018, 10, 6.	1.7	37
78	Renal Energy Metabolism Following Acute Dichloroacetate and 2,4-Dinitrophenol Administration: Assessing the Cumulative Action with Hyperpolarized [1-13C]Pyruvate MRI. <i>Tomography</i> , 2018, 4, 105-109.	0.8	0
79	Diabetes induced renal urea transport alterations assessed with 3D hyperpolarized ¹³ C, ¹⁵ N-Urea. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 1650-1655.	1.9	25
80	Fumarase activity: an in vivo and in vitro biomarker for acute kidney injury. <i>Scientific Reports</i> , 2017, 7, 40812.	1.6	38
81	Antioxidant treatment attenuates lactate production in diabetic nephropathy. <i>American Journal of Physiology - Renal Physiology</i> , 2017, 312, F192-F199.	1.3	28
82	In situ lactate dehydrogenase activity: a novel renal cortical imaging biomarker of tubular injury?. <i>American Journal of Physiology - Renal Physiology</i> , 2017, 312, F465-F473.	1.3	36
83	The chinchilla as a novel animal model of pregnancy. <i>Royal Society Open Science</i> , 2017, 4, 161098.	1.1	19
84	Imaging oxygen metabolism with hyperpolarized magnetic resonance: a novel approach for the examination of cardiac and renal function. <i>Bioscience Reports</i> , 2017, 37, .	1.1	13
85	Hyperbaric oxygen therapy reduces renal lactate production. <i>Physiological Reports</i> , 2017, 5, e13217.	0.7	14
86	Cafestol, a Bioactive Substance in Coffee, Has Antidiabetic Properties in KKAY Mice. <i>Journal of Natural Products</i> , 2017, 80, 2353-2359.	1.5	29
87	Imaging porcine cardiac substrate selection modulations by glucose, insulin and potassium intervention: A hyperpolarized [¹³ C]pyruvate study. <i>NMR in Biomedicine</i> , 2017, 30, e3702.	1.6	16
88	Hyperpolarized [1-13C]-acetate Renal Metabolic Clearance Rate Mapping. <i>Scientific Reports</i> , 2017, 7, 16002.	1.6	30
89	The potential of hyperpolarized ¹³ C magnetic resonance spectroscopy to monitor the effect of combretastatin based vascular disrupting agents. <i>Acta Oncologica</i> , 2017, 56, 1626-1633.	0.8	9
90	Ex vivo hyperpolarized MR spectroscopy on isolated renal tubular cells: A novel technique for cell energy phenotyping. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 457-461.	1.9	5

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91	Renal ¹³ C MR angiography and perfusion in the pig using hyperpolarized water. <i>Magnetic Resonance in Medicine</i> , 2017, 78, 1131-1135.	1.9	18
92	Low-Noise Active Decoupling Circuit and its Application to ¹³ C Cryogenic RF Coils at 3 T. <i>Tomography</i> , 2017, 3, 60-66.	0.8	14
93	Can Hyperpolarized ¹³ C-Urea Be Used to Assess Glomerular Filtration Rate? A Retrospective Study. <i>Tomography</i> , 2017, 3, 146-152.	0.8	20
94	Hyperpolarized ¹³ C Magnetic Resonance Imaging Can Detect Metabolic Changes Characteristic of Penumbra in Ischemic Stroke. <i>Tomography</i> , 2017, 3, 67-73.	0.8	26
95	Hyperpolarized Renal Magnetic Resonance Imaging: Potential and Pitfalls. <i>Frontiers in Physiology</i> , 2016, 7, 72.	1.3	29
96	Early diabetic kidney maintains the corticomedullary urea and sodium gradient. <i>Physiological Reports</i> , 2016, 4, e12714.	0.7	26
97	Hyperpolarized ¹³ C, ¹⁵ N ² â€Urea ¹³ C MRI for assessment of the urea gradient in the porcine kidney. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 1895-1899.	1.9	28
98	¹³ C dynamic nuclear polarization for measuring metabolic flux in endothelial progenitor cells. <i>Experimental Cell Research</i> , 2016, 349, 95-100.	1.2	2
99	Hyperpolarized ¹³ C Magnetic Resonance Treatment Response Monitoring: A New Paradigm for Multiorgan Metabolic Assessment of Pharmacological Interventions?. <i>Diabetes</i> , 2016, 65, 3529-3531.	0.3	3
100	Renal ischemia and reperfusion assessment with three-dimensional hyperpolarized ¹³ C, ¹⁵ N ² â€urea. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 1524-1530.	1.9	36
101	Current state-of-the-art hyperpolarized ¹³ C-acetate-to-acetylcarnitine imaging is not indicative of the altered balance between glucose and fatty acid utilization associated with diabetes. <i>Physiological Reports</i> , 2016, 4, e12975.	0.7	3
102	Hyperpolarized ¹³ C urea relaxation mechanism reveals renal changes in diabetic nephropathy. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 515-518.	1.9	34
103	The myocardial architecture changes in persistent pulmonary hypertension of the newborn in an ovine animal model. <i>Pediatric Research</i> , 2016, 79, 565-574.	1.1	26
104	Changes in overall ventricular myocardial architecture in the setting of a porcine animal model of right ventricular dilation. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2016, 19, 93.	1.6	26
105	Fast Pad ² Transform Accelerated CSI for Hyperpolarized MRS. <i>Tomography</i> , 2016, 2, 117-124.	0.8	8
106	Acute porcine renal metabolic effect of endogastric soft drink administration assessed with hyperpolarized [¹³ C]pyruvate. <i>Magnetic Resonance in Medicine</i> , 2015, 74, 558-563.	1.9	26
107	Investigation of metabolic changes in STZ-induced diabetic rats with hyperpolarized [¹³ C]acetate. <i>Physiological Reports</i> , 2015, 3, e12474.	0.7	18
108	High altitude may alter oxygen availability and renal metabolism in diabetics as measured by hyperpolarized [¹³ C]pyruvate magnetic resonance imaging. <i>Kidney International</i> , 2014, 86, 67-74.	2.6	64

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109	In vivo single-shot ¹³ C spectroscopic imaging of hyperpolarized metabolites by spatiotemporal encoding. <i>Journal of Magnetic Resonance</i> , 2014, 240, 8-15.	1.2	38
110	A new RF tagging pulse based on the Frank poly-phase perfect sequence. <i>Journal of Magnetic Resonance</i> , 2014, 247, 50-53.	1.2	1
111	Storage of magnetization as singlet order by optimal control designed pulses. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 921-926.	1.9	9
112	Insufficient insulin administration to diabetic rats increases substrate utilization and maintains lactate production in the kidney. <i>Physiological Reports</i> , 2014, 2, e12233.	0.7	39
113	Assessment of early diabetic renal changes with hyperpolarized [¹³ C]pyruvate. <i>Diabetes/Metabolism Research and Reviews</i> , 2013, 29, 125-129.	1.7	83
114	Quadrupolar-coupling-specific binomial pulse sequences for in vivo ²³ Na NMR and MRI. <i>Journal of Magnetic Resonance</i> , 2010, 206, 139-146.	1.2	7
115	RF coil design for accurate parallel imaging on ¹³ C MRSI using ²³ Na sensitivity profiles. <i>Magnetic Resonance in Medicine</i> , 0, , .	1.9	5