Nathaniel M Alpert

List of Publications by Year
in descending order

61 papers	5,400 citations	147801 31 h-index	149698 56 g-index
61 all docs	61 docs citations	61 times ranked	4804 citing authors

#	Article	IF	Citations
1	Topographical representations of mental images in primary visual cortex. Nature, 1995, 378, 496-498.	27.8	798
2	Visual Mental Imagery Activates Topographically Organized Visual Cortex: PET Investigations. Journal of Cognitive Neuroscience, 1993, 5, 263-287.	2.3	642
3	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. Psychophysiology, 1998, 35, 151-161.	2.4	543
4	Impaired recruitment of the hippocampus during conscious recollection in schizophrenia. Nature Neuroscience, 1998, 1, 318-323.	14.8	529
5	Effects of Syntactic Structure and Propositional Number on Patterns of Regional Cerebral Blood Flow. Journal of Cognitive Neuroscience, 1998, 10, 541-552.	2.3	433
6	A PET investigation of implicit and explicit sequence learning. Human Brain Mapping, 1995, 3, 271-286.	3.6	215
7	Functional imaging of human right hemispheric activation for exploratory movements. Annals of Neurology, 1996, 39, 174-179.	5.3	147
8	A novel method for noninvasive detection of neuromodulatory changes in specific neurotransmitter systems. NeuroImage, 2003, 19, 1049-1060.	4.2	131
9	Individual Differences in Cerebral Blood Flow in Area 17 Predict the Time to Evaluate Visualized Letters. Journal of Cognitive Neuroscience, 1996, 8, 78-82.	2.3	118
10	Striatal dopamine release in sequential learning. NeuroImage, 2007, 38, 549-556.	4.2	118
11	Neurovascular coupling to D2/D3 dopamine receptor occupancy using simultaneous PET/functional MRI. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11169-11174.	7.1	112
12	Rapid detection of Parkinson's disease by SPECT with altropane: A selective ligand for dopamine transporters. , 1998, 29, 128-141.		104
13	A Positron Emission Tomographic Study of Symptom Provocation in PTSD. Annals of the New York Academy of Sciences, 1997, 821, 521-523.	3.8	102
14	Auditory Priming within and across Modalities: Evidence from Positron Emission Tomography. Journal of Cognitive Neuroscience, 1999, 11, 337-348.	2.3	98
15	A Method for Assessing the Accuracy of Intersubject Registration of the Human Brain Using Anatomic Landmarks. NeuroImage, 1999, 9, 250-268.	4.2	94
16	Neural systems that encode categorical versus coordinate spatial relations: PET investigations. Cognitive, Affective and Behavioral Neuroscience, 1998, 26, 333-347.	1.3	78
17	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. Psychophysiology, 1998, 35, 151-161.	2.4	75
18	Dopamine release during human emotional processing. NeuroImage, 2009, 47, 2041-2045.	4.2	66

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19	Identifying objects at different levels of hierarchy: A positron emission tomography study. Human Brain Mapping, 1995, 3, 107-132.	3.6	63
20	Improved Signal-to-Noise Ratio in Parametric Images by Cluster Analysis. NeuroImage, 1999, 9, 554-561.	4.2	62
21	In vivo imaging of neuromodulation using positron emission tomography: Optimal ligand characteristics and task length for detection of activation. Human Brain Mapping, 1995, 3, 35-55.	3.6	58
22	[11C,127I] Altropane: A highly selective ligand for PET imaging of dopamine transporter sites. Synapse, 2001, 39, 332-342.	1.2	57
23	A receptor-based model for dopamine-induced fMRI signal. NeuroImage, 2013, 75, 46-57.	4.2	57
24	In vivo imaging of neuromodulatory synaptic transmission using PET: A review of relevant neurophysiology. Human Brain Mapping, 1995, 3, 24-34.	3.6	50
25	Striatal dopamine release during unrewarded motor task in human volunteers. NeuroReport, 2003, 14, 1421-1424.	1.2	45
26	Bias Atlases for Segmentation-Based PET Attenuation Correction Using PET-CT and MR. IEEE Transactions on Nuclear Science, 2013, 60, 3373-3382.	2.0	42
27	Frontostriatal and Dopamine Markers of Individual Differences in Reinforcement Learning: A Multi-modal Investigation. Cerebral Cortex, 2018, 28, 4281-4290.	2.9	38
28	Mapping of local renal blood flow with PET and H(2)(15)O. Journal of Nuclear Medicine, 2002, 43, 470-5.	5.0	36
29	Quantification of dopamine transporter density in monkeys by dynamic PET imaging of multiple injections of 11C-CFT. , 1996, 24, 262-272.		33
30	Dehydrogenase regulation of metabolite oxidation and efflux from mitochondria in intact hearts. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 274, H467-H476.	3.2	33
31	Explicit motor memory activates the striatal dopamine system. NeuroReport, 2008, 19, 409-412.	1.2	33
32	Factors Influencing Regional Myocardial Contractile Response to Inotropic Stimulation. Circulation, 1996, 94, 643-650.	1.6	33
33	The 15O Steady-State Method: Correction for Variation in Arterial Concentration. Journal of Cerebral Blood Flow and Metabolism, 1988, 8, 681-690.	4.3	31
34	Positron imaging in ischemic stroke disease. Annals of Neurology, 1984, 15, 126-130.	5.3	30
35	Optimization of dynamic measurement of receptor kinetics by wavelet denoising. NeuroImage, 2006, 30, 444-451.	4.2	30
36	Quantitative in vivo mapping of myocardial mitochondrial membrane potential. PLoS ONE, 2018, 13, e0190968.	2.5	30

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37	Comparison of Two Compartmental Models for Describing Receptor Ligand Kinetics and Receptor Availability in Multiple Injection PET Studies. Journal of Cerebral Blood Flow and Metabolism, 1996, 16, 841-853.	4.3	27
38	Mapping 15O Production Rate for Proton Therapy Verification. International Journal of Radiation Oncology Biology Physics, 2015, 92, 453-459.	0.8	23
39	Brain rCBF and performance in visual imagery tasks: Common and distinct processes. European Journal of Cognitive Psychology, 2004, 16, 696-716.	1.3	21
40	Coregistration of Head CT Comparison Studies. Academic Radiology, 2003, 10, 242-248.	2.5	17
41	In vivo quantitative mapping of human mitochondrial cardiac membrane potential: a feasibility study. European Journal of Nuclear Medicine and Molecular Imaging, 2021, 48, 414-420.	6.4	16
42	Performance Evaluation of an Automated System for Registration and Postprocessing of CT Scans. Journal of Computer Assisted Tomography, 2001, 25, 747-752.	0.9	15
43	A general method of Bayesian estimation for parametric imaging of the brain. NeuroImage, 2009, 45, 1183-1189.	4.2	15
44	Singleâ€scan rest/stress imaging ¹⁸Fâ€labeled flow tracers. Medical Physics, 2012, 39, 6609-6620.	3.0	14
45	Body motion detection and correction in cardiac PET: Phantom and human studies. Medical Physics, 2019, 46, 4898-4906.	3.0	14
46	Single-scan rest/stress imaging: validation in a porcine model with 18F-Flurpiridaz. European Journal of Nuclear Medicine and Molecular Imaging, 2017, 44, 1538-1546.	6.4	13
47	Quantification of Myocardial Mitochondrial Membrane Potential Using PET. Current Cardiology Reports, 2021, 23, 70.	2.9	9
48	In vivo quantification of mitochondrial membrane potential. Nature, 2020, 583, E17-E18.	27.8	8
49	Regional perfusion, oxygen metabolism, blood volume and immunoglobulin G accumulation at focal sites of infection in rabbits. European Journal of Nuclear Medicine and Molecular Imaging, 1992, 19, 166-72.	2.1	7
50	Parametric imaging with Bayesian priors: A validation study with 11C-Altropane PET. NeuroImage, 2012, 61, 131-138.	4.2	7
51	PET imaging of mitochondrial function in acute doxorubicin-induced cardiotoxicity: a proof-of-principle study. Scientific Reports, 2022, 12, 6122.	3.3	7
52	Positron Imaging Instrumentation. IEEE Transactions on Nuclear Science, 1977, 24, 914-916.	2.0	5
53	In-vivo Imaging of Mitochondrial Depolarization of Myocardium With Positron Emission Tomography and a Proton Gradient Uncoupler. Frontiers in Physiology, 2020, 11, 491.	2.8	5
54	Preclinical Validation of a Single-Scan Rest/Stress Imaging Technique for ¹³ N-Ammonia Positron Emission Tomography Cardiac Perfusion Studies. Circulation: Cardiovascular Imaging, 2020, 13, e009407.	2.6	5

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55	Comparison of three semiautomatic methods for determination of left ventricular ejection fraction from gated cardiac blood pool images. European Journal of Nuclear Medicine and Molecular Imaging, 1985, 10-10, 494-9.	2.1	3
56	Measurement of both left ventricular function and regional myocardial perfusion with 133Xe in dogs. European Journal of Nuclear Medicine and Molecular Imaging, 1987, 12, 533-541.	2.1	2
57	Rapid computation of single <scp>PET</scp> scan restâ€stress myocardial blood flow parametric images by table look up. Medical Physics, 2017, 44, 4643-4651.	3.0	1
58	Awake animal functional imaging to investigate the effects of general anesthesia on brain. , 2018, , .		1
59	PET imaging of neurotransmission using direct parametric reconstruction. NeuroImage, 2020, 221, 117154.	4.2	1
60	Optimization of wavelet processing of dynamic PET data. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S639-S639.	4.3	0
61	Factors Influencing Isotope Equilibrium Rates Affect 11 C PET Analysis. Circulation, 1999, 99, .	1.6	0