Jianghong Rao

List of Publications by Year
in descending order

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127 papers	14,499 citations	19657 61 h-index	19190 118 g-index
152 all docs	152 docs citations	152 times ranked	15746 citing authors

#	Article	IF	Citations
1	Reversibly Photoswitching Upconversion Nanoparticles for Superâ€Sensitive Photoacoustic Molecular Imaging. Angewandte Chemie - International Edition, 2022, 61, .	13.8	21
2	Reversibly Photoswitching Upconversion Nanoparticles for Superâ€Sensitive Photoacoustic Molecular Imaging. Angewandte Chemie, 2022, 134, .	2.0	5
3	Multiparameter Longitudinal Imaging of Immune Cell Activity in Chimeric Antigen Receptor T Cell and Checkpoint Blockade Therapies. ACS Central Science, 2022, 8, 590-602.	11.3	15
4	Mitochondrial copper depletion suppresses triple-negative breast cancer in mice. Nature Biotechnology, 2021, 39, 357-367.	17.5	163
5	Different PEGâ€PLGA Matrices Influence In Vivo Optical/Photoacoustic Imaging Performance and Biodistribution of NIRâ€Emitting Ï€â€Conjugated Polymer Contrast Agents. Advanced Healthcare Materials, 2021, 10, e2001089.	7.6	9
6	Engineering of magnetic nanoparticles as magnetic particle imaging tracers. Chemical Society Reviews, 2021, 50, 8102-8146.	38.1	64
7	In Vivo Imaging of Methionine Aminopeptidase II for Prostate Cancer Risk Stratification. Cancer Research, 2021, 81, 2510-2521.	0.9	8
8	[18F]-C-SNAT4: an improved caspase-3-sensitive nanoaggregation PET tracer for imaging of tumor responses to chemo- and immunotherapies. European Journal of Nuclear Medicine and Molecular Imaging, 2021, 48, 3386-3399.	6.4	13
9	Visualizing the dynamics of tuberculosis pathology using molecular imaging. Journal of Clinical Investigation, 2021, 131, .	8.2	12
10	Evaluation of a procaspase-3 activator with hydroxyurea or temozolomide against high-grade meningioma in cell culture and canine cancer patients. Neuro-Oncology, 2021, 23, 1723-1735.	1.2	4
11	A dual-caged resorufin probe for rapid screening of infections resistant to lactam antibiotics. Chemical Science, 2021, 12, 9153-9161.	7.4	14
12	Exploring the Condensation Reaction between Aromatic Nitriles and Amino Thiols To Optimize Inâ€...Situ Nanoparticle Formation for the Imaging of Proteases and Glycosidases in Cells. Angewandte Chemie, 2020, 132, 3298-3305.	2.0	16
13	Exploring the Condensation Reaction between Aromatic Nitriles and Amino Thiols To Optimize Inâ€...Situ Nanoparticle Formation for the Imaging of Proteases and Glycosidases in Cells. Angewandte Chemie - International Edition, 2020, 59, 3272-3279.	13.8	57
14	Targeting MMP-14 for dual PET and fluorescence imaging of glioma in preclinical models. European Journal of Nuclear Medicine and Molecular Imaging, 2020, 47, 1412-1426.	6.4	29
15	Reduction TriggeredIn SituPolymerization in Living Mice. Journal of the American Chemical Society, 2020, 142, 15575-15584.	13.7	42
16	A Fluorogenic Trehalose Probe for Tracking Phagocytosed Mycobacterium tuberculosis. Journal of the American Chemical Society, 2020, 142, 15259-15264.	13.7	41
17	Engineered algae: A novel oxygen-generating system for effective treatment of hypoxic cancer. Science Advances, 2020, 6, eaba5996.	10.3	138
18	Imaging of tumour acidosis with PET. Nature Biomedical Engineering, 2020, 4, 250-251.	22.5	2

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19	Preâ€targeted Imaging of Protease Activity through Inâ€...Situ Assembly of Nanoparticles. Angewandte Chemie, 2020, 132, 7938-7944.	2.0	17
20	Preâ€targeted Imaging of Protease Activity through Inâ€...Situ Assembly of Nanoparticles. Angewandte Chemie - International Edition, 2020, 59, 7864-7870.	13.8	54
21	Carbon-coated FeCo nanoparticles as sensitive magnetic-particle-imaging tracers with photothermal and magnetothermal properties. Nature Biomedical Engineering, 2020, 4, 325-334.	22.5	160
22	Theranostic nanoparticles enhance the response of glioblastomas to radiation. Nanotheranostics, 2019, 3, 299-310.	5.2	13
23	A Review of Magnetic Particle Imaging and Perspectives on Neuroimaging. American Journal of Neuroradiology, 2019, 40, 206-212.	2.4	133
24	A Magneto-Optical Nanoplatform for Multimodality Imaging of Tumors in Mice. ACS Nano, 2019, 13, 7750-7758.	14.6	78
25	Bright sub-20-nm cathodoluminescent nanoprobes for electron microscopy. Nature Nanotechnology, 2019, 14, 420-425.	31.5	36
26	Magnetic Particle Imaging in Neurosurgery. World Neurosurgery, 2019, 125, 261-270.	1.3	31
27	[18F]-SuPAR: A Radiofluorinated Probe for Noninvasive Imaging of DNA Damage-Dependent Poly(ADP-ribose) Polymerase Activity. Bioconjugate Chemistry, 2019, 30, 1331-1342.	3.6	11
28	A Near-Infrared Phosphorescent Nanoprobe Enables Quantitative, Longitudinal Imaging of Tumor Hypoxia Dynamics during Radiotherapy. Cancer Research, 2019, 79, 4787-4797.	0.9	20
29	In Vivo Optical Performance of a New Class of Near-Infrared-Emitting Conjugated Polymers: Borylated PF8-BT. ACS Applied Materials & Interfaces, 2019, 11, 46525-46535.	8.0	15
30	Nanotechnology Strategies To Advance Outcomes in Clinical Cancer Care. ACS Nano, 2018, 12, 24-43.	14.6	192
31	Janus Iron Oxides @ Semiconducting Polymer Nanoparticle Tracer for Cell Tracking by Magnetic Particle Imaging. Nano Letters, 2018, 18, 182-189.	9.1	168
32	Recent progress on semiconducting polymer nanoparticles for molecular imaging and cancer phototherapy. Biomaterials, 2018, 155, 217-235.	11.4	404
33	Positron Emission Tomography Imaging of Tumor Apoptosis with a Caspase-Sensitive Nano-Aggregation Tracer [18F]C-SNAT. Methods in Molecular Biology, 2018, 1790, 181-195.	0.9	7
34	Gold Nanoparticles for Brain Tumor Imaging: A Systematic Review. Frontiers in Neurology, 2018, 9, 328.	2.4	55
35	Editorial Overview: Non-invasive molecular imaging: dedicated to the memory of Professor Roger Tsien. Current Opinion in Chemical Biology, 2018, 45, iv-vi.	6.1	0
36	Rapid and specific labeling of single live Mycobacterium tuberculosis with a dual-targeting fluorogenic probe. Science Translational Medicine, 2018, 10, .	12.4	59

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37	Real-time Imaging ofMycobacterium tuberculosis, Using a Novel Near-Infrared Fluorescent Substrate. Journal of Infectious Diseases, 2017, 215, jiw298.	4.0	19
38	A Tumorâ€Specific Cascade Amplification Drug Release Nanoparticle for Overcoming Multidrug Resistance in Cancers. Advanced Materials, 2017, 29, 1702342.	21.0	278
39	Intramolecular substitution uncages fluorogenic probes for detection of metallo-carbapenemase-expressing bacteria. Chemical Science, 2017, 8, 7669-7674.	7.4	18
40	A Novel Theranostic Strategy for MMP-14â€“Expressing Glioblastomas Impacts Survival. Molecular Cancer Therapeutics, 2017, 16, 1909-1921.	4.1	35
41	Intravital excitation increases detection sensitivity for pulmonary tuberculosis by wholeâ€body imaging with Î²â€lactamase reporter enzyme fluorescence. Journal of Biophotonics, 2017, 10, 821-829.	2.3	10
42	Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2017, 9, e1418.	6.1	42
43	[¹⁸F]GE-180 PET Detects Reduced Microglia Activation After LM11A-31 Therapy in a Mouse Model of Alzheimer's Disease. Theranostics, 2017, 7, 1422-1436.	10.0	64
44	Point-of-Care Detection of Î²-Lactamase in Milk with a Universal Fluorogenic Probe. Analytical Chemistry, 2016, 88, 5605-5609.	6.5	19
45	More Chemistry Is Needed for Molecular Imaging. Bioconjugate Chemistry, 2016, 27, 265-266.	3.6	1
46	Recent advances of semiconducting polymer nanoparticles in in vivo molecular imaging. Journal of Controlled Release, 2016, 240, 312-322.	9.9	182
47	Quantitative detection of cells expressing BlaC using droplet-based microfluidics for use in the diagnosis of tuberculosis. Biomicrofluidics, 2015, 9, 044120.	2.4	24
48	Molecular Magnetic Resonance Imaging of Tumor Response to Therapy. Scientific Reports, 2015, 5, 14759.	3.3	43
49	Diketopyrrolopyrroleâ€Based Semiconducting Polymer Nanoparticles for In Vivo Photoacoustic Imaging. Advanced Materials, 2015, 27, 5184-5190.	21.0	305
50	Magnetic Resonance Imaging of Stem Cell Apoptosis in Arthritic Joints with a Caspase Activatable Contrast Agent. ACS Nano, 2015, 9, 1150-1160.	14.6	67
51	Ultrasound-guided delivery of microRNA loaded nanoparticles into cancer. Journal of Controlled Release, 2015, 203, 99-108.	9.9	128
52	A Systematic Comparison of 18F-C-SNAT to Established Radiotracer Imaging Agents for the Detection of Tumor Response to Treatment. Clinical Cancer Research, 2015, 21, 3896-3905.	7.0	48
53	PET imaging of tumor glycolysis downstream of hexokinase through noninvasive measurement of pyruvate kinase M2. Science Translational Medicine, 2015, 7, 310ra169.	12.4	54
54	Semiconducting Polymer Nanoparticles with Persistent Nearâ€Infrared Luminescence for In Vivo Optical Imaging. Angewandte Chemie - International Edition, 2015, 54, 11477-11480.	13.8	159

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55	Preclinical Kinetic Analysis of the Caspase-3/7 PET Tracer ¹⁸F-C-SNAT: Quantifying the Changes in Blood Flow and Tumor Retention After Chemotherapy. Journal of Nuclear Medicine, 2015, 56, 1415-1421.	5.0	47
56	2-Cyanobenzothiazole (CBT) Condensation for Site-Specific Labeling of Proteins at the Terminal Cysteine Residues. Methods in Molecular Biology, 2015, 1266, 81-92.	0.9	12
57	Phosphorylcholineâ€Coated Semiconducting Polymer Nanoparticles as Rapid and Efficient Labeling Agents for In Vivo Cell Tracking. Advanced Healthcare Materials, 2014, 3, 1292-1298.	7.6	68
58	Real-time imaging of oxidative and nitrosative stress in the liver of live animals for drug-toxicity testing. Nature Biotechnology, 2014, 32, 373-380.	17.5	521
59	Bioorthogonal cyclization-mediated in situ self-assembly of small-molecule probes for imaging caspase activity in vivo. Nature Chemistry, 2014, 6, 519-526.	13.6	403
60	Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes in living mice. Nature Nanotechnology, 2014, 9, 233-239.	31.5	1,057
61	Development of Novel Tumorâ€Targeted Theranostic Nanoparticles Activated by Membraneâ€Type Matrix Metalloproteinases for Combined Cancer Magnetic Resonance Imaging and Therapy. Small, 2014, 10, 566-575.	10.0	127
62	Redox-Triggered Self-Assembly of Gadolinium-Based MRI Probes for Sensing Reducing Environment. Bioconjugate Chemistry, 2014, 25, 1526-1536.	3.6	47
63	Fluorogenic Probes with Substitutions at the 2 and 7 Positions of Cephalosporin are Highly BlaCâ€Specific for Rapid Mycobacterium tuberculosis Detection. Angewandte Chemie - International Edition, 2014, 53, 9360-9364.	13.8	74
64	Engineering the Stereochemistry of Cephalosporin for Specific Detection of Pathogenic Carbapenemaseâ€Expressing Bacteria. Angewandte Chemie - International Edition, 2014, 53, 8113-8116.	13.8	41
65	Comparison of Two Site-Specifically ¹⁸F-Labeled Affibodies for PET Imaging of EGFR Positive Tumors. Molecular Pharmaceutics, 2014, 11, 3947-3956.	4.6	54
66	Caspase-responsive smart gadolinium-based contrast agent for magnetic resonance imaging of drug-induced apoptosis. Chemical Science, 2014, 5, 3845-3852.	7.4	130
67	Semiconducting Polymer Nanoprobe for Inâ€…Vivo Imaging of Reactive Oxygen and Nitrogen Species. Angewandte Chemie - International Edition, 2013, 52, 10325-10329.	13.8	207
68	Activatable Oligomerizable Imaging Agents for Photoacoustic Imaging of Furin-Like Activity in Living Subjects. Journal of the American Chemical Society, 2013, 135, 11015-11022.	13.7	196
69	Nanoparticles for cancer imaging: The good, the bad, and the promise. Nano Today, 2013, 8, 454-460.	11.9	140
70	Synthesis of ligand-functionalized water-soluble [18F]YF3 nanoparticles for PET imaging. Nanoscale, 2013, 5, 3253.	5.6	26
71	Iron Administration before Stem Cell Harvest Enables MR Imaging Tracking after Transplantation. Radiology, 2013, 269, 186-197.	7.3	62
72	Positron Emission Tomography Imaging of Drugâ€Induced Tumor Apoptosis with a Caspaseâ€Triggered Nanoaggregation Probe. Angewandte Chemie - International Edition, 2013, 52, 10511-10514.	13.8	96

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73	Semiconducting Polymer Nanoprobe for Inâ€…Vivo Imaging of Reactive Oxygen and Nitrogen Species. Angewandte Chemie, 2013, 125, 10515-10519.	2.0	24
74	Innentitelbild: Positron Emission Tomography Imaging of Drug-Induced Tumor Apoptosis with a Caspase-Triggered Nanoaggregation Probe (Angew. Chem. 40/2013). Angewandte Chemie, 2013, 125, 10584-10584.	2.0	0
75	Self-luminescing BRET-FRET near-infrared dots for in vivo lymph-node mapping and tumour imaging. Nature Communications, 2012, 3, 1193.	12.8	229
76	Efficient Method for Site-Specific ¹⁸F-Labeling of Biomolecules Using the Rapid Condensation Reaction between 2-Cyanobenzothiazole and Cysteine. Bioconjugate Chemistry, 2012, 23, 1902-1908.	3.6	63
77	Rapid point-of-care detection of the tuberculosis pathogen using a BlaC-specific fluorogenic probe. Nature Chemistry, 2012, 4, 802-809.	13.6	154
78	A Selenium Analogue of Firefly <scp>D</scp>â€Luciferin with Redâ€Shifted Bioluminescence Emission. Angewandte Chemie - International Edition, 2012, 51, 3350-3353.	13.8	104
79	Strategies for in vivo imaging of enzyme activity: an overview and recent advances. Chemical Society Reviews, 2011, 40, 4186.	38.1	259
80	Real-Time Imaging of Rab5 Activity Using a Prequenched Biosensor. ACS Chemical Biology, 2011, 6, 692-699.	3.4	7
81	MRI of Tumor-Associated Macrophages with Clinically Applicable Iron Oxide Nanoparticles. Clinical Cancer Research, 2011, 17, 5695-5704.	7.0	262
82	Immobilizing Reporters for Molecular Imaging of the Extracellular Microenvironment in Living Animals. ACS Chemical Biology, 2011, 6, 1117-1126.	3.4	17
83	Controlling Intracellular Macrocyclization for the Imaging of Protease Activity. Angewandte Chemie - International Edition, 2011, 50, 2275-2279.	13.8	116
84	Controlled Selfâ€Assembling of Gadolinium Nanoparticles as Smart Molecular Magnetic Resonance Imaging Contrast Agents. Angewandte Chemie - International Edition, 2011, 50, 6283-6286.	13.8	145
85	Facile Synthesis, Silanization, and Biodistribution of Biocompatible Quantum Dots. Small, 2010, 6, 1520-1528.	10.0	39
86	A biocompatible condensation reaction for controlled assembly of nanostructures in living cells. Nature Chemistry, 2010, 2, 54-60.	13.6	402
87	Imaging tuberculosis with endogenous Î²-lactamase reporter enzyme fluorescence in live mice. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12239-12244.	7.1	168
88	Combining SELEX Screening and Rational Design to Develop Light-Up Fluorophoreâ€'RNA Aptamer Pairs for RNA Tagging. ACS Chemical Biology, 2010, 5, 1065-1074.	3.4	41
89	Superresolution Imaging of Targeted Proteins in Fixed and Living Cells Using Photoactivatable Organic Fluorophores. Journal of the American Chemical Society, 2010, 132, 15099-15101.	13.7	164
90	Near-Infrared Light Emitting Luciferase via Biomineralization. Journal of the American Chemical Society, 2010, 132, 6884-6885.	13.7	94

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91	CNOB/ChrR6, a new prodrug enzyme cancer chemotherapy. Molecular Cancer Therapeutics, 2009, 8, 333-341.	4.1	38
92	A Biocompatible Condensation Reaction for the Labeling of Terminal Cysteine Residues on Proteins. Angewandte Chemie - International Edition, 2009, 48, 9658-9662.	13.8	217
93	Particle Size, Surface Coating, and PEGylation Influence the Biodistribution of Quantum Dots in Living Mice. Small, 2009, 5, 126-134.	10.0	418
94	Biosensing and imaging based on bioluminescence resonance energy transfer. Current Opinion in Biotechnology, 2009, 20, 37-44.	6.6	130
95	Semiconductor Quantum Dots for Biosensing andIn VivoImaging. IEEE Transactions on Nanobioscience, 2009, 8, 4-12.	3.3	45
96	In Vivo Bioluminescence Imaging of Furin Activity in Breast Cancer Cells Using Bioluminogenic Substrates. Bioconjugate Chemistry, 2009, 20, 1660-1666.	3.6	88
97	Imaging Target mRNA and siRNAâ€Mediated Gene Silencing In Vivo with Ribozymeâ€Based Reporters. ChemBioChem, 2008, 9, 2682-2691.	2.6	20
98	Shedding Light on Tumors Using Nanoparticles. ACS Nano, 2008, 2, 1984-1986.	14.6	85
99	Improved QD-BRET conjugates for detection and imaging. Biochemical and Biophysical Research Communications, 2008, 372, 388-394.	2.1	61
100	HaloTag protein-mediated specific labeling of living cells with quantum dots. Biochemical and Biophysical Research Communications, 2008, 374, 419-423.	2.1	69
101	Multiplex Detection of Protease Activity with Quantum Dot Nanosensors Prepared by Intein-Mediated Specific Bioconjugation. Analytical Chemistry, 2008, 80, 8649-8655.	6.5	163
102	Recent Developments of Biological Reporter Technology for Detecting Gene Expression. Biotechnology and Genetic Engineering Reviews, 2008, 25, 41-76.	6.2	85
103	Quantum dot bioconjugates for in vitro diagnostics & in vivo imaging. Cancer Biomarkers, 2008, 4, 307-319.	1.7	186
104	Novel Beta-Lactam Antibiotics Derivatives: Their New Applications as Gene Reporters, Antitumor Prodrugs and Enzyme Inhibitors. Mini-Reviews in Medicinal Chemistry, 2008, 8, 455-471.	2.4	56
105	microPET-Based Biodistribution of Quantum Dots in Living Mice. Journal of Nuclear Medicine, 2007, 48, 1511-1518.	5.0	182
106	Visualizing RNA splicing in vivo. Molecular BioSystems, 2007, 3, 301.	2.9	5
107	Chemical Labeling of Protein in Living Cells. ChemBioChem, 2007, 8, 1099-1101.	2.6	20
108	A Bioluminogenic Substrate for Inâ€...Vivo Imaging of Î²â€Lactamase Activity. Angewandte Chemie - International Edition, 2007, 46, 7031-7034.	13.8	117

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109	Fluorescence imaging in vivo: recent advances. Current Opinion in Biotechnology, 2007, 18, 17-25.	6.6	693
110	Protease-Modulated Cellular Uptake of Quantum Dots. Nano Letters, 2006, 6, 1988-1992.	9.1	104
111	Modulating the splicing activity ofTetrahymenaribozyme via RNA self-assembly. FEBS Letters, 2006, 580, 1592-1596.	2.8	0
112	A self-assembled quantum dot probe for detecting Î²-lactamase activity. Biochemical and Biophysical Research Communications, 2006, 344, 931-935.	2.1	89
113	Self-illuminating quantum dot conjugates for in vivo imaging. Nature Biotechnology, 2006, 24, 339-343.	17.5	757
114	Creating self-illuminating quantum dot conjugates. Nature Protocols, 2006, 1, 1160-1164.	12.0	94
115	Detection of mRNA in Mammalian Cells with a Split Ribozyme Reporter. ChemBioChem, 2006, 7, 925-928.	2.6	19
116	HaloTag Protein-Mediated Site-Specific Conjugation of Bioluminescent Proteins to Quantum Dots. Angewandte Chemie - International Edition, 2006, 45, 4936-4940.	13.8	153
117	How molecular imaging is speeding up antiangiogenic drug development. Molecular Cancer Therapeutics, 2006, 5, 2624-2633.	4.1	192
118	Cell-Permeable Near-Infrared Fluorogenic Substrates for Imaging Î²-Lactamase Activity. Journal of the American Chemical Society, 2005, 127, 4158-4159.	13.7	137
119	Single-Cell Detection of Trans-Splicing Ribozyme In Vivo Activity. Journal of the American Chemical Society, 2004, 126, 7158-7159.	13.7	25
120	Novel Fluorogenic Substrates for Imaging Î²-Lactamase Gene Expression. Journal of the American Chemical Society, 2003, 125, 11146-11147.	13.7	187
121	Imaging Tetrahymena ribozyme splicing activity in single live mammalian cells. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14892-14896.	7.1	38
122	Design, Synthesis, and Characterization of a High-Affinity Trivalent System Derived from Vancomycin andl-Lys-d-Ala-d-Ala. Journal of the American Chemical Society, 2000, 122, 2698-2710.	13.7	109
123	Binding of a dimeric derivative of vancomycin to l-Lys-d-Ala- d-lactate in solution and at a surface. Chemistry and Biology, 1999, 6, 353-359.	6.0	51
124	Using Surface Plasmon Resonance to Study the Binding of Vancomycin and Its Dimer to Self-Assembled Monolayers Presentingd-Ala-d-Ala. Journal of the American Chemical Society, 1999, 121, 2629-2630.	13.7	107
125	Affinity capillary electrophoresis: A physical-organic tool for studying interactions in biomolecular recognition. Electrophoresis, 1998, 19, 367-382.	2.4	178
126	Tight Binding of a Dimeric Derivative of Vancomycin with Dimericl-Lys-d-Ala-d-Ala. Journal of the American Chemical Society, 1997, 119, 10286-10290.	13.7	91

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127	Using Capillary Electrophoresis To Study the Electrostatic Interactions Involved in the Association ofd-Ala-d-Ala with Vancomycin. Journal of the American Chemical Society, 1997, 119, 9336-9340.	13.7	50