Christian Ludwig

List of Publications by Year
in descending order

76 papers	3,156 citations	172457 29 h-index	168389 53 g-index
79 all docs	79 docs citations	79 times ranked	5168 citing authors

#	Article	IF	Citations
1	Fumarate Is Cardioprotective via Activation of the Nrf2 Antioxidant Pathway. Cell Metabolism, 2012, 15, 361-371.	16.2	231
2	Twoâ€dimensional Jâ€resolved NMR spectroscopy: review of a key methodology in the metabolomics toolbox. Phytochemical Analysis, 2010, 21, 22-32.	2.4	208
3	Improved classification accuracy in 1- and 2-dimensional NMR metabolomics data using the variance stabilising generalised logarithm transformation. BMC Bioinformatics, 2007, 8, 234.	2.6	188
4	Loss of succinate dehydrogenase activity results in dependency on pyruvate carboxylation for cellular anabolism. Nature Communications, 2015, 6, 8784.	12.8	169
5	Optimized metabolite extraction from blood serum for 1H nuclear magnetic resonance spectroscopy. Analytical Biochemistry, 2008, 377, 16-23.	2.4	164
6	COordination of Standards in MetabOlomicS (COSMOS): facilitating integrated metabolomics data access. Metabolomics, 2015, 11, 1587-1597.	3.0	140
7	Birmingham Metabolite Library: a publicly accessible database of 1-D 1H and 2-D 1H J-resolved NMR spectra of authentic metabolite standards (BML-NMR). Metabolomics, 2012, 8, 8-18.	3.0	137
8	MetaboLab - advanced NMR data processing and analysis for metabolomics. BMC Bioinformatics, 2011, 12, 366.	2.6	116
9	NMRLABâ€”Advanced NMR Data Processing in Matlab. Journal of Magnetic Resonance, 2000, 145, 201-208.	2.1	85
10	A Role for Cytosolic Fumarate Hydratase in Urea Cycle Metabolism and Renal Neoplasia. Cell Reports, 2013, 3, 1440-1448.	6.4	78
11	SALMON: Solvent Accessibility, Ligand binding, and Mapping of ligand Orientation by NMR Spectroscopy. Journal of Medicinal Chemistry, 2008, 51, 1-3.	6.4	69
12	Metabolic Changes in Flatfish Hepatic Tumours Revealed by NMR-Based Metabolomics and Metabolic Correlation Networks. Journal of Proteome Research, 2008, 7, 5277-5285.	3.7	60
13	PhenoMeNal: processing and analysis of metabolomics data in the cloud. GigaScience, 2019, 8, .	6.4	60
14	Global 30-day outcomes after bariatric surgery during the COVID-19 pandemic (GENEVA): an international cohort study. Lancet Diabetes and Endocrinology,the, 2021, 9, 7-9.	11.4	58
15	Solution structure and backbone dynamics of human epidermal-type fatty acid-binding protein (E-FABP). Biochemical Journal, 2002, 364, 725-737.	3.7	55
16	Structure and Backbone Dynamics of Apo- and Holo-cellular Retinol-binding Protein in Solution. Journal of Biological Chemistry, 2002, 277, 21983-21997.	3.4	54
17	nmrML: A Community Supported Open Data Standard for the Description, Storage, and Exchange of NMR Data. Analytical Chemistry, 2018, 90, 649-656.	6.5	50
18	Proposed reporting requirements for the description of NMR-based metabolomics experiments. Metabolomics, 2007, 3, 223-229.	3.0	49

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19	Ligand based NMR methods for drug discovery. Frontiers in Bioscience - Landmark, 2009, Volume, 4565.	3.0	48
20	Metabolomic Analysis of Perfusate During Hypothermic Machine Perfusion of Human Cadaveric Kidneys. Transplantation, 2015, 99, 754-759.	1.0	48
21	The Effects of Oxygenation on Ex Vivo Kidneys Undergoing Hypothermic Machine Perfusion. Transplantation, 2019, 103, 314-322.	1.0	48
22	Deciphering the Molecular Details for the Binding of the Prion Protein to Main Ganglioside GM1 of Neuronal Membranes. Chemistry and Biology, 2011, 18, 1422-1431.	6.0	45
23	Systemic and adipocyte transcriptional and metabolic dysregulation in idiopathic intracranial hypertension. JCI Insight, 2021, 6, .	5.0	45
24	Validation of a urine metabolome fingerprint in dog for phenotypic classification. Metabolomics, 2007, 3, 453-463.	3.0	40
25	Functional and Biophysical Analysis of the C-Terminus of the CGRP-Receptor; a Family B GPCR. Biochemistry, 2008, 47, 8434-8444.	2.5	40
26	Rat Tumor Response to the Vascular-Disrupting Agent 5,6-Dimethylxanthenone-4-Acetic Acid as Measured by Dynamic Contrast-Enhanced Magnetic Resonance Imaging, Plasma 5-Hydroxyindoleacetic Acid Levels, and Tumor Necrosis. Neoplasia, 2006, 8, 199-206.	5.3	35
27	WAVEWATâ€"Improved Solvent Suppression in NMR Spectra Employing Wavelet Transforms. Journal of Magnetic Resonance, 2002, 156, 19-25.	2.1	34
28	30-Day Morbidity and Mortality of Bariatric Surgery During the COVID-19 Pandemic: a Multinational Cohort Study of 7704 Patients from 42 Countries. Obesity Surgery, 2021, 31, 4272-4288.	2.1	34
29	Brief O2 uploading during continuous hypothermic machine perfusion is simple yet effective oxygenation method to improve initial kidney function in a porcine autotransplant model. American Journal of Transplantation, 2020, 20, 2030-2043.	4.7	32
30	Lineâ€shape analysis of Jâ€resolved NMR spectra: application to metabolomics and quantification of intensity errors from signal processing and high signal congestion. Magnetic Resonance in Chemistry, 2009, 47, S86-95.	1.9	30
31	Effects of the application of different window functions and projection methods on processing of 1H J-resolved nuclear magnetic resonance spectra for metabolomics. Analytica Chimica Acta, 2008, 610, 80-88.	5.4	29
32	Solution Structure and Dynamics of the Functional Domain ofParacoccus denitrificansCytochromec552in Both Redox Statesâ€,â€¡. Biochemistry, 2001, 40, 12312-12320.	2.5	28
33	Determinants for Optimal Enhancement in Ex Situ DNP Experiments. Applied Magnetic Resonance, 2008, 34, 483-494.	1.2	26
34	Application of ex situ dynamic nuclear polarization in studying small molecules. Physical Chemistry Chemical Physics, 2010, 12, 5868.	2.8	26
35	Optimizing the Polarization Matrix for ex Situ Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2010, 132, 2508-2509.	13.7	25
36	Metabolic differences between cold stored and machine perfused porcine kidneys: A 1 H NMR based study. Cryobiology, 2017, 74, 115-120.	0.7	25

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37	Quantum rotor induced hyperpolarization. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10799-10803.	7.1	24
38	Improved Stability and Spectral Quality in Ex Situ Dissolution DNP Using an Improved Transfer Device. Applied Magnetic Resonance, 2015, 46, 723-729.	1.2	24
39	The effects of tumorâ€derived plateletâ€derived growth factor on vascular morphology and function in vivo revealed by susceptibility MRI. International Journal of Cancer, 2008, 122, 1548-1556.	5.1	23
40	Combined Analysis of NMR and MS Spectra (CANMS). Angewandte Chemie - International Edition, 2017, 56, 4140-4144.	13.8	23
41	In vivo [U-¹³C]glucose labeling to assess heart metabolism in murine models of pressure and volume overload. American Journal of Physiology - Heart and Circulatory Physiology, 2020, 319, H422-H431.	3.2	22
42	A method for interleaved acquisition of a vascular input function for dynamic contrast-enhanced MRI in experimental rat tumours. NMR in Biomedicine, 2004, 17, 132-143.	2.8	21
43	Influence of Different Partial Pressures of Oxygen During Continuous Hypothermic Machine Perfusion in a Pig Kidney Ischemia-reperfusion Autotransplant Model. Transplantation, 2020, 104, 731-743.	1.0	21
44	Effect of COVID-19 pandemic on global Bariatric surgery PRActiceS â€“ The COBRAS study. Obesity Research and Clinical Practice, 2021, 15, 395-401.	1.8	21
45	13C glucose labelling studies using 2D NMR are a useful tool for determining ex vivo whole organ metabolism during hypothermic machine perfusion of kidneys. Transplantation Research, 2016, 5, 7.	1.5	20
46	Malonate as a ROS product is associated with pyruvate carboxylase activity in acute myeloid leukaemia cells. Cancer & Metabolism, 2016, 4, 15.	5.0	20
47	Siteâ€Specific Investigation of the Steadyâ€State Kinetics and Dynamics of the Multistep Binding of Bile Acid Molecules to a Lipid Carrier Protein. Chemistry - A European Journal, 2010, 16, 11300-11310.	3.3	19
48	A human pluripotent stem cell model for the analysis of metabolic dysfunction in hepatic steatosis. IScience, 2021, 24, 101931.	4.1	19
49	30-day morbidity and mortality of sleeve gastrectomy, Roux-en-Y gastric bypass and one anastomosis gastric bypass: a propensity score-matched analysis of the GENEVA data. International Journal of Obesity, 2022, 46, 750-757.	3.4	19
50	Metabolic tracing reveals novel adaptations to skeletal muscle cell energy production pathways in response to NAD+ depletion. Wellcome Open Research, 2018, 3, 147.	1.8	17
51	Metabolomic Perfusate Analysis during Kidney Machine Perfusion: The Pig Provides an Appropriate Model for Human Studies. PLoS ONE, 2014, 9, e114818.	2.5	17
52	Evaluation of Solvent Accessibility Epitopes for Different Dehydrogenase Inhibitors. ChemMedChem, 2008, 3, 1371-1376.	3.2	16
53	Optimizing the Signal Enhancement In Cryogenic ex situ DNPâ^'NMR Spectroscopy. Journal of the American Chemical Society, 2008, 130, 6914-6915.	13.7	16
54	30â€Day morbidity and mortality of bariatric metabolic surgery in adolescence during the <scp>COVID</scp>â€19 pandemic â€“ The <scp>GENEVA</scp> study. Pediatric Obesity, 2021, 16, e12832.	2.8	16

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55	MALDI profiles of proteins and lipids for the rapid characterisation of upper GI-tract cancers. Journal of Proteomics, 2013, 80, 207-215.	2.4	15
56	Tracerâ€Based Metabolic NMRâ€Based Flux Analysis in a Leukaemia Cell Line. ChemPlusChem, 2016, 81, 453-459.	2.8	15
57	Metabolic tracing reveals novel adaptations to skeletal muscle cell energy production pathways in response to NAD+ depletion. Wellcome Open Research, 2018, 3, 147.	1.8	14
58	De novo design of a stable N-terminal helical foldamer. Organic and Biomolecular Chemistry, 2005, 3, 4310.	2.8	13
59	Backbone assignment of the N-terminal polyomavirus large T antigen. Biomolecular NMR Assignments, 2009, 3, 119-123.	0.8	13
60	Ligand-based NMR spectra demonstrate an additional phytoestrogen binding site for 17Î²-hydroxysteroid dehydrogenase type 1. Journal of Steroid Biochemistry and Molecular Biology, 2009, 117, 93-98.	2.5	12
61	Nicotinamide riboside has minimal impact on energy metabolism in mouse models of mild obesity. Journal of Endocrinology, 2021, 251, 111-123.	2.6	12
62	Assignment of the orphan nuclear receptor Nurr1 by NMR. Biomolecular NMR Assignments, 2010, 4, 101-105.	0.8	11
63	The chelation of colonic luminal iron by a unique sodium alginate for the improvement of gastrointestinal health. Molecular Nutrition and Food Research, 2016, 60, 2098-2108.	3.3	11
64	Probing Cancer Cell Metabolism Using NMR Spectroscopy. Advances in Experimental Medicine and Biology, 2016, 899, 89-111.	1.6	10
65	Metabolomic Evidence for a Field Effect in Histologically Normal and Metaplastic Tissues in Patients with Esophageal Adenocarcinoma. Neoplasia, 2017, 19, 165-174.	5.3	10
66	Detecting acetylated aminoacids in blood serum using hyperpolarized 13C-1Î—-2D-NMR. Journal of Magnetic Resonance, 2019, 305, 175-179.	2.1	9
67	High-Speed Tracer Analysis of Metabolism (HS-TrAM). Wellcome Open Research, 2018, 3, 5.	1.8	9
68	Anthracene-modified oligonucleotides as fluorescent DNA mismatch sensors: discrimination between various base-pair mismatches. Supramolecular Chemistry, 2011, 23, 273-277.	1.2	7
69	Nuclear Magnetic Resonance Strategies for Metabolic Analysis. Advances in Experimental Medicine and Biology, 2017, 965, 45-76.	1.6	5
70	Rationalisation of a mechanism for sensing single point variants in target DNA using anthracene-tagged base discriminating probes. Organic and Biomolecular Chemistry, 2018, 16, 6576-6585.	2.8	5
71	Optimised collection of nonâ€uniformly sampled 2Dâ€HSQC NMR spectra for use in metabolic flux analysis. Magnetic Resonance in Chemistry, 2021, 59, 287-299.	1.9	5
72	Safety of Bariatric Surgery in â‰¥ 65-Year-Old Patients During the COVID-19 Pandemic. Obesity Surgery, 2022, 32, 1-13.	2.1	4

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73	Combined Analysis of NMR and MS Spectra (CANMS). Angewandte Chemie, 2017, 129, 4204-4208.	2.0	3
74	The Metabolic Profile of Stable Ischemic Heart Disease by Serum 1H NMR. Applied Magnetic Resonance, 2019, 50, 527-539.	1.2	1
75	A comparative study of the backbone dynamics of two closely related lipid binding proteins: Bovine heart fatty acid binding protein and porcine ileal lipid binding protein. , 1999, , 109-121.		1
76	High-Speed Tracer Analysis of Metabolism (HS-TrAM). Wellcome Open Research, 0, 3, 5.	1.8	1