Zhigao Yi

List of Publications by Year in descending order

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55 papers	4,710 citations	159585 30 h-index	155660 55 g-index
55 all docs	55 docs citations	55 times ranked	5319 citing authors

#	Article	IF	Citations
1	All-inorganic perovskite nanocrystal scintillators. Nature, 2018, 561, 88-93.	27.8	1,274
2	High-resolution X-ray luminescence extension imaging. Nature, 2021, 590, 410-415.	27.8	378
3	Binary temporal upconversion codes of Mn2+-activated nanoparticles for multilevel anti-counterfeiting. Nature Communications, 2017, 8, 899.	12.8	290
4	Calcium-Overload-Mediated Tumor Therapy by Calcium Peroxide Nanoparticles. CheM, 2019, 5, 2171-2182.	11.7	288
5	Confining Excitation Energy in Er³⁺â€Sensitized Upconversion Nanocrystals through Tm³⁺â€Mediated Transient Energy Trapping. Angewandte Chemie - International Edition, 2017, 56, 7605-7609.	13.8	259
6	Simultaneous Realization of Phase/Size Manipulation, Upconversion Luminescence Enhancement, and Blood Vessel Imaging in Multifunctional Nanoprobes Through Transition Metal Mn²⁺ Doping. Advanced Functional Materials, 2014, 24, 4051-4059.	14.9	213
7	Lanthanide-doped inorganic nanoparticles turn molecular triplet excitons bright. Nature, 2020, 587, 594-599.	27.8	135
8	Dual-modal upconversion fluorescent/X-ray imaging using ligand-free hexagonal phase NaLuF4:Gd/Yb/Er nanorods for blood vessel visualization. Biomaterials, 2014, 35, 2934-2941.	11.4	128
9	Lanthanide-Activated Nanoparticles: A Toolbox for Bioimaging, Therapeutics, and Neuromodulation. Accounts of Chemical Research, 2020, 53, 2692-2704.	15.6	123
10	Expanding the Toolbox of Upconversion Nanoparticles for In Vivo Optogenetics and Neuromodulation. Advanced Materials, 2019, 31, e1803474.	21.0	118
11	Remarkable NIR Enhancement of Multifunctional Nanoprobes for In Vivo Trimodal Bioimaging and Upconversion Optical/T₂â€Weighted MRIâ€Guided Small Tumor Diagnosis. Advanced Functional Materials, 2015, 25, 7119-7129.	14.9	115
12	AIEgen-coupled upconversion nanoparticles eradicate solid tumors through dual-mode ROS activation. Science Advances, 2020, 6, eabb2712.	10.3	100
13	Synergistic Dual-Modality in Vivo Upconversion Luminescence/X-ray Imaging and Tracking of Amine-Functionalized NaYbF₄:Er Nanoprobes. ACS Applied Materials & Interfaces, 2014, 6, 3839-3846.	8.0	79
14	In Vivo Tumor Visualization through MRI Offâ€On Switching of NaGdF₄â€“CaCO₃ Nanoconjugates. Advanced Materials, 2019, 31, e1901851.	21.0	79
15	Simultaneous synthesis and amine-functionalization of single-phase BaYF5:Yb/Er nanoprobe for dual-modal in vivo upconversion fluorescence and long-lasting X-ray computed tomography imaging. Nanoscale, 2013, 5, 6023.	5.6	76
16	Confining Excitation Energy in Er³⁺â€Sensitized Upconversion Nanocrystals through Tm³⁺â€Mediated Transient Energy Trapping. Angewandte Chemie, 2017, 129, 7713-7717.	2.0	56
17	PEGylated NaLuF4: Yb/Er upconversion nanophosphors for inÂvivo synergistic fluorescence/X-ray bioimaging and long-lasting, real-time tracking. Biomaterials, 2014, 35, 9689-9697.	11.4	55
18	Visualization of Intraâ€neuronal Motor Protein Transport through Upconversion Microscopy. Angewandte Chemie - International Edition, 2019, 58, 9262-9268.	13.8	52

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19	Continuous-wave near-infrared stimulated-emission depletion microscopy using downshifting lanthanide nanoparticles. Nature Nanotechnology, 2021, 16, 975-980.	31.5	50
20	Enhanced upconversion luminescence and single-band red emission of NaErF4 nanocrystals via Mn2+ doping. Journal of Alloys and Compounds, 2015, 618, 776-780.	5.5	49
21	Multi-functional NaErF₄:Yb nanorods: enhanced red upconversion emission, in vitro cell, in vivo X-ray, and T₂-weighted magnetic resonance imaging. Nanoscale, 2014, 6, 2855-2860.	5.6	47
22	Highâ€Specificity In Vivo Tumor Imaging Using Bioorthogonal NIRâ€IIb Nanoparticles. Advanced Materials, 2021, 33, e2102950.	21.0	46
23	Upconversion optical/magnetic resonance imaging-guided small tumor detection and inÂvivo tri-modal bioimaging based on high-performance luminescent nanorods. Biomaterials, 2017, 115, 90-103.	11.4	45
24	Dopant-dependent crystallization and photothermal effect of Sb-doped SnO₂nanoparticles as stable theranostic nanoagents for tumor ablation. Nanoscale, 2018, 10, 2542-2554.	5.6	43
25	Urchin-like Ce/Tb co-doped GdPO₄ hollow spheres for in vivo luminescence/X-ray bioimaging and drug delivery. Biomaterials Science, 2014, 2, 1404-1411.	5.4	39
26	Photon upconversion through triplet exciton-mediated energy relay. Nature Communications, 2021, 12, 3704.	12.8	38
27	High quality multi-functional NaErF4 nanocrystals: structure-controlled synthesis, phase-induced multi-color emissions and tunable magnetic properties. Journal of Materials Chemistry C, 2013, 1, 5520.	5.5	37
28	Nanotunnels within Poly(3,4-ethylenedioxythiophene)-Carbon Nanotube Composite for Highly Sensitive Neural Interfacing. ACS Nano, 2020, 14, 8059-8073.	14.6	37
29	High quality polyacrylic acid modified multifunction luminescent nanorods for tri-modality bioimaging, in vivo long-lasting tracking and biodistribution. Nanoscale, 2015, 7, 542-550.	5.6	36
30	Visualization of Intraâ€neuronal Motor Protein Transport through Upconversion Microscopy. Angewandte Chemie, 2019, 131, 9363-9369.	2.0	34
31	Multimodal Tuning of Synaptic Plasticity Using Persistent Luminescent Memitters. Advanced Materials, 2022, 34, e2101895.	21.0	31
32	Tunable multicolor and white luminescence in Tb3+/Dy3+/Mn2+ doped CePO4 via energy transfer. Journal of Alloys and Compounds, 2015, 637, 489-496.	5.5	30
33	Multifunctional BaYbF 5 : Gd/Er upconversion nanoparticles for in vivo tri-modal upconversion optical, X-ray computed tomography and magnetic resonance imaging. Materials Science and Engineering C, 2017, 75, 510-516.	7.3	29
34	Suppression of Defect-Induced Quenching via Chemical Potential Tuning: A Theoretical Solution for Enhancing Lanthanide Luminescence. Journal of Physical Chemistry C, 2019, 123, 11151-11161.	3.1	26
35	Combating the Coronavirus Pandemic: Early Detection, Medical Treatment, and a Concerted Effort by the Global Community. Research, 2020, 2020, 6925296.	5.7	26
36	Hybrid lanthanide nanoparticles as a new class of binary contrast agents for in vivo T₁/T₂ dual-weighted MRI and synergistic tumor diagnosis. Journal of Materials Chemistry B, 2016, 4, 2715-2722.	5.8	25

#	ARTICLE	IF	CITATIONS
37	Tuning Longâ€Lived Mn(II) Upconversion Luminescence through Alkalineâ€Earth Metal Doping and Energyâ€Level Tailoring. Advanced Optical Materials, 2019, 7, 1900519.	7.3	24
38	Sub-10 nm BaLaF5:Mn/Yb/Er nanoprobes for dual-modal synergistic in vivo upconversion luminescence and X-ray bioimaging. Journal of Materials Chemistry B, 2014, 2, 6527-6533.	5.8	23
39	One-pot synthesis of PEG modified BaLuF₅:Gd/Yb/Er nanoprobes for dual-modal in vivo upconversion luminescence and X-ray bioimaging. Dalton Transactions, 2014, 43, 13343-13348.	3.3	20
40	Tunable multicolor upconversion luminescence and paramagnetic property of the lanthanide doped fluorescent/magnetic bi-function NaYbF4 microtubes. Journal of Alloys and Compounds, 2014, 589, 502-506.	5.5	20
41	Selfâ€Adjuvanted Molecular Activator (SeaMac) Nanovaccines Promote Cancer Immunotherapy. Advanced Healthcare Materials, 2021, 10, e2002080.	7.6	20
42	Monodispersed LaF₃ nanocrystals: shape-controllable synthesis, excitation-power-dependent multi-color tuning and intense near-infrared upconversion emission. Nanotechnology, 2014, 25, 065703.	2.6	13
43	Controllable multicolor output, white luminescence and cathodoluminescence properties of high quality NaCeF4:Ln3+ (Ln3+ = Eu3+, Dy3+, Tb3+) nanorods. RSC Advances, 2014, 4, 49916-49923.	3.6	13
44	Decoding a Percolation Phase Transition of Water at â^¼330 K with a Nanoparticle Ruler. Journal of Physical Chemistry Letters, 2020, 11, 6704-6711.	4.6	13
45	Mapping Drug-Induced Neuropathy through In-Situ Motor Protein Tracking and Machine Learning. Journal of the American Chemical Society, 2021, 143, 14907-14915.	13.7	11
46	Noninvasive Manipulation of Ion Channels for Neuromodulation and Theranostics. Accounts of Materials Research, 2022, 3, 247-258.	11.7	11
47	Upconversion: Simultaneous Realization of Phase/Size Manipulation, Upconversion Luminescence Enhancement, and Blood Vessel Imaging in Multifunctional Nanoprobes Through Transition Metal Mn²⁺ Doping (Adv. Funct. Mater. 26/2014). Advanced Functional Materials, 2014, 24, 4196-4196.	14.9	9
48	Multicolor tuning towards single red-emission band of upconversion nanoparticles for tunable optical component and optical/x-ray imaging agents via Ce³⁺ doping. Nanotechnology, 2015, 26, 385702.	2.6	9
49	Sub-10nm lanthanide doped BaLuF5 nanocrystals: Shape controllable synthesis, tunable multicolor emission and enhanced near-infrared upconversion luminescence. Materials Research Bulletin, 2015, 64, 27-32.	5.2	8
50	Driving Neurogenesis in Neural Stem Cells with High Sensitivity Optogenetics. NeuroMolecular Medicine, 2020, 22, 139-149.	3.4	7
51	Hydrothermal Synthesis and Tunable Multicolor Upconversion Emission of Cubic Phase Y₂O₃Nanoparticles. Advances in Condensed Matter Physics, 2013, 2013, 1-6.	1.1	6
52	Intense Red Upconversion Emission and Shape Controlled Synthesis of Gd2O3:Yb/Er Nanocrystals. Advances in Condensed Matter Physics, 2013, 2013, 1-5.	1.1	6
53	Tumor Detection: Remarkable NIR Enhancement of Multifunctional Nanoprobes for In Vivo Trimodal Bioimaging and Upconversion Optical/T2-Weighted MRI-Guided Small Tumor Diagnosis (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT /Over	18.5	6
54	Upconversion Nanoparticle-Mediated Optogenetics. Advances in Experimental Medicine and Biology, 2021, 1293, 641-657.	1.6	5

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55	Synthesis, Tunable Multicolor Output, and High Pure Red Upconversion Emission of Lanthanide-Doped Lu₂O₃Nanosheets. Advances in Condensed Matter Physics, 2013, 2013, 1-6.	1.1	1