Emmanuel Barbier

List of Publications by Year in descending order

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1			108046	120465
	127	4,858	37	65
	papers	citations	h-index	g-index
	149	149	149	7132
	all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	A metabolic biomarker predicts Parkinson's disease at the early stages in patients and animal models. Journal of Clinical Investigation, 2022, 132, .	3.9	12
2	VPS35 deficiency in the embryonic cortex leads to prenatal cell loss and abnormal development of axonal connectivity. Molecular and Cellular Neurosciences, 2022, 120, 103726.	1.0	1
3	High-resolution relaxometry-based calibrated fMRI in murine brain: Metabolic differences between awake and anesthetized states. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 811-825.	2.4	11
4	In vivo γâ€aminobutyric acid increase as a biomarker of the epileptogenic zone: An unbiased metabolomics approach. Epilepsia, 2021, 62, 163-175.	2.6	12
5	Hypertonic Sodium Lactate to Alleviate Functional Deficits Following Diffuse Traumatic Brain Injury: An Osmotic or a Lactate-Related Effect?. Neurocritical Care, 2021, 34, 795-803.	1.2	3
6	Bayesian Inverse Regression for Vascular Magnetic Resonance Fingerprinting. IEEE Transactions on Medical Imaging, 2021, 40, 1827-1837.	5.4	5
7	Neurovascular multiparametric MRI defines epileptogenic and seizure propagation regions in experimental mesiotemporal lobe epilepsy. Epilepsia, 2021, 62, 1244-1255.	2.6	8
8	3D Spatial Distribution of Nanoparticles in Mice Brain Metastases by X-ray Phase-Contrast Tomography. Frontiers in Oncology, 2021, 11, 554668.	1.3	5
9	Editorial: APPNING: Animal Population Imaging. Frontiers in Neuroinformatics, 2021, 15, 676603.	1.3	1
10	Brain metabolism in tau and amyloid mouse models of Alzheimer's disease: An MRI study. NMR in Biomedicine, 2021, 34, e4568.	1.6	11
11	Contribution of CT-Scan Analysis by Artificial Intelligence to the Clinical Care of TBI Patients. Frontiers in Neurology, 2021, 12, 666875.	1.1	11
12	Optimized cervical spinal cord perfusion MRI after traumatic injury in the rat. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 0271678X2098239.	2.4	7
13	Automated Quantification of Brain Lesion Volume From Post-trauma MR Diffusion-Weighted Images. Frontiers in Neurology, 2021, 12, 740603.	1.1	О
14	SAR comparison between CASL and pCASL at high magnetic field and evaluation of the benefit of a dedicated labeling coil. Magnetic Resonance in Medicine, 2020, 83, 254-261.	1.9	4
15	Targeting brain metastases with ultrasmall theranostic nanoparticles, a first-in-human trial from an MRI perspective. Science Advances, 2020, 6, eaay5279.	4.7	70
16	Comparison of strategies for monitoring and treating patients at the early phase of severe traumatic brain injury: the multicentre randomised controlled OXY-TC trial study protocol. BMJ Open, 2020, 10, e040550.	0.8	21
17	MP3: Medical Software for Processing Multi-Parametric Images Pipelines. Frontiers in Neuroinformatics, 2020, 14, 594799.	1.3	6
18	A Multicenter Preclinical MRI Study: Definition of Rat Brain Relaxometry Reference Maps. Frontiers in Neuroinformatics, 2020, 14, 22.	1.3	11

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19	Functional connectivity is preserved but reorganized across several anesthetic regimes. Neurolmage, 2020, 219, 116945.	2.1	13
20	Brain networks of rats under anesthesia using resting-state fMRI: comparison with dead rats, random noise and generative models of networks. Journal of Neural Engineering, 2020, 17, 045012.	1.8	10
21	Artificial intelligence to predict clinical disability in patients with multiple sclerosis using FLAIR MRI. Diagnostic and Interventional Imaging, 2020, 101, 795-802.	1.8	46
22	Cohort Creation and Visualization Using Graph Model in the PREDIMED Health Data Warehouse. Studies in Health Technology and Informatics, 2020, 270, 108-112.	0.2	1
23	AGulX [®] from bench to bedsideâ€"Transfer of an ultrasmall theranostic gadolinium-based nanoparticle to clinical medicine. British Journal of Radiology, 2019, 92, 20180365.	1.0	86
24	Defective tubulin detyrosination causes structural brain abnormalities with cognitive deficiency in humans and mice. Human Molecular Genetics, 2019, 28, 3391-3405.	1.4	43
25	Ultrasmall theranostic gadolinium-based nanoparticles improve high-grade rat glioma survival. Journal of Clinical Neuroscience, 2019, 67, 215-219.	0.8	22
26	Brain lateralization probed by water diffusion at the atomic to micrometric scale. Scientific Reports, 2019, 9, 14694.	1.6	5
27	Anomalous water dynamics in brain: a combined diffusion magnetic resonance imaging and neutron scattering investigation. Journal of the Royal Society Interface, 2019, 16, 20190186.	1.5	14
28	A pericyteâ€glia scarring develops at the leaky capillaries in the hippocampus during seizure activity. Epilepsia, 2019, 60, 1399-1411.	2.6	37
29	MRI Assessment of Oxygen Metabolism and Hemodynamic Status in Symptomatic Intracranial Atherosclerotic Stenosis: A Pilot Study. Journal of Neuroimaging, 2019, 29, 467-475.	1.0	3
30	Locomotion and eating behavior changes in Yucatan minipigs after unilateral radio-induced ablation of the caudate nucleus. Scientific Reports, 2019, 9, 17082.	1.6	9
31	Neural Parameters Estimation for Brain Tumor Growth Modeling. Lecture Notes in Computer Science, 2019, , 787-795.	1.0	11
32	Component Elimination Strategies to Fit Mixtures of Multiple Scale Distributions. Communications in Computer and Information Science, 2019, , 81-95.	0.4	3
33	Fully Automatic Lesion Localization and Characterization: Application to Brain Tumors Using Multiparametric Quantitative MRI Data. IEEE Transactions on Medical Imaging, 2018, 37, 1678-1689.	5.4	36
34	Evaluation of Cerebral Blood Flow and Brain Metabolism in the Intensive Care Unit., 2018,, 327-338.		0
35	Hypertonic sodium lactate reverses brain oxygenation and metabolism dysfunction after traumatic brain injury. British Journal of Anaesthesia, 2018, 120, 1295-1303.	1.5	19
36	Cerebrovascular heterogeneity and neuronal excitability. Neuroscience Letters, 2018, 667, 75-83.	1.0	28

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37	Dynamical properties of water in living cells. Frontiers of Physics, 2018, 13, 1.	2.4	7
38	Transit time mapping in the mouse brain using timeâ€encoded pCASL. NMR in Biomedicine, 2018, 31, e3855.	1.6	28
39	Neurogliovascular dysfunction in a model of repeated traumatic brain injury. Theranostics, 2018, 8, 4824-4836.	4.6	28
40	Mapping of brain tissue hematocrit in glioma and acute stroke using a dual autoradiography approach. Scientific Reports, 2018, 8, 9878.	1.6	3
41	Cluster versus ROI analysis to assess combined antiangiogenic therapy and radiotherapy in the F98 ratâ€glioma model. NMR in Biomedicine, 2018, 31, e3933.	1.6	6
42	Interpulse phase corrections for unbalanced pseudoâ€continuous arterial spin labeling at high magnetic field. Magnetic Resonance in Medicine, 2018, 79, 1314-1324.	1.9	29
43	Traumatic Brain Lesion Quantification Based on Mean Diffusivity Changes. Lecture Notes in Computer Science, 2018, , 88-99.	1.0	1
44	Other MRI Approaches to Perfusion Imaging (ASL, DSC, DCE). , 2018, , 31-66.		0
45	Vascular permeability in the RG2 glioma model can be mediated by macropinocytosis and be independent of the opening of the tight junction. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1264-1275.	2.4	5
46	Impact of tissue T ₁ on perfusion measurement with arterial spin labeling. Magnetic Resonance in Medicine, 2017, 77, 1656-1664.	1.9	7
47	Permeability of Brain Tumor Vessels Induced by Uniform or Spatially Microfractionated Synchrotron Radiation Therapies. International Journal of Radiation Oncology Biology Physics, 2017, 98, 1174-1182.	0.4	41
48	Evaluation of Parametric Response Mapping to Assess Therapeutic Response to Human Mesenchymal Stem Cells after Experimental Stroke. Cell Transplantation, 2017, 26, 1462-1471.	1.2	7
49	Imaging of brain oxygenation with magnetic resonance imaging: A validation with positron emission tomography in the healthy and tumoural brain. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 2584-2597.	2.4	18
50	Multiparametric magnetic resonance imaging including oxygenation mapping of experimental ischaemic stroke. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 2196-2207.	2.4	7
51	Evaluation of parametric response mapping to assess therapeutic response to human mesenchymal stem cells after experimental stroke. Cell Transplantation, 2017, , .	1.2	0
52	Gadolinium-Based Nanoparticles and Radiation Therapy for Multiple Brain Melanoma Metastases: Proof of Concept before Phase I Trial. Theranostics, 2016, 6, 418-427.	4.6	134
53	An MRI-based classification scheme to predict passive access of 5 to 50-nm large nanoparticles to tumors. Scientific Reports, 2016, 6, 21417.	1.6	44
54	MRI-guided clinical 6-MV radiosensitization of glioma using a unique gadolinium-based nanoparticles injection. Nanomedicine, 2016, 11, 2405-2417.	1.7	51

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55	MR Vascular Fingerprinting in Stroke and Brain Tumors Models. Scientific Reports, 2016, 6, 37071.	1.6	31
56	Intravenous Injection of Clinical Grade Human MSCs after Experimental Stroke: Functional Benefit and Microvascular Effect. Cell Transplantation, 2016, 25, 2157-2171.	1.2	22
57	Erythropoietin and Its Derivates Modulate Mitochondrial Dysfunction after Diffuse Traumatic Brain Injury. Journal of Neurotrauma, 2016, 33, 1625-1633.	1.7	32
58	Thérapie cellulaire dans le traumatisme cérébral aiguÂ: espoirs et limites. Anesthésie & Réanimation, 2015, 1, 554-555.	0.1	0
59	The three glioma rat models C6, F98 and RG2 exhibit different metabolic profiles: in vivo 1H MRS and ex vivo 1H HRMAS combined with multivariate statistics. Metabolomics, 2015, 11, 1834-1847.	1.4	8
60	Reduced CMRO ₂ and cerebrovascular reserve in patients with severe intracranial arterial stenosis: A combined multiparametric qBOLD oxygenation and BOLD fMRI study. Human Brain Mapping, 2015, 36, 695-706.	1.9	24
61	Multiparametric MRI as an early biomarker of individual therapy effects during concomitant treatment of brain tumours. NMR in Biomedicine, 2015, 28, 1163-1173.	1.6	9
62	Mannitol Improves Brain Tissue Oxygenation in a Model of Diffuse Traumatic Brain Injury*. Critical Care Medicine, 2015, 43, 2212-2218.	0.4	13
63	Parametric response map (prm) is a promising tool for the monitoring of post traumatic cerebral oedema. Intensive Care Medicine Experimental, 2015, 3, .	0.9	O
64	Microtubule-associated protein 6 mediates neuronal connectivity through Semaphorin 3E-dependent signalling for axonal growth. Nature Communications, 2015, 6, 7246.	5.8	57
65	Cell-Based therapy for traumatic brain injury. British Journal of Anaesthesia, 2015, 115, 203-212.	1.5	72
66	Impact of manganese on the hippocampus metabolism in the context of MEMRI: a proton HRMAS MRS study. Toxicology Research, 2015, 4, 376-384.	0.9	6
67	Imaging the microvessel caliber and density: Principles and applications of microvascular MRI. Magnetic Resonance in Medicine, 2015, 73, 325-341.	1.9	51
68	Manganese Cytotoxicity Assay on Hippocampal Neuronal Cell Culture. Bio-protocol, 2015, 5, .	0.2	0
69	Microvascular MRI and Unsupervised Clustering Yields Histology-Resembling Images in Two Rat Models of Glioma. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1354-1362.	2.4	23
70	Tissue Oxygen Saturation Mapping with Magnetic Resonance Imaging. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1550-1557.	2.4	42
71	Microvascular Plasticity After Experimental Stroke: A Molecular and MRI Study. Cerebrovascular Diseases, 2014, 38, 344-353.	0.8	39
72	Impact of manganese on primary hippocampal neurons from rodents. Hippocampus, 2014, 24, 598-610.	0.9	17

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73	Neuronal transport defects of the MAP6 KO mouse $\hat{a}\in$ a model of schizophrenia $\hat{a}\in$ and alleviation by Epothilone D treatment, as observed using MEMRI. NeuroImage, 2014, 96, 133-142.	2.1	33
74	In vivo imaging of vessel diameter, size, and density: A comparative study between MRI and histology. Magnetic Resonance in Medicine, 2013, 69, 18-26.	1.9	59
75	Synchrotron microbeam radiation therapy induces hypoxia in intracerebral gliosarcoma but not in the normal brain. Radiotherapy and Oncology, 2013, 108, 143-148.	0.3	78
76	Manganese enhanced MRI in rat hippocampus: A correlative study with synchrotron X-ray microprobe. Neurolmage, 2013, 64, 10-18.	2.1	21
77	T2-*weighted perfusion MRI. Diagnostic and Interventional Imaging, 2013, 94, 1205-1209.	1.8	5
78	Changes in Brain Tissue Oxygenation After Treatment of Diffuse Traumatic Brain Injury by Erythropoietin*. Critical Care Medicine, 2013, 41, 1316-1324.	0.4	26
79	A Simulation Tool for Dynamic Contrast Enhanced MRI. PLoS ONE, 2013, 8, e57636.	1.1	23
80	Is T2* Enough to Assess Oxygenation? Quantitative Blood Oxygen Level–Dependent Analysis in Brain Tumor. Radiology, 2012, 262, 495-502.	3.6	72
81	Monochromatic Minibeams Radiotherapy: From Healthy Tissue-Sparing Effect Studies Toward First Experimental Glioma Bearing Rats Therapy. International Journal of Radiation Oncology Biology Physics, 2012, 82, e693-e700.	0.4	51
82	Magnetic Resonance Imaging and Fluorescence Labeling of Clinical-Grade Mesenchymal Stem Cells Without Impacting Their Phenotype: Study in a Rat Model of Stroke. Stem Cells Translational Medicine, 2012, 1, 333-340.	1.6	32
83	Evaluation of the Relationship between MR Estimates of Blood Oxygen Saturation and Hypoxia: Effect of an Antiangiogenic Treatment on a Gliosarcoma Model. Radiology, 2012, 265, 743-752.	3.6	27
84	Quantitative MR estimates of blood oxygenation based on $T2*: A numerical study of the impact of model assumptions. Magnetic Resonance in Medicine, 2012, 67, 1458-1468.$	1.9	29
85	Intracerebral injection of human mesenchymal stem cells impacts cerebral microvasculature after experimental stroke: MRI study. NMR in Biomedicine, 2012, 25, 1340-1348.	1.6	31
86	Vessel size index measurements in a rat model of glioma: comparison of the dynamic (Gd) and steadyâ€state (ironâ€oxide) susceptibility contrast MRI approaches. NMR in Biomedicine, 2012, 25, 218-226.	1.6	26
87	Spatially resolved imaging methods to probe metals in the brain: from subcellular to organ level. , 2012, , 211-222.		1
88	Distribution and Radiosensitizing Effect of Cholesterol-Coupled Dbait Molecule in Rat Model of Glioblastoma. PLoS ONE, 2012, 7, e40567.	1,1	21
89	Evaluation of a quantitative blood oxygenation levelâ€dependent (qBOLD) approach to map local blood oxygen saturation. NMR in Biomedicine, 2011, 24, 393-403.	1.6	72
90	Cell-Permeable Ln(III) Chelate-Functionalized InP Quantum Dots As Multimodal Imaging Agents. ACS Nano, 2011, 5, 8193-8201.	7.3	87

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91	Reduced brain edema and functional deficits after treatment of diffuse traumatic brain injury by carbamylated erythropoietin derivative*. Critical Care Medicine, 2011, 39, 2099-2105.	0.4	30
92	Assessment of multiparametric MRI in a human glioma model to monitor cytotoxic and antiâ€angiogenic drug effects. NMR in Biomedicine, 2011, 24, 473-482.	1.6	35
93	Ultrasmall Rigid Particles as Multimodal Probes for Medical Applications. Angewandte Chemie - International Edition, 2011, 50, 12299-12303.	7.2	156
94	Monochromatic minibeam radiotherapy: theoretical and experimental dosimetry for preclinical treatment plans. Physics in Medicine and Biology, 2011, 56, 4465-4480.	1.6	8
95	Preferential Effect of Synchrotron Microbeam Radiation Therapy on Intracerebral 9L Gliosarcoma Vascular Networks. International Journal of Radiation Oncology Biology Physics, 2010, 78, 1503-1512.	0.4	149
96	The Impact of Erythropoietin on Short-Term Changes in Phosphorylation of Brain Protein Kinases in a Rat Model of Traumatic Brain Injury. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 361-369.	2.4	27
97	NG2-expressing glial precursor cells are a new potential oligodendroglioma cell initiating population in N -ethyl- N -nitrosourea-induced gliomagenesis. Carcinogenesis, 2010, 31, 1718-1725.	1.3	27
98	Monitoring Blood-Brain Barrier Status in a Rat Model of Glioma Receiving Therapy: Dual Injection of Low-Molecular-Weight and Macromolecular MR Contrast Media. Radiology, 2010, 257, 342-352.	3.6	48
99	Impaired fMRI activation in patients with primary brain tumors. NeuroImage, 2010, 52, 538-548.	2.1	76
100	High-Precision Radiosurgical Dose Delivery by Interlaced Microbeam Arrays of High-Flux Low-Energy Synchrotron X-Rays. PLoS ONE, 2010, 5, e9028.	1.1	79
101	Characterization of Tumor Angiogenesis in Rat Brain Using Iron-Based Vessel Size Index MRI in Combination with Gadolinium-Based Dynamic Contrast-Enhanced MRI. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 1714-1726.	2.4	65
102	PO2 Matters in Stem Cell Culture. Cell Stem Cell, 2009, 5, 242-243.	5. 2	49
103	Intravenous Administration of ^{99m} Tc-HMPAO-Labeled Human Mesenchymal Stem Cells after Stroke: In Vivo Imaging and Biodistribution. Cell Transplantation, 2009, 18, 1369-1379.	1.2	138
104	Blood–brain barrier permeability to manganese and to Gdâ€DOTA in a rat model of transient cerebral ischaemia. NMR in Biomedicine, 2008, 21, 427-436.	1.6	21
105	Assessment of blood volume, vessel size, and the expression of angiogenic factors in two rat glioma models: a longitudinal <i>in vivo</i> and <i>ex vivo</i> study. NMR in Biomedicine, 2008, 21, 1043-1056.	1.6	98
106	Evaluation of tumor response to carmustin and sorafenib with magnetic resonance imaging in orthotopic human glioblastoma models xenografted in nude rats. European Journal of Cancer, Supplement, 2008, 6, 28.	2.2	0
107	In vivo MRI tracking of exogenous monocytes/macrophages targeting brain tumors in a rat model of glioma. NeuroImage, 2008, 40, 973-983.	2.1	67
108	Brain tumor vessel response to synchrotron microbeam radiation therapy: a short-term <i>in vivo</i> study. Physics in Medicine and Biology, 2008, 53, 3609-3622.	1.6	72

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109	Brain, Head, and Neck., 2008, , 169-533.		1
110	In vivo MRI tracking of exogenous monocytes/macrophages targeting brain tumors in a rat model of glioma. Neurolmage, 2007, 37, S47-S58.	2.1	55
111	Improvedk-space trajectory measurement with signal shifting. Magnetic Resonance in Medicine, 2007, 58, 200-205.	1.9	27
112	The Ammonium-Induced Increase in Rat Brain Lactate Concentration is Rapid and Reversible and is Compatible with Trafficking and Signaling Roles for Ammonium. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1830-1840.	2.4	14
113	A low temperature embedding and section registration strategy for 3D image reconstruction of the rat brain from autoradiographic sections. Journal of Neuroscience Methods, 2006, 158, 242-250.	1.3	14
114	Comparative Overview of Brain Perfusion Imaging Techniques. Stroke, 2005, 36, 2032-2033.	1.0	112
115	Focal brain ischemia in rat: acute changes in brain tissueT1 reflect acute increase in brain tissue water content. NMR in Biomedicine, 2005, 18, 499-506.	1.6	36
116	Comparative Overview of Brain Perfusion Imaging Techniques. Stroke, 2005, 36, e83-99.	1.0	397
117	Comparative overview of brain perfusion imaging techniques. Journal of Neuroradiology, 2005, 32, 294-314.	0.6	141
118	Mathematical Modelling of an Ischemic Stroke: An Integrative Approach. Acta Biotheoretica, 2004, 52, 255-272.	0.7	25
119	A model of blood-brain barrier permeability to water: Accounting for blood inflow and longitudinal relaxation effects. Magnetic Resonance in Medicine, 2002, 47, 1100-1109.	1.9	23
120	Imaging cortical anatomy by high-resolution MR at 3.0T: Detection of the stripe of Gennari in visual area 17. Magnetic Resonance in Medicine, 2002, 48, 735-738.	1.9	151
121	Methodology of brain perfusion imaging. Journal of Magnetic Resonance Imaging, 2001, 13, 496-520.	1.9	361
122	Perfusion imaging using dynamic arterial spin labeling (DASL). Magnetic Resonance in Medicine, 2001, 45, 1021-1029.	1.9	69
123	A model of the dual effect of gadopentetate dimeglumine on dynamic brain MR images. Journal of Magnetic Resonance Imaging, 1999, 10, 242-253.	1.9	49
124	Perfusion analysis using dynamic arterial spin labeling (DASL). Magnetic Resonance in Medicine, 1999, 41, 299-308.	1.9	42
125	Perfusion analysis using dynamic arterial spin labeling (DASL). , 1999, 41, 299.		1
126	Simultaneous Glutamate and Perfusion fMRI Responses to Regional Brain Stimulation. Journal of Cerebral Blood Flow and Metabolism, 1998, 18, 1064-1070.	2.4	15

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127	Radial Echo-Planar Imaging. Journal of Magnetic Resonance, 1998, 135, 242-247.	1.2	16