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	PET imaging of mitochondrial function in acute doxorubicin-induced cardiotoxicity: a proof-of-principle study. Scientific Reports, 2022, 12, 6122.	3.3	7
2	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
3	Quantification of Myocardial Mitochondrial Membrane Potential Using PET. Current Cardiology Reports, 2021, 23, 70.	2.9	9
4	PET imaging of neurotransmission using direct parametric reconstruction. NeuroImage, 2020, 221, 117154.	4.2	1
5	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
6	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
7	In vivo quantification of mitochondrial membrane potential. Nature, 2020, 583, E17-E18.	27.8	8
8	Body motion detection and correction in cardiac PET: Phantom and human studies. Medical Physics, 2019, 46, 4898-4906.	3.0	14
9	Frontostriatal and Dopamine Markers of Individual Differences in Reinforcement Learning: A Multi-modal Investigation. Cerebral Cortex, 2018, 28, 4281-4290.	2.9	38
10	Awake animal functional imaging to investigate the effects of general anesthesia on brain. , 2018, , .		1
11	Quantitative in vivo mapping of myocardial mitochondrial membrane potential. PLoS ONE, 2018, 13, e0190968.	2.5	30
12	Rapid computation of single PET scan rest–stress myocardial blood flow parametric images by table look up. Medical Physics, 2017, 44, 4643-4651.	3.0	1
13	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
14	Mapping 15O Production Rate for Proton Therapy Verification. International Journal of Radiation Oncology Biology Physics, 2015, 92, 453-459.	0.8	23
15	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
16	A receptor-based model for dopamine-induced fMRI signal. NeuroImage, 2013, 75, 46-57.	4.2	57
17	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
18	Single-scan rest/stress imaging ^{18}F-labeled flow tracers. Medical Physics, 2012, 39, 6609-6620.	3.0	14

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19	Parametric imaging with Bayesian priors: A validation study with 11C-Altropane PET. NeuroImage, 2012, 61, 131-138.	4.2	7
20	A general method of Bayesian estimation for parametric imaging of the brain. NeuroImage, 2009, 45, 1183-1189.	4.2	15
21	Dopamine release during human emotional processing. NeuroImage, 2009, 47, 2041-2045.	4.2	66
22	Explicit motor memory activates the striatal dopamine system. NeuroReport, 2008, 19, 409-412.	1.2	33
23	Striatal dopamine release in sequential learning. NeuroImage, 2007, 38, 549-556.	4.2	118
24	Optimization of dynamic measurement of receptor kinetics by wavelet denoising. NeuroImage, 2006, 30, 444-451.	4.2	30
25	Optimization of wavelet processing of dynamic PET data. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S639-S639.	4.3	0
26	Brain rCBF and performance in visual imagery tasks: Common and distinct processes. European Journal of Cognitive Psychology, 2004, 16, 696-716.	1.3	21
27	A novel method for noninvasive detection of neuromodulatory changes in specific neurotransmitter systems. NeuroImage, 2003, 19, 1049-1060.	4.2	131
28	Coregistration of Head CT Comparison Studies. Academic Radiology, 2003, 10, 242-248.	2.5	17
29	Striatal dopamine release during unrewarded motor task in human volunteers. NeuroReport, 2003, 14, 1421-1424.	1.2	45
30	Mapping of local renal blood flow with PET and H(2)(15)O. Journal of Nuclear Medicine, 2002, 43, 470-5.	5.0	36
31	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
32	[11C,127I] Altropane: A highly selective ligand for PET imaging of dopamine transporter sites. Synapse, 2001, 39, 332-342.	1.2	57
33	Auditory Priming within and across Modalities: Evidence from Positron Emission Tomography. Journal of Cognitive Neuroscience, 1999, 11, 337-348.	2.3	98
34	Improved Signal-to-Noise Ratio in Parametric Images by Cluster Analysis. NeuroImage, 1999, 9, 554-561.	4.2	62
35	A Method for Assessing the Accuracy of Intersubject Registration of the Human Brain Using Anatomic Landmarks. NeuroImage, 1999, 9, 250-268.	4.2	94
36	Factors Influencing Isotope Equilibrium Rates Affect 11 C PET Analysis. Circulation, 1999, 99, .	1.6	0

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37	Impaired recruitment of the hippocampus during conscious recollection in schizophrenia. Nature Neuroscience, 1998, 1, 318-323.	14.8	529
38	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. Psychophysiology, 1998, 35, 151-161.	2.4	543
39	Rapid detection of Parkinson's disease by SPECT with altropane: A selective ligand for dopamine transporters. , 1998, 29, 128-141.		104
40	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
41	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
42	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. Psychophysiology, 1998, 35, 151-161.	2.4	75
43	Neural systems that encode categorical versus coordinate spatial relations: PET investigations. Cognitive, Affective and Behavioral Neuroscience, 1998, 26, 333-347.	1.3	78
44	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
45	Functional imaging of human right hemispheric activation for exploratory movements. Annals of Neurology, 1996, 39, 174-179.	5.3	147
46	Quantification of dopamine transporter density in monkeys by dynamic PET imaging of multiple injections of 11C-CFT. , 1996, 24, 262-272.		33
47	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
48	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
49	Factors Influencing Regional Myocardial Contractile Response to Inotropic Stimulation. Circulation, 1996, 94, 643-650.	1.6	33
50	In vivo imaging of neuromodulatory synaptic transmission using PET: A review of relevant neurophysiology. Human Brain Mapping, 1995, 3, 24-34.	3.6	50
51	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
52	Identifying objects at different levels of hierarchy: A positron emission tomography study. Human Brain Mapping, 1995, 3, 107-132.	3.6	63
53	A PET investigation of implicit and explicit sequence learning. Human Brain Mapping, 1995, 3, 271-286.	3.6	215
54	Topographical representations of mental images in primary visual cortex. Nature, 1995, 378, 496-498.	27.8	798

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55	Visual Mental Imagery Activates Topographically Organized Visual Cortex: PET Investigations. Journal of Cognitive Neuroscience, 1993, 5, 263-287.	2.3	642
56	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
57	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
58	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
59	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
60	Positron imaging in ischemic stroke disease. Annals of Neurology, 1984, 15, 126-130.	5.3	30
61	Positron Imaging Instrumentation. IEEE Transactions on Nuclear Science, 1977, 24, 914-916.	2.0	5