Alan Pradip Jasanoff

List of Publications by Year
in descending order

60	3,440	201674 27	144013 57
papers	citations	h-index	g-index

66	66	66	5417
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exceedingly small iron oxide nanoparticles as positive MRI contrast agents. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2325-2330.	7.1	374
2	Water-soluble porphyrins as a dual-function molecular imaging platform for MRI and fluorescence zinc sensing. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10780-10785.	7.1	276
3	Magneto-fluorescent core-shell supernanoparticles. Nature Communications, 2014, 5, 5093.	12.8	223
4	Calcium-sensitive MRI contrast agents based on superparamagnetic iron oxide nanoparticles and calmodulin. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14707-14712.	7.1	220
5	Directed evolution of a magnetic resonance imaging contrast agent for noninvasive imaging of dopamine. Nature Biotechnology, 2010, 28, 264-270.	17.5	151
6	Spontaneous Generation of Prion Infectivity in Fatal Familial Insomnia Knockin Mice. Neuron, 2009, 63, 438-450.	8.1	131
7	T2 relaxation induced by clusters of superparamagnetic nanoparticles: Monte Carlo simulations. Magnetic Resonance Imaging, 2008, 26, 994-998.	1.8	128
8	Nitroxide-Based Macromolecular Contrast Agents with Unprecedented Transverse Relaxivity and Stability for Magnetic Resonance Imaging of Tumors. ACS Central Science, 2017, 3, 800-811.	11.3	126
9	Molecular-Level Functional Magnetic Resonance Imaging of Dopaminergic Signaling. Science, 2014, 344, 533-535.	12.6	115
10	Bacterial encapsulins as orthogonal compartments for mammalian cell engineering. Nature Communications, 2018, 9, 1990.	12.8	88
11	High-Performance Ferrite Nanoparticles through Nonaqueous Redox Phase Tuning. Nano Letters, 2016, 16, 1345-1351.	9.1	84
12	Metal-Substituted Protein MRI Contrast Agents Engineered for Enhanced Relaxivity and Ligand Sensitivity. Journal of the American Chemical Society, 2011, 133, 649-651.	13.7	83
13	Sensing intracellular calcium ions using a manganese-based MRI contrast agent. Nature Communications, 2019, 10, 897.	12.8	75
14	In Vivo Imaging with a Cell-Permeable Porphyrin-Based MRI Contrast Agent. Chemistry and Biology, 2010, 17, 665-673.	6.0	74
15	Protein Nanoparticles Engineered to Sense Kinase Activity in MRI. Journal of the American Chemical Society, 2009, 131, 2484-2486.	13.7	73
16	Calcium-dependent molecular fMRI using a magnetic nanosensor. Nature Nanotechnology, 2018, 13, 473-477.	31.5	71
17	MRI contrast agents for functional molecular imaging of brain activity. Current Opinion in Neurobiology, 2007, 17, 593-600.	4.2	70
18	Dynamic imaging with MRI contrast agents: quantitative considerations. Magnetic Resonance Imaging, 2006, 24, 449-462.	1.8	67

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19	Triply Loaded Nitroxide Brush-Arm Star Polymers Enable Metal-Free Millimetric Tumor Detection by Magnetic Resonance Imaging. ACS Nano, 2018, 12, 11343-11354.	14.6	56
20	Polyoxazoline-Based Bottlebrush and Brush-Arm Star Polymers via ROMP: Syntheses and Applications as Organic Radical Contrast Agents. ACS Macro Letters, 2019, 8, 473-478.	4.8	55
21	Local and global consequences of reward-evoked striatal dopamine release. Nature, 2020, 580, 239-244.	27.8	55
22	Engineering intracellular biomineralization and biosensing by a magnetic protein. Nature Communications, 2015, 6, 8721.	12.8	51
23	Profoundly different prion diseases in knock-in mice carrying single PrP codon substitutions associated with human diseases. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14759-14764.	7.1	47
24	Functional MRI using molecular imaging agents. Trends in Neurosciences, 2005, 28, 120-126.	8.6	45
25	Structure-Guided Directed Evolution of Highly Selective P450-Based Magnetic Resonance Imaging Sensors for Dopamine and Serotonin. Journal of Molecular Biology, 2012, 422, 245-262.	4.2	40
26	Molecular fMRI. Journal of Neuroscience, 2016, 36, 4139-4148.	3.6	39
27	Molecular fMRI of Serotonin Transport. Neuron, 2016, 92, 754-765.	8.1	37
28	Molecular imaging with engineered physiology. Nature Communications, 2016, 7, 13607.	12.8	33
29	Probing the brain with molecular fMRI. Current Opinion in Neurobiology, 2018, 50, 201-210.	4.2	30
30	Neurotransmitter-Responsive Nanosensors for T₂-Weighted Magnetic Resonance Imaging. Journal of the American Chemical Society, 2019, 141, 15751-15754.	13.7	30
31	Preparation of iron oxide-based calcium sensors for MRI. Nature Protocols, 2007, 2, 2582-2589.	12.0	28
32	In vivo magnetic resonance microscopy of brain structure in unanesthetized flies. Journal of Magnetic Resonance, 2002, 158, 79-85.	2.1	27
33	Membrane-Permeable Mn(III) Complexes for Molecular Magnetic Resonance Imaging of Intracellular Targets. Journal of the American Chemical Society, 2016, 138, 5483-5486.	13.7	27
34	Genetically controlled MRI contrast mechanisms and their prospects in systems neuroscience research. Magnetic Resonance Imaging, 2007, 25, 1004-1010.	1.8	26
35	A Secreted Enzyme Reporter System for MRI. Angewandte Chemie - International Edition, 2010, 49, 3909-3911.	13.8	26
36	MRI-Based Detection of Alkaline Phosphatase Gene Reporter Activity Using a Porphyrin Solubility Switch. Chemistry and Biology, 2014, 21, 422-429.	6.0	26

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37	Bloodless fMRI. Trends in Neurosciences, 2007, 30, 603-610.	8.6	25
38	Metalloproteinâ€based MRI probes. FEBS Letters, 2013, 587, 1021-1029.	2.8	23
39	Customizing MRIâ€Compatible Multifunctional Neural Interfaces through Fiber Drawing. Advanced Functional Materials, 2021, 31, 2104857.	14.9	21
40	Wireless resonant circuits for the minimally invasive sensing of biophysical processes in magnetic resonance imaging. Nature Biomedical Engineering, 2019, 3, 69-78.	22.5	20
41	Pro-organic radical contrast agents (â€œpro-ORCAsâ€) for real-time MRI of pro-drug activation in biological systems. Polymer Chemistry, 2020, 11, 4768-4779.	3.9	20
42	Single-nanometer iron oxide nanoparticles as tissue-permeable MRI contrast agents. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	20
43	In vivo oxygen detection using exogenous hemoglobin as a contrast agent in magnetic resonance microscopy. Magnetic Resonance in Medicine, 2003, 49, 609-614.	3.0	19
44	Challenges for molecular neuroimaging with MRI. International Journal of Imaging Systems and Technology, 2010, 20, 71-79.	4.1	18
45	Molecular Magnetic Resonance Imaging of Nitric Oxide in Biological Systems. ACS Sensors, 2020, 5, 1674-1682.	7.8	18
46	Problems on the back of an envelope. ELife, 2016, 5, .	6.0	18
47	MRI Sensing Based on the Displacement of Paramagnetic Ions from Chelated Complexes. Inorganic Chemistry, 2010, 49, 2589-2591.	4.0	17
48	Metallotexaphyrins as MRI-Active Catalytic Antioxidants for Neurodegenerative Disease: A Study on Alzheimerâ€™s Disease. CheM, 2020, 6, 703-724.	11.7	17
49	Bioengineered Probes for Molecular Magnetic Resonance Imaging in the Nervous System. ACS Chemical Neuroscience, 2012, 3, 593-602.	3.5	16
50	Target-responsive vasoactive probes for ultrasensitive molecular imaging. Nature Communications, 2020, 11, 2399.	12.8	13
51	Context-dependent perturbation of neural systems in transgenic mice expressing a cytosolic prion protein. NeuroImage, 2010, 49, 2607-2617.	4.2	11
52	Functional dissection of neural circuitry using a genetic reporter for fMRI. Nature Neuroscience, 2022, 25, 390-398.	14.8	11
53	Magnetic nanosensors optimized for rapid and reversible self-assembly. Chemical Communications, 2014, 50, 3595-3598.	4.1	10
54	Reward magnitude tracking by neural populations in ventral striatum. NeuroImage, 2017, 146, 1003-1015.	4.2	9

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55	Image-guided neural activity manipulation with a paramagnetic drug. Nature Communications, 2020, 11, 136.	12.8	9
56	Molecular fMRI of neurochemical signaling. Journal of Neuroscience Methods, 2021, 364, 109372.	2.5	7
57	Screen-Based Analysis of Magnetic Nanoparticle Libraries Formed Using Peptidic Iron Oxide Ligands. Journal of the American Chemical Society, 2014, 136, 12516-12519.	13.7	5
58	Directed Evolution of Protein-Based Neurotransmitter Sensors for MRI. Methods in Molecular Biology, 2013, 995, 193-205.	0.9	3
59	Hemodynamic molecular imaging of tumor-associated enzyme activity in the living brain. ELife, 2021, 10, .	6.0	1
60	Contrast Agents for Molecular-Level fMRI. Biological Magnetic Resonance, 2015, , 865-894.	0.4	0