

Sebastián G Cerdán

List of Publications by Year in descending order

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99
papers

4,855
citations

117453

34
h-index

98622

67
g-index

100
all docs

100
docs citations

100
times ranked

7349
citing authors

#	ARTICLE	IF	CITATIONS
1	The short-chain fatty acid acetate reduces appetite via a central homeostatic mechanism. <i>Nature Communications</i> , 2014, 5, 3611.	5.8	1,129
2	In vivo imaging of extracellular pH using ¹ H MRSI. <i>Magnetic Resonance in Medicine</i> , 1999, 41, 743-750.	1.9	303
3	Effects of intravenous administration of allogenic bone marrow- and adipose tissue-derived mesenchymal stem cells on functional recovery and brain repair markers in experimental ischemic stroke. <i>Stem Cell Research and Therapy</i> , 2013, 4, 11.	2.4	201
4	Cerebral metabolism of [1,2- ¹³ C ₂]glucose and [U- ¹³ C ₄]3-hydroxybutyrate in rat brain as detected by ¹³ C NMR spectroscopy. <i>NMR in Biomedicine</i> , 1993, 6, 264-277.	1.6	157
5	Brain-Derived Neurotrophic Factor Administration Mediated Oligodendrocyte Differentiation and Myelin Formation in Subcortical Ischemic Stroke. <i>Stroke</i> , 2015, 46, 221-228.	1.0	132
6	The redox switch/redox coupling hypothesis. <i>Neurochemistry International</i> , 2006, 48, 523-530.	1.9	131
7	Quantitative ¹³ C NMR studies of metabolic compartmentation in the adult mammalian brain. <i>NMR in Biomedicine</i> , 1999, 12, 451-462.	1.6	125
8	Molecular Crowding and Viscosity as Determinants of Translational Diffusion of Metabolites in Subcellular Organelles. <i>Archives of Biochemistry and Biophysics</i> , 1999, 362, 329-338.	1.4	101
9	¹ H NMR detection of cerebral myo-inositol. <i>FEBS Letters</i> , 1985, 187, 167-172.	1.3	98
10	Brain Glutamine Synthesis Requires Neuronal-Born Aspartate as Amino Donor for Glial Glutamate Formation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2011, 31, 90-101.	2.4	98
11	Carbonic anhydrase IX is a pH-stat that sets an acidic tumour extracellular pH in vivo. <i>British Journal of Cancer</i> , 2018, 119, 622-630.	2.9	93
12	Imaging tumor hypoxia by magnetic resonance methods. <i>NMR in Biomedicine</i> , 2011, 24, 1-16.	1.6	86
13	¹ H HR-MAS and genomic analysis of human tumor biopsies discriminate between high and low grade astrocytomas. <i>NMR in Biomedicine</i> , 2009, 22, 629-637.	1.6	78
14	Ontogeny and Cellular Localization of the Pyruvate Recycling System in Rat Brain. <i>Journal of Neurochemistry</i> , 1998, 70, 2613-2619.	2.1	77
15	Paramagnetic Gd-based gold glyconanoparticles as probes for MRI: tuning relaxivities with sugars. <i>Chemical Communications</i> , 2009, , 3922.	2.2	77
16	Serial In vivo Spectroscopic Nuclear Magnetic Resonance Imaging of Lactate and Extracellular pH in Rat Gliomas Shows Redistribution of Protons Away from Sites of Glycolysis. <i>Cancer Research</i> , 2007, 67, 7638-7645.	0.4	72
17	Pattern recognition analysis of ¹ H NMR spectra from perchloric acid extracts of human brain tumor biopsies. <i>Magnetic Resonance in Medicine</i> , 1998, 39, 869-877.	1.9	70
18	Intracellular compartmentation of pyruvate in primary cultures of cortical neurons as detected by ¹³ C NMR spectroscopy with multiple ¹³ C labels. <i>Journal of Neuroscience Research</i> , 2001, 66, 771-781.	1.3	68

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19	Microscopic images of intraspheroidal pH by ¹ H magnetic resonance chemical shift imaging of pH sensitive indicators. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2005, 18, 293-301.	1.1	68
20	Cerebral glucose metabolism and the glutamine cycle as detected by in vivo and in vitro ¹³ C NMR spectroscopy. <i>Neurochemistry International</i> , 2004, 45, 297-303.	1.9	65
21	A comparative study of age-related hearing loss in wild type and insulin-like growth factor I deficient mice. <i>Frontiers in Neuroanatomy</i> , 2010, 4, 27.	0.9	57
22	Computational determination of pKa values. A comparison of different theoretical approaches and a novel procedure. <i>Computational and Theoretical Chemistry</i> , 2004, 684, 121-128.	1.5	56
23	Time Course of Early Metabolic Changes following Diffuse Traumatic Brain Injury in Rats as Detected by ¹ H NMR Spectroscopy. <i>Journal of Neurotrauma</i> , 2007, 24, 944-959.	1.7	56
24	Brain Region-Selective Mechanisms Contribute to the Progression of Cerebral Alterations in Acute Liver Failure in Rats. <i>Gastroenterology</i> , 2011, 140, 638-645.	0.6	55
25	Imidazol-1-ylalkanoic acids as extrinsic ¹ H NMR probes for the determination of intracellular pH, extracellular pH and cell volume. <i>Bioorganic and Medicinal Chemistry</i> , 1994, 2, 305-314.	1.4	54
26	Metabolism of (1- ¹³ C) glucose and (2- ¹³ C, 2- ² H ₃) acetate in the neuronal and glial compartments of the adult rat brain as detected by ¹³ C, ² H NMR spectroscopy. <i>Neurochemistry International</i> , 2000, 37, 217-228.	1.9	54
27	Metabolic Precursors and Compartmentation of Cerebral GABA in Vigabatrin-Treated Rats. <i>Journal of Neurochemistry</i> , 1996, 67, 1718-1725.	2.1	53
28	White matter injury restoration after stem cell administration in subcortical ischemic stroke. <i>Stem Cell Research and Therapy</i> , 2015, 6, 121.	2.4	52
29	Genetic programming for classification and feature selection: analysis of ¹ H nuclear magnetic resonance spectra from human brain tumour biopsies. , 1998, 11, 217-224.		49
30	Dynamic oxygen challenge evaluated by NMR ¹ and ² * “ insights into tumor oxygenation. <i>NMR in Biomedicine</i> , 2015, 28, 937-947.	1.6	45
31	Dynamics and Environment of Mitochondrial Water as Detected by ¹ H NMR. <i>Journal of Biological Chemistry</i> , 1996, 271, 10648-10653.	1.6	44
32	Chemistry of paramagnetic and diamagnetic contrast agents for Magnetic Resonance Imaging and Spectroscopy. <i>European Journal of Radiology</i> , 2008, 67, 453-458.	1.2	42
33	Magnetic resonance analysis of the effects of acute ammonia intoxication on rat brain. Role of NMDA receptors. <i>Journal of Neurochemistry</i> , 2007, 103, 1334-1343.	2.1	41
34	Image guided drug release from pH-sensitive Ion channel-functionalized stealth liposomes into an in vivo glioblastoma model. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2015, 11, 1345-1354.	1.7	41
35	Dendritic MRI Contrast Agents: An Efficient Prelabeling Approach Based on CuAAC. <i>Biomacromolecules</i> , 2011, 12, 2902-2907.	2.6	37
36	Role of glial metabolism in diabetic encephalopathy as detected by high resolution ¹³ C NMR. <i>NMR in Biomedicine</i> , 2003, 16, 440-449.	1.6	35

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37	The metabolism of water in cells and tissues as detected by NMR methods. Progress in Nuclear Magnetic Resonance Spectroscopy, 2001, 39, 41-77.	3.9	34
38	Metabolic interactions between glutamatergic and dopaminergic neurotransmitter systems are mediated through D1 dopamine receptors. Journal of Neuroscience Research, 2007, 85, 3284-3293.	1.3	32
39	Targeting of lanthanide(III) chelates of DOTA-type glycoconjugates to the hepatic asialoglycoprotein receptor: cell internalization and animal imaging studies. Contrast Media and Molecular Imaging, 2006, 1, 246-258.	0.4	31
40	Functional genomics in Dictyostelium: MidA, a new conserved protein, is required for mitochondrial function and development. Journal of Cell Science, 2006, 119, 1154-1164.	1.2	31
41	Synthesis and Regioselective Hydrolysis of 2-(Imidazol-1-yl)succinic Esters. Journal of Organic Chemistry, 1994, 59, 6268-6273.	1.7	28
42	Magnetoliposomes Loaded with Poly-Unsaturated Fatty Acids as Novel Theranostic Anti-Inflammatory Formulations. Theranostics, 2015, 5, 489-503.	4.6	27
43	Cerebral oedema is not responsible for motor or cognitive deficits in rats with hepatic encephalopathy. Liver International, 2014, 34, 379-387.	1.9	26
44	Hydrogen Turnover and Subcellular Compartmentation of Hepatic [2-13C]Glutamate and [3-13C]Aspartate as Detected by 13C NMR. Journal of Biological Chemistry, 2002, 277, 7799-7807.	1.6	25
45	Kinetic properties of the redox switch/redox coupling mechanism as determined in primary cultures of cortical neurons and astrocytes from rat brain. Journal of Neuroscience Research, 2007, 85, 3244-3253.	1.3	25
46	In vitro characterization of an Fe ₈ cluster as potential MRI contrast agent. NMR in Biomedicine, 2005, 18, 300-307.	1.6	24
47	Hypothalamic metabolic compartmentation during appetite regulation as revealed by magnetic resonance imaging and spectroscopy methods. Frontiers in Neuroenergetics, 2013, 5, 6.	5.3	24
48	Imaging hypothalamic activity using diffusion weighted magnetic resonance imaging in the mouse and human brain. NeuroImage, 2013, 64, 448-457.	2.1	23
49	N -2-(Azol-1(2)-yl)ethyliminodiacetic acids: a novel series of Gd(III) chelators as T ₂ relaxation agents for magnetic resonance imaging. Bioorganic and Medicinal Chemistry, 1999, 7, 517-527.	1.4	22
50	Futile cycling of lactate through the plasma membrane of C6 glioma cells as detected by (13C,2H) NMR. Journal of Neuroscience Research, 2005, 79, 119-127.	1.3	21
51	Neuroglial Metabolic Compartmentation Underlying Leptin Deficiency in the Obese Mice as Detected by Magnetic Resonance Imaging and Spectroscopy Methods. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 2257-2266.	2.4	21
52	Assessment of ³¹ P-NMR analysis of phospholipid profiles for potential differential diagnosis of human cerebral tumors. NMR in Biomedicine, 2009, 22, 663-674.	1.6	19
53	Gold nanoparticles functionalised with fast water exchanging Gd ³⁺ chelates: linker effects on the relaxivity. Dalton Transactions, 2015, 44, 4016-4031.	1.6	19
54	13C MRS: An outstanding tool for metabolic studies. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2005, 27A, 1-16.	0.2	18

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55	Ventricular enlargement associated with the panneural ablation of the podocalyxin gene. <i>Molecular and Cellular Neurosciences</i> , 2010, 43, 90-97.	1.0	18
56	MR Imaging Features of High-Grade Gliomas in Murine Models: How They Compare with Human Disease, Reflect Tumor Biology, and Play a Role in Preclinical Trials. <i>American Journal of Neuroradiology</i> , 2012, 33, 24-36.	1.2	17
57	Resolving the Sources of Plasma Glucose Excursions following a Glucose Tolerance Test in the Rat with Deuterated Water and [U-13C]Glucose. <i>PLoS ONE</i> , 2012, 7, e34042.	1.1	17
58	Systematic Evaluation of Magnetic Resonance Imaging and Spectroscopy Techniques for Imaging a Transgenic Model of Alzheimer's Disease (A β 2PP/PS1). <i>Journal of Alzheimer's Disease</i> , 2012, 30, 337-353.	1.2	16
59	An iron-based T 1 contrast agent made of iron-phosphate complexes: In vitro and in vivo studies. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2007, 20, 27-37.	1.1	15
60	Cerebral activation by fasting induces lactate accumulation in the hypothalamus. <i>Magnetic Resonance in Medicine</i> , 2009, 62, 279-283.	1.9	15
61	Redox dependence and compartmentation of [¹³ C]pyruvate in the brain of deuterated rats bearing implanted C6 gliomas. <i>Journal of Neurochemistry</i> , 2009, 109, 237-245.	2.1	15
62	Environmentally Sensitive Paramagnetic and Diamagnetic Contrast Agents for Nuclear Magnetic Resonance Imaging and Spectroscopy. <i>Current Topics in Medicinal Chemistry</i> , 2011, 11, 115-130.	1.0	15
63	Nuclear magnetic resonance imaging of tumour growth and neovasculature performance <i>in vivo</i> reveals Grb7 as a novel antiangiogenic target. <i>NMR in Biomedicine</i> , 2013, 26, 1059-1069.	1.6	15
64	Magnetic anisotropy of functionalized multi-walled carbon nanotube suspensions. <i>Carbon</i> , 2018, 131, 229-237.	5.4	15
65	Gd(III)-EPTPAC ₁₆ , a new self-assembling potential liver MRI contrast agent: <i>in vitro</i> characterization and <i>in vivo</i> animal imaging studies. <i>NMR in Biomedicine</i> , 2008, 21, 322-336.	1.6	14
66	Single-walled carbon nanotubes as anisotropic relaxation probes for magnetic resonance imaging. <i>MedChemComm</i> , 2013, 4, 669.	3.5	14
67	Twenty-seven Years of Cerebral Pyruvate Recycling. <i>Neurochemical Research</i> , 2017, 42, 1621-1628.	1.6	14
68	Assessment of Overall Survival in Glioma Patients as Predicted by Metabolomic Criteria. <i>Frontiers in Oncology</i> , 2019, 9, 328.	1.3	14
69	1H-2H exchange in the perfused rat liver metabolizing [3-13C]alanine and 2H2O as detected by multinuclear NMR spectroscopy. <i>NMR in Biomedicine</i> , 1994, 7, 249-262.	1.6	13
70	A fast and sensitive 1H NMR method to measure the turnover of the H2 hydrogen of lactate. <i>Magnetic Resonance in Medicine</i> , 2005, 54, 1014-1019.	1.9	13
71	Increased Oxidative Metabolism and Neurotransmitter Cycling in the Brain of Mice Lacking the Thyroid Hormone Transporter Slc16a2 (Mct8). <i>PLoS ONE</i> , 2013, 8, e74621.	1.1	13
72	Metabolic adaptations in spontaneously immortalized PGC-1 β knock-out mouse embryonic fibroblasts increase their oncogenic potential. <i>Redox Biology</i> , 2020, 29, 101396.	3.9	12

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73	A novel series of complexones with bis- or biazole structure as mixed ligands of paramagnetic contrast agents for MRI. <i>Bioorganic and Medicinal Chemistry</i> , 2003, 11, 5555-5567.	1.4	10
74	Novel Generation of pH Indicators for Proton Magnetic Resonance Spectroscopic Imaging. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 4539-4542.	2.9	10
75	Nanotubular Paramagnetic Probes as Contrast Agents for Magnetic Resonance Imaging Based on the Diffusion Tensor. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 1813-1815.	7.2	10
76	fMRI Evaluation of Hypothalamic Appetite Regulation Pathways in Mice Genetically Deficient in Leptin or Neuropeptide Y. <i>Neurochemical Research</i> , 2015, 40, 2628-2638.	1.6	10
77	Integrative analysis of physiological responses to high fat feeding with diffusion tensor images and neurochemical profiles of the mouse brain. <i>International Journal of Obesity</i> , 2021, 45, 1203-1214.	1.6	10
78	Amide conjugates of the DO3A- α -N-(\pm -amino)propionate ligand: leads for stable, high relaxivity contrast agents for MRI?. <i>Contrast Media and Molecular Imaging</i> , 2013, 8, 40-49.	0.4	9
79	Magnetic resonance assessment of the cerebral alterations associated with obesity development. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 2135-2151.	2.4	9
80	Experimental and Theoretical Study of Lanthanide Complexes Based on Linear and Macrocyclic Polyaminopolycarboxylic Acids Containing Pyrazolyethyl Arms. <i>Molecules</i> , 2006, 11, 345-356.	1.7	8
81	^{13}C NMR and cerebral biochemistry. <i>NMR in Biomedicine</i> , 2003, 16, 301-302.	1.6	7
82	Synthetic Approaches to Heterocyclic Ligands for Gd-Based MRI Contrast Agents. <i>Molecules</i> , 2007, 12, 1771-1795.	1.7	7
83	Systemic Glucose Administration Alters Water Diffusion and Microvascular Blood Flow in Mouse Hypothalamic Nuclei – An fMRI Study. <i>Frontiers in Neuroscience</i> , 2019, 13, 921.	1.4	6
84	Advanced Contrast Agents for Multimodal Biomedical Imaging Based on Nanotechnology. <i>Methods in Molecular Biology</i> , 2018, 1718, 441-457.	0.4	6
85	Uncoupling Protein 2 (UCP2) Function in the Brain as Revealed by the Cerebral Metabolism of (^{13}C)-Glucose. <i>Neurochemical Research</i> , 2017, 42, 108-114.	1.6	5
86	Spatially Resolved Bioenergetic and Genetic Reprogramming Through the Brain of Rats Bearing Implanted C6 Gliomas As Detected by Multinuclear High-Resolution Magic Angle Spinning and Genomic Analysis. <i>Journal of Proteome Research</i> , 2018, 17, 2953-2962.	1.8	5
87	Cerebral hunger maps in rodents and humans by diffusion weighted MRI. <i>Appetite</i> , 2019, 142, 104333.	1.8	5
88	Effect of cyclosporine A on hepatic carbohydrate metabolism and hepatic gene expression in rat. <i>Expert Opinion on Drug Metabolism and Toxicology</i> , 2012, 8, 1223-1230.	1.5	4
89	Oxygenation Imaging by Nuclear Magnetic Resonance Methods. <i>Methods in Molecular Biology</i> , 2018, 1718, 297-313.	0.4	4
90	Drug delivery from engineered organisms and nanocarriers as monitored by multimodal imaging technologies. <i>AIMS Bioengineering</i> , 2017, 4, 198-222.	0.6	4

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91	A method to measure lactate recycling in cultured cells by edited ^1H nuclear magnetic resonance spectroscopy. <i>Analytical Biochemistry</i> , 2007, 370, 246-248.	1.1	3
92	The turnover of the ^3H deuterons from ($2\text{-}^{13}\text{C}$) glutamate and ($2\text{-}^{13}\text{C}$) glutamine reveals subcellular trafficking in the brain of partially deuterated rats. <i>Journal of Neurochemistry</i> , 2009, 109, 63-72.	2.1	3
93	Colloidal and rheological characterization of SWCNT in biological media. <i>International Journal of Smart and Nano Materials</i> , 2019, 10, 300-315.	2.0	2
94	A Convenient and Efficient Synthesis of the First (Nitroimidazolyl)succinic Esters and their Diacids. <i>Synthesis</i> , 2006, 2006, 3859-3864.	1.2	1
95	Pyruvate Transport and Metabolism in the Central Nervous System. <i>Advances in Neurobiology</i> , 2012, , 715-753.	1.3	1
96	Editorial: "Transcellular Cycles Underlying Neurotransmission". <i>Frontiers in Nutrition</i> , 2015, 2, 18.	1.6	1
97	Unambiguous assignment of the ^3H and ^3R deuterations of cerebral ($2\text{-}^{13}\text{C}$) glutamate by ^{13}C NMR at 18.8 tesla. <i>Magnetic Resonance in Medicine</i> , 2010, 63, 1088-1091.	1.9	0
98	Intelligent Image Analysis of Diffusion Weighted Data Sets: A New Tool for Functional Imaging. <i>Lecture Notes in Computer Science</i> , 2011, , 9-12.	1.0	0
99	COMPORTAMIENTO REOLÓGICO DE SUSPENSIONES DE NANOTUBOS DE CARBONO CON APLICACIONES BIOMÉDICAS. , 0, , 16-27.		0