Carles Arus

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8382882/publications.pdf

Version: 2024-02-01

129	4,060	136950	144013
papers	citations	32 h-index	57 g-index

131	131	131	3183
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Extraction of artefactual MRS patterns from a large database using nonâ€negative matrix factorization. NMR in Biomedicine, 2022, 35, e4193.	2.8	6
2	Establishing Imaging Biomarkers of Host Immune System Efficacy during Glioblastoma Therapy Response: Challenges, Obstacles and Future Perspectives. Metabolites, 2022, 12, 243.	2.9	2
3	Successful Partnerships: Exploring the Potential of Immunogenic Signals Triggered by TMZ, CX-4945, and Combined Treatment in GL261 Glioblastoma Cells. International Journal of Molecular Sciences, 2021, 22, 3453.	4.1	7
4	Immune System-Related Changes in Preclinical GL261 Glioblastoma under TMZ Treatment: Explaining MRSI-Based Nosological Imaging Findings with RT-PCR Analyses. Cancers, 2021, 13, 2663.	3.7	7
5	Antiâ€tumour immune response in GL261 glioblastoma generated by Temozolomide Immuneâ€Enhancing Metronomic Schedule monitored with MRSIâ€based nosological images. NMR in Biomedicine, 2020, 33, e4229.	2.8	15
6	Anti-PD-1 Immunotherapy in Preclinical GL261 Glioblastoma: Influence of Therapeutic Parameters and Non-Invasive Response Biomarker Assessment with MRSI-Based Approaches. International Journal of Molecular Sciences, 2020, 21, 8775.	4.1	14
7	Unraveling response to temozolomide in preclinical GL261 glioblastoma with MRI/MRSI using radiomics and signal source extraction. Scientific Reports, 2020, 10, 19699.	3.3	7
8	Magnetic resonance spectroscopy in posterior fossa tumours: the tumour spectroscopic signature may improve discrimination in adults among haemangioblastoma, ependymal tumours, medulloblastoma, and metastasis. European Radiology, 2019, 29, 2792-2801.	4.5	13
9	Up-Regulation of the Alpha Prime Subunit of Protein Kinase CK2 as a Marker of Fast Proliferation in GL261 Cultured Cells. Pathology and Oncology Research, 2019, 25, 1659-1663.	1.9	6
10	Cancer metabolism in a snapshot: MRS(I). NMR in Biomedicine, 2019, 32, e4054.	2.8	17
11	Characterization of the canine rostral ventricularâ€subventricular zone: Morphological, immunohistochemical, ultrastructural, and neurosphere assay studies. Journal of Comparative Neurology, 2018, 526, 721-741.	1.6	9
12	Quality of clinical brain tumor MR spectra judged by humans and machine learning tools. Magnetic Resonance in Medicine, 2018, 79, 2500-2510.	3.0	18
13	Dual T₁/T₂ Nanoscale Coordination Polymers as Novel Contrast Agents for MRI: A Preclinical Study for Brain Tumor. ACS Applied Materials & Interfaces, 2018, 10, 38819-38832.	8.0	50
14	Metronomic treatment in immunocompetent preclinical GL261 glioblastoma: effects of cyclophosphamide and temozolomide. NMR in Biomedicine, 2017, 30, e3748.	2.8	23
15	Brain metabolic pattern analysis using a magnetic resonance spectra classification software in experimental stroke. BMC Neuroscience, 2017, 18, 13.	1.9	5
16	Metabolomics of Therapy Response in Preclinical Glioblastoma: A Multi-Slice MRSI-Based Volumetric Analysis for Noninvasive Assessment of Temozolomide Treatment. Metabolites, 2017, 7, 20.	2.9	19
17	Targeting Protein Kinase CK2: Evaluating CX-4945 Potential for GL261 Glioblastoma Therapy in Immunocompetent Mice. Pharmaceuticals, 2017, 10, 24.	3.8	30
18	Development of a transplantable glioma tumour model from genetically engineered mice: MRI/MRS/MRSI characterisation. Journal of Neuro-Oncology, 2016, 129, 67-76.	2.9	5

#	Article	IF	Citations
19	MRSI-based molecular imaging of therapy response to temozolomide in preclinical glioblastoma using source analysis. NMR in Biomedicine, 2016, 29, 732-743.	2.8	19
20	Protein Kinase CK2 Content in GL261 Mouse Glioblastoma. Pathology and Oncology Research, 2016, 22, 633-637.	1.9	5
21	Improving Ribosomal RNA Integrity in Surgically Resected Human Brain Tumor Biopsies. Biopreservation and Biobanking, 2016, 14, 156-164.	1.0	6
22	Automated Quality Control for Proton Magnetic Resonance Spectroscopy Data Using Convex Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2016, , 719-727.	1.3	4
23	From raw data to data-analysis for magnetic resonance spectroscopy â€“ the missing link: jMRUI2XML. BMC Bioinformatics, 2015, 16, 378.	2.6	9
24	Classification of brain tumours from MR spectra: the INTERPRET collaboration and its outcomes. NMR in Biomedicine, 2015, 28, 1772-1787.	2.8	19
25	r1andr2Relaxivities of Dendrons Based on a OEG-DTPA Architecture: Effect of Gd3+Placement and Dendron Functionalization. Journal of Nanotechnology, 2015, 2015, 1-8.	3.4	2
26	In Vivo and Ex Vivo Magnetic Resonance Spectroscopy of the Infarct and the Subventricular Zone in Experimental Stroke. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 828-834.	4.3	17
27	Robustness of Equations that Define Molecular Subtypes of Glioblastoma Tumors Based on Five Transcripts Measured by RT-PCR. OMICS A Journal of Integrative Biology, 2015, 19, 41-51.	2.0	2
28	Effect of acute hyperglycemia on moderately hypothermic GL261 mouse glioma monitored by T1-weighted DCE MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2015, 28, 119-126.	2.0	0
29	Usefulness of Proton Magnetic Resonance Spectroscopy in the Clinical Management of Brain Tumors. , 2014, , 141-161.		0
30	Semi-supervised source extraction methodology for the nosological imaging of glioblastoma response to therapy. , 2014, , .		2
31	Molecular imaging coupled to pattern recognition distinguishes response to temozolomide in preclinical glioblastoma. NMR in Biomedicine, 2014, 27, 1333-1345.	2.8	21
32	Automatic relevance source determination in human brain tumors using Bayesian NMF. , 2014, , .		1
33	1H-MRS is useful to reinforce the suspicion of primary central nervous system lymphoma prior to surgery. European Radiology, 2014, 24, 2895-2905.	4.5	16
34	Ex vivo assessment of polyol coated-iron oxide nanoparticles for MRI diagnosis applications: toxicological and MRI contrast enhancement effects. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	18
35	Multicentre evaluation of the INTERPRET decision support system 2.0 for brain tumour classification. NMR in Biomedicine, 2014, 27, 1009-1018.	2.8	10
36	A new ex vivo method to evaluate the performance of candidate MRI contrast agents: a proof-of-concept study. Journal of Nanobiotechnology, 2014, 12, 12.	9.1	16

#	Article	IF	Citations
37	Dimethyl sulfoxide (DMSO) as a potential contrast agent for brain tumors. NMR in Biomedicine, 2013, 26, 173-184.	2.8	8
38	Assessment of a 1H high-resolution magic angle spinning NMR spectroscopy procedure for free sugars quantification in intact plant tissue. Planta, 2013, 238, 397-413.	3.2	17
39	DCE@urLAB: a dynamic contrast-enhanced MRI pharmacokinetic analysis tool for preclinical data. BMC Bioinformatics, 2013, 14, 316.	2.6	33
40	A Novel Semi-Supervised Methodology for Extracting Tumor Type-Specific MRS Sources in Human Brain Data. PLoS ONE, 2013, 8, e83773.	2.5	18
41	Strategies for annotation and curation of translational databases: the eTUMOUR project. Database: the Journal of Biological Databases and Curation, 2012, 2012, bas035-bas035.	3.0	17
42	Development of robust discriminant equations for assessing subtypes of glioblastoma biopsies. British Journal of Cancer, 2012, 106, 1816-1825.	6.4	8
43	Improving the classification of brain tumors in mice with perturbation enhanced (PE)-MRSI. Integrative Biology (United Kingdom), 2012, 4, 183-191.	1.3	17
44	Minimization of spectral pattern changes during HRMAS experiments at 37 degrees celsius by prior focused microwave irradiation. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2012, 25, 401-410.	2.0	9
45	Influence of the spinning rate in the HR-MAS pattern of mobile lipids in C6 glioma cells and in artificial oil bodies. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2012, 25, 487-496.	2.0	8
46	Efficient Î³-amino-proline-derived cell penetrating peptideâ€“superparamagnetic iron oxide nanoparticle conjugates via aniline-catalyzed oxime chemistry as bimodal imaging nanoagents. Chemical Communications, 2012, 48, 5322.	4.1	21
47	Non-negative matrix factorisation methods for the spectral decomposition of MRS data from human brain tumours. BMC Bioinformatics, 2012, 13, 38.	2.6	28
48	In Vivo Magnetic Resonance Spectroscopic Imaging and Ex Vivo Quantitative Neuropathology by High Resolution Magic Angle Spinning Proton Magnetic Resonance Spectroscopy. Neuromethods, 2012, , 329-365.	0.3	3
49	Convex Non-Negative Matrix Factorization for Brain Tumor Delimitation from MRSI Data. PLoS ONE, 2012, 7, e47824.	2.5	39
50	Prospective diagnostic performance evaluation of singleâ€voxel ¹H MRS for typing and grading of brain tumours. NMR in Biomedicine, 2012, 25, 661-673.	2.8	55
51	Robust discrimination of glioblastomas from metastatic brain tumors on the basis of singleâ€voxel ¹H MRS. NMR in Biomedicine, 2012, 25, 819-828.	2.8	27
52	Brain Tumor Pathological Area Delimitation through Non-negative Matrix Factorization. , 2011, , .		0
53	Proton MR Spectroscopy Provides Relevant Prognostic Information in High-Grade Astrocytomas. American Journal of Neuroradiology, 2011, 32, 74-80.	2.4	33
54	Incremental Gaussian Discriminant Analysis based on Graybill and Deal weighted combination of estimators for brain tumour diagnosis. Journal of Biomedical Informatics, 2011, 44, 677-687.	4.3	14

#	Article	IF	Citations
55	Compatibility between 3TÂ1H SV-MRS data and automatic brain tumour diagnosis support systems based on databases of 1.5T 1H SV-MRS spectra. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2011, 24, 35-42.	2.0	18
56	Spectral decomposition methods for the analysis of MRS information from human brain tumors. , 2011, , .		4
57	Diagnosis and Staging of Brain Tumours: Magnetic Resonance Single Voxel Spectra. , 2011, , 227-243.		1
58	Improving the classification of brain tumors in mice with perturbation enhanced (PE)-MRSI. BMC Proceedings, 2010, 4, .	1.6	0
59	Short-term temperature effect on the HRMAS spectra of human brain tumor biopsies and their pattern recognition analysis. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2010, 23, 203-215.	2.0	9
60	Feature and model selection with discriminatory visualization for diagnostic classification of brain tumors. Neurocomputing, 2010, 73, 622-632.	5.9	38
61	SpectraClassifier 1.0: a user friendly, automated MRS-based classifier-development system. BMC Bioinformatics, 2010, 11, 106.	2.6	31
62	The INTERPRET Decision-Support System version 3.0 for evaluation of Magnetic Resonance Spectroscopy data from human brain tumours and other abnormal brain masses. BMC Bioinformatics, 2010, 11, 581.	2.6	43
63	1 H-MRSI pattern perturbation in a mouse glioma: the effects of acute hyperglycemia and moderate hypothermia. NMR in Biomedicine, 2010, 23, 23-33.	2.8	31
64	Development of a Predictor for Human Brain Tumors Based on Gene Expression Values Obtained from Two Types of Microarray Technologies. OMICS A Journal of Integrative Biology, 2010, 14, 157-164.	2.0	12
65	13C-labelling studies indicate compartmentalized synthesis of triacylglycerols in C6 rat glioma cells. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 693-701.	2.4	8
66	Proton MR Spectroscopy Improves Discrimination between Tumor and Pseudotumoral Lesion in Solid Brain Masses. American Journal of Neuroradiology, 2009, 30, 544-551.	2.4	92
67	Automated Brain Tumor Biopsy Prediction Using Single-labeling cDNA Microarrays-based Gene Expression Profiling. Diagnostic Molecular Pathology, 2009, 18, 206-218.	2.1	17
68	Outlier exploration and diagnostic classification of a multi-centre 1H-MRS brain tumour database. Neurocomputing, 2009, 72, 3085-3097.	5.9	24
69	Multiprojectâ€“multicenter evaluation of automatic brain tumor classification by magnetic resonance spectroscopy. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2009, 22, 5-18.	2.0	126
70	HealthAgents: distributed multi-agent brain tumor diagnosis andÂprognosis. Applied Intelligence, 2009, 30, 191-202.	5.3	78
71	In vivo proton magnetic resonance spectroscopy of intraventricular tumours of the brain. European Radiology, 2009, 19, 2049-2059.	4.5	43
72	Preliminary characterization of an experimental breast cancer cells brain metastasis mouse model by MRI/MRS. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2008, 21, 237-249.	2.0	19

#	Article	IF	Citations
73	Automated quality control protocol for MR spectra of brain tumors. Magnetic Resonance in Medicine, 2008, 59, 1274-1281.	3.0	39
74	MRS quality assessment in a multicentre study on MRS-based classification of brain tumours. NMR in Biomedicine, 2008, 21, 148-158.	2.8	43
75	Perturbation of mouse glioma MRS pattern by induced acute hyperglycemia. NMR in Biomedicine, 2008, 21, 251-264.	2.8	39
76	The effect of combining two echo times in automatic brain tumor classification by MRS. NMR in Biomedicine, 2008, 21, 1112-1125.	2.8	44
77	MRS in clinical practice. Application to brain tumour MRS. , 2008, , .		1
78	Classification, Dimensionality Reduction, and Maximally Discriminatory Visualization of a Multicentre 1H-MRS Database of Brain Tumors. , 2008, , .		3
79	Rule-Based Assistance to Brain Tumour Diagnosis Using LR-FIR. Lecture Notes in Computer Science, 2008, , 173-180.	1.3	5
80	Exploratory Characterization of Outliers in a Multi-centre 1H-MRS Brain Tumour Dataset. Lecture Notes in Computer Science, 2008, , 189-196.	1.3	5
81	A possible cellular explanation for the NMR-visible mobile lipid (ML) changes in cultured C6 glioma cells with growth. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2007, 1771, 31-44.	2.4	55
82	Quantification and classification of high-resolution magic angle spinning data for brain tumor diagnosis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5407-10.	0.5	14
83	Bagging Linear Sparse Bayesian Learning Models for Variable Selection in Cancer Diagnosis. IEEE Transactions on Information Technology in Biomedicine, 2007, 11, 338-347.	3.2	28
84	An iron-based T 1 contrast agent made of iron-phosphate complexes: In vitro and in vivo studies. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2007, 20, 27-37.	2.0	15
85	In vivo quantification of response to treatment in patients with multiple myeloma by 1H magnetic resonance spectroscopy of bone marrow. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2007, 20, 93-101.	2.0	25
86	Genomics and Metabolomics Research for Brain Tumour Diagnosis Based on Machine Learning. Lecture Notes in Computer Science, 2007, , 1012-1019.	1.3	3
87	On the Implementation of HealthAgents: Agent-Based Brain Tumour Diagnosis. , 2007, , 5-24.		3
88	A Multi-Centre, Web-Accessible and Quality Control-Checked Database of in vivo MR Spectra of Brain Tumour Patients. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2006, 19, 22-33.	2.0	78
89	Development of a decision support system for diagnosis and grading of brain tumours usingin vivo magnetic resonance single voxel spectra. NMR in Biomedicine, 2006, 19, 411-434.	2.8	216
90	Analysis of the changes in the1H NMR spectral pattern of perchloric acid extracts of C6 cells with growth. NMR in Biomedicine, 2006, 19, 223-230.	2.8	15

#	Article	IF	Citations
91	Comparison between neuroimaging classifications and histopathological diagnoses using an international multicenter brain tumor magnetic resonance imaging database. Journal of Neurosurgery, 2006, 105, 6-14.	1.6	126
92	On the Design of a Web-Based Decision Support System for Brain Tumour Diagnosis Using Distributed Agents. , 2006, , .		16
93	In vitro characterization of an Fe8 cluster as potential MRI contrast agent. NMR in Biomedicine, 2005, 18, 300-307.	2.8	24
94	Brain tumor classification based on long echo proton MRS signals. Artificial Intelligence in Medicine, 2004, 31, 73-89.	6.5	161
95	Assignment of the 2.03 ppm resonance in in vivo 1H MRS of human brain tumour cystic fluid: contribution of macromolecules. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2004, 17, 36-46.	2.0	20
96	Classification of brain tumours using short echo time 1H MR spectra. Journal of Magnetic Resonance, 2004, 170, 164-175.	2.1	166
97	Taurine Detection by Proton Magnetic Resonance Spectroscopy in Medulloblastoma: Contribution to Noninvasive Differential Diagnosis with Cerebellar Astrocytoma. Neurosurgery, 2004, 55, 824-829.	1.1	78
98	Brain tumor classification by proton MR spectroscopy: comparison of diagnostic accuracy at short and long TE. American Journal of Neuroradiology, 2004, 25, 1696-704.	2.4	135
99	Proton magnetic resonance spectroscopy (1H MRS) of human brain tumours: assessment of differences between tumour types and its applicability in brain tumour categorization. European Radiology, 2003, 13, 582-591.	4.5	134
100	Automated classification of short echo time in in vivo ¹H brain tumor spectra: A multicenter study. Magnetic Resonance in Medicine, 2003, 49, 29-36.	3.0	169
101	EFECTO DE LA SUPLEMENTACIÃ“N ORAL CON MONOHIDRATO DE CREATINA EN EL METABOLISMO ENERGÃ‰RTICO MUSCULAR Y EN LA COMPOSICIÃ“N CORPORAL DE SUJETOS QUE PRACTICAN ACTIVIDAD FÃSICA. Revista Chilena De Nutricion, 2003, 30, .	0.3	3
102	Adult Primitive Neuroectodermal Tumor: Proton MR Spectroscopic Findings with Possible Application for Differential Diagnosis. Radiology, 2002, 225, 556-566.	7.3	105
103	Measurement by nuclear magnetic resonance diffusion of the dimensions of the mobile lipid compartment in C6 cells. Cancer Research, 2002, 62, 5672-7.	0.9	19
104	Mobile lipid production after confluence and pH stress in perfused C6 cells. NMR in Biomedicine, 2001, 14, 33-40.	2.8	22
105	Magnetic resonance spectroscopy of brain hemangiopericytomas: high myoinositol concentrations and discrimination from meningiomas. Journal of Neurosurgery, 2001, 94, 55-60.	1.6	86
106	Robust methodology for the discrimination of brain tumours from in vivo magnetic resonance spectra. IET Science, Measurement and Technology, 2000, 147, 309-314.	0.7	15
107	A Study of Imidazole-Based Nuclear Magnetic Resonance Probes of Cellular pH. Analytical Biochemistry, 1998, 261, 64-72.	2.4	24
108	1H MRS markers of tumour growth in intrasplenic tumours and liver metastasis induced by injection of HT-29 cells in nude mice spleen. , 1998, 11, 93-106.		41

#	Article	IF	Citations
109	Towards a method for automated classification of1H MRS spectra from brain tumours. NMR in Biomedicine, 1998, 11, 177-191.	2.8	109
110	Genetic programming for classification and feature selection: analysis of1H nuclear magnetic resonance spectra from human brain tumour biopsies. , 1998, 11, 217-224.		49
111	Pattern recognition analysis of1H NMR spectra from perchloric acid extracts of human brain tumor biopsies. Magnetic Resonance in Medicine, 1998, 39, 869-877.	3.0	70
112	Diagnosis of brain abscess by magnetic resonance spectroscopy. Journal of Neurosurgery, 1997, 86, 708-713.	1.6	50
113	Quantitative and Qualitative Characterization of1H NMR Spectra of Colon Tumors, Normal Mucosa and their Perchloric Acid Extracts: Decreased Levels of Myo-inositol in Tumours can be Detected in Intact Biopsies. , 1996, 9, 33-45.		66
114	A Simple Approach to the Design of a Shielded Gradient Probe for High-Resolutionin VivoSpectroscopy. Journal of Magnetic Resonance Series B, 1995, 109, 146-152.	1.6	7
115	1H NMR spectroscopy of colon tumors and normal mucosal biopsies; elevated taurine levels and reduced polyethyleneglycol absorption in tumors may have diagnostic significance. NMR in Biomedicine, 1993, 6, 111-118.	2.8	66
116	A perifusion loop-gap resonator NMR probe for aerobic cell suspensions. Magnetic Resonance in Medicine, 1993, 29, 563-566.	3.0	2
117	Development and characterization of an ergometer to study the bioenergetics of the human quadriceps muscle by31P NMR spectroscopy inside a standard MR scanner. Magnetic Resonance in Medicine, 1993, 29, 575-581.	3.0	17
118	A Versatile Perifusion System for the NMR Spectroscopy of Bovine Retina. Assignment of Resonances and Effect of Ischemia. Experimental Eye Research, 1993, 57, 669-678.	2.6	1
119	Two-dimensional spectra of intact tissue: Homonuclear Hartmann-Hahn spectroscopy provides increased sensitivity and information content as compared to COSY. Magnetic Resonance in Medicine, 1990, 15, 142-151.	3.0	11
120	Chemical and computer graphics studies on the topography of the ribonuclease A active site cleft. A model of the enzymepentanucleotide substrate complex. Protein Engineering, Design and Selection, 1989, 2, 417-429.	2.1	30
121	Application of high-field 1H-NMR spectroscopy for the study of perifused amphibian and excised mammalian muscles. Biochimica Et Biophysica Acta - Molecular Cell Research, 1986, 886, 411-424.	4.1	40
122	N-acetylaspartate as an intrinsic thermometer for 1H NMR of brain slices. Journal of Magnetic Resonance, 1985, 63, 376-379.	0.5	12
123	The separation of phosphocreatine from creatine, and pH determination in frog muscle by natural abundance13C-NMR. Biochimica Et Biophysica Acta - Molecular Cell Research, 1985, 844, 91-93.	4.1	13
124	1H NMR of intact tissues at 11.1 T. Journal of Magnetic Resonance, 1984, 57, 519-525.	0.5	10
125	1 H NMR of intact muscle at 11 T. FEBS Letters, 1984, 165, 231-237.	2.8	56
126	Evidence on the existence of a purine ligand induced conformational change in the active site of bovine pancreatic ribonuclease A studied by proton nuclear magnetic resonance spectroscopy. Biochemistry, 1982, 21, 4290-4297.	2.5	26

#	Article	IF	Citations
127	Preparative purification and group separation of mono- and dinucleotides by combining charge-transfer and affinity chromatography. Journal of Chromatography A, 1982, 237, 500-505.	3.7	2
128	1H-NMR studies on the binding subsites of bovine pancreatic ribonuclease A. Biochimica Et Biophysica Acta - Biomembranes, 1981, 660, 117-127.	2.6	30
129	The Reaction of Bovine Pancreatic Ribonuclease A with 6-Chloropurineriboside 5'-Monophosphate. Evidence on the Existence of a Phosphate-Binding Sub-site. FEBS Journal, 1980, 105, 571-579.	0.2	42