

# Datao Tu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8613425/publications.pdf>

Version: 2024-02-01

92  
papers

8,136  
citations

44069

48  
h-index

46799

89  
g-index

99  
all docs

99  
docs citations

99  
times ranked

6933  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lanthanide-doped luminescent nanoprobe: controlled synthesis, optical spectroscopy, and bioapplications. <i>Chemical Society Reviews</i> , 2013, 42, 6924.	38.1	768
2	Lanthanide-doped upconversion nano-bioprobes: electronic structures, optical properties, and biodetection. <i>Chemical Society Reviews</i> , 2015, 44, 1379-1415.	38.1	748
3	A Strategy to Achieve Efficient Dual-Mode Luminescence of $\text{Eu}^{3+}$ in Lanthanides Doped Multifunctional $\text{NaGdF}_4$ Nanocrystals. <i>Advanced Materials</i> , 2010, 22, 3266-3271.	21.0	566
4	Lanthanide-Doped $\text{LiLuF}_4$ Upconversion Nanoprobes for the Detection of Disease Biomarkers. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1252-1257.	13.8	397
5	Amine-Functionalized Lanthanide-Doped $\text{KGdF}_4$ Nanocrystals as Potential Optical/Magnetic Multimodal Bioprobes. <i>Journal of the American Chemical Society</i> , 2012, 134, 1323-1330.	13.7	372
6	Time-Resolved FRET Biosensor Based on Amine-Functionalized Lanthanide-Doped $\text{NaYF}_4$ Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 6306-6310.	13.8	308
7	Near-infrared-triggered photon upconversion tuning in all-inorganic cesium lead halide perovskite quantum dots. <i>Nature Communications</i> , 2018, 9, 3462.	12.8	222
8	Amine-Functionalized Lanthanide-Doped Zirconia Nanoparticles: Optical Spectroscopy, Time-Resolved Fluorescence Resonance Energy Transfer Biodetection, and Targeted Imaging. <i>Journal of the American Chemical Society</i> , 2012, 134, 15083-15090.	13.7	221
9	Breakdown of Crystallographic Site Symmetry in Lanthanide-Doped $\text{NaYF}_4$ Crystals. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1128-1133.	13.8	220
10	Sub-10-nm Lanthanide-Doped $\text{CaF}_2$ Nanoprobes for Time-Resolved Luminescent Biodetection. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6671-6676.	13.8	185
11	Lanthanide-doped luminescent nano-bioprobes: from fundamentals to biodetection. <i>Nanoscale</i> , 2013, 5, 1369-1384.	5.6	165
12	Multifunctional Nano-Bioprobes Based on Rattle-Structured Upconverting Luminescent Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7915-7919.	13.8	145
13	Intense near-infrared-II luminescence from $\text{NaCeF}_4$ :Er/Yb nanoprobe for <i>in vitro</i> bioassay and <i>in vivo</i> bioimaging. <i>Chemical Science</i> , 2018, 9, 4682-4688.	7.4	145
14	Lanthanide-doped upconversion nanoparticles electrostatically coupled with photosensitizers for near-infrared-triggered photodynamic therapy. <i>Nanoscale</i> , 2014, 6, 8274.	5.6	133
15	Colloidal Alloyed Quantum Dots with Enhanced Photoluminescence Quantum Yield in the NIR-II Window. <i>Journal of the American Chemical Society</i> , 2021, 143, 2601-2607.	13.7	118
16	Unraveling the Electronic Structures of Neodymium in $\text{LiLuF}_4$ Nanocrystals for Radiometric Temperature Sensing. <i>Advanced Science</i> , 2019, 6, 1802282.	11.2	111
17	Lanthanide-Doped Multicolor $\text{GdF}_3$ Nanocrystals for Time-Resolved Photoluminescent Biodetection. <i>Chemistry - A European Journal</i> , 2011, 17, 8549-8554.	3.3	106
18	Full-Spectrum Persistent Luminescence Tuning Using All-Inorganic Perovskite Quantum Dots. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6943-6947.	13.8	106

#	ARTICLE	IF	CITATIONS
19	Lanthanide-doped luminescent nano-bioprobes for the detection of tumor markers. <i>Nanoscale</i> , 2015, 7, 4274-4290.	5.6	101
20	Thermally boosted upconversion and downshifting luminescence in $\text{Sc}_2(\text{MoO}_4)_3:\text{Yb}/\text{Er}$ with two-dimensional negative thermal expansion. <i>Nature Communications</i> , 2022, 13, 2090.	12.8	99
21	A New Cubic Phase for a $\text{NaYF}_4$ Host Matrix Offering High Upconversion Luminescence Efficiency. <i>Advanced Materials</i> , 2015, 27, 5528-5533.	21.0	94
22	Single-composition white-emitting $\text{NaSrBO}_3:\text{Ce}^{3+}, \text{Sm}^{3+}, \text{Tb}^{3+}$ phosphors for NUV light-emitting diodes. <i>Journal of Materials Chemistry C</i> , 2015, 3, 7286-7293.	5.5	93
23	Graphene $\text{\AA}$ Oxide $\text{\AA}$ Modified Lanthanide Nanoprobes for Tumor $\text{\AA}$ Targeted Visible/NIR $\text{\AA}$ Luminescence Imaging. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 18981-18986.	13.8	92
24	Luminescent biodetection based on lanthanide-doped inorganic nanoprobes. <i>Coordination Chemistry Reviews</i> , 2014, 273-274, 13-29.	18.8	91
25	Time-resolved luminescent biosensing based on inorganic lanthanide-doped nanoprobes. <i>Chemical Communications</i> , 2015, 51, 4129-4143.	4.1	85
26	Large-scale synthesis of uniform lanthanide-doped $\text{NaREF}_4$ upconversion/downshifting nanoprobes for bioapplications. <i>Nanoscale</i> , 2018, 10, 11477-11484.	5.6	84
27	Controlled synthesis and optical spectroscopy of lanthanide-doped $\text{KLaF}_4$ nanocrystals. <i>Nanoscale</i> , 2012, 4, 4485.	5.6	78
28	Lanthanide-doped $\text{NaScF}_4$ nanoprobes: crystal structure, optical spectroscopy and biodetection. <i>Nanoscale</i> , 2013, 5, 6430.	5.6	74
29	Visible-to-infrared quantum cutting by phonon-assisted energy transfer in $\text{YPO}_4:\text{Tm}^{3+}, \text{Yb}^{3+}$ phosphors. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 6974.	2.8	73
30	Sub-5 nm lanthanide-doped lutetium oxyfluoride nanoprobes for ultrasensitive detection of prostate specific antigen. <i>Chemical Science</i> , 2016, 7, 2572-2578.	7.4	71
31	Lanthanide-doped near-infrared II luminescent nanoprobes for bioapplications. <i>Science China Materials</i> , 2019, 62, 1071-1086.	6.3	70
32	Near-Infrared Light-Mediated Photodynamic Therapy Nanoplatfrom by the Electrostatic Assembly of Upconversion Nanoparticles with Graphitic Carbon Nitride Quantum Dots. <i>Inorganic Chemistry</i> , 2016, 55, 10267-10277.	4.0	69
33	A strategy for accurate detection of glucose in human serum and whole blood based on an upconversion nanoparticles-polydopamine nanosystem. <i>Nano Research</i> , 2018, 11, 3164-3174.	10.4	68
34	$\text{\AA}$ Chameleon-like $\text{\AA}$ optical behavior of lanthanide-doped fluoride nanoplates for multilevel anti-counterfeiting applications. <i>Nano Research</i> , 2019, 12, 1417-1422.	10.4	67
35	Plasmon-induced hyperthermia: hybrid upconversion $\text{NaYF}_4:\text{Yb}/\text{Er}$ and gold nanomaterials for oral cancer photothermal therapy. <i>Journal of Materials Chemistry B</i> , 2015, 3, 8293-8302.	5.8	65
36	Luminescent lanthanide metal $\text{\AA}$ organic framework nanoprobes: from fundamentals to bioapplications. <i>Nanoscale</i> , 2020, 12, 15021-15035.	5.6	65

#	ARTICLE	IF	CITATIONS
37	Cooperative and non-cooperative sensitization upconversion in lanthanide-doped $\text{LiYbF}_4$ nanoparticles. <i>Nanoscale</i> , 2017, 9, 6521-6528.	5.6	64
38	Europium-activated luminescent nanoprobe: From fundamentals to bioapplications. <i>Coordination Chemistry Reviews</i> , 2019, 378, 104-120.	18.8	64
39	Boosting the Self-Trapped Exciton Emission in Alloyed $\text{Cs}_2(\text{Ag/Na})\text{InCl}_6$ Double Perovskite via $\text{Cu}^{+}$ Doping. <i>Advanced Science</i> , 2022, 9, e2103724.	11.2	64
40	Lanthanide-doped disordered crystals: Site symmetry and optical properties. <i>Journal of Luminescence</i> , 2018, 201, 255-264.	3.1	63
41	Ultrasensitive detection of cancer biomarker microRNA by amplification of fluorescence of lanthanide nanoprobe. <i>Nano Research</i> , 2018, 11, 264-273.	10.4	62
42	Broadband excitable NIR-II luminescent nano-bioprobes based on $\text{CuInSe}_2$ quantum dots for the detection of circulating tumor cells. <i>Nano Today</i> , 2020, 35, 100943.	11.9	57
43	Tailoring the Broadband Emission in All-Inorganic Lead-Free OD $\text{In}$ -Based Halides through $\text{Sb}^{3+}$ Doping. <i>Advanced Optical Materials</i> , 2021, 9, 2100434.	7.3	56
44	Boosting Near-Infrared Luminescence of Lanthanide in $\text{Cs}_2\text{AgBiCl}_6$ Double Perovskites via Breakdown of the Local Site Symmetry. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	53
45	Lanthanide-Doped Luminescent Nanomaterials. <i>Nanomedicine and Nanotoxicology</i> , 2014, , .	0.2	52
46	Photon upconversion in $\text{Yb}^{3+}$ - $\text{Tb}^{3+}$ and $\text{Yb}^{3+}$ - $\text{Eu}^{3+}$ activated core/shell nanoparticles with dual-band excitation. <i>Journal of Materials Chemistry C</i> , 2016, 4, 4186-4192.	5.5	52
47	Inorganic lanthanide nanoprobe for background-free luminescent bioassays. <i>Science China Materials</i> , 2015, 58, 156-177.	6.3	50
48	Near-Infrared-to-Near-Infrared Downshifting and Near-Infrared-to-Visible Upconverting Luminescence of $\text{Er}^{3+}$ -Doped $\text{In}_2\text{O}_3$ Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2013, 117, 10834-10841.	3.1	48
49	Dissolution-Enhanced Luminescent Bioassay Based on Inorganic Lanthanide Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 12498-12502.	13.8	48
50	Recent advances in design of lanthanide-containing NIR-II luminescent nanoprobe. <i>IScience</i> , 2021, 24, 102062.	4.1	48
51	Lanthanide Metal-Organic Framework Nanoprobe for the In Vitro Detection of Cardiac Disease Markers. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 43989-43995.	8.0	46
52	Optical/Magnetic Multimodal Bioprobes Based on Lanthanide-Doped Inorganic Nanocrystals. <i>Chemistry - A European Journal</i> , 2013, 19, 5516-5527.	3.3	45
53	A facile "ship-in-a-bottle" approach to construct nanorattles based on upconverting lanthanide-doped fluorides. <i>Nano Research</i> , 2016, 9, 187-197.	10.4	37
54	Lanthanide-doped $\text{Sr}_2\text{YF}_7$ nanoparticles: controlled synthesis, optical spectroscopy and biodetection. <i>Nanoscale</i> , 2014, 6, 11098-11105.	5.6	35

#	ARTICLE	IF	CITATIONS
55	Enhancing Antitumor Efficacy by Simultaneous ATP-Responsive Chemodrug Release and Cancer Cell Sensitization Based on a Smart Nanoagent. <i>Advanced Science</i> , 2018, 5, 1801201.	11.2	35
56	Engineering the Bandgap and Surface Structure of CsPbCl <sub>3</sub> Nanocrystals to Achieve Efficient Ultraviolet Luminescence. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9693-9698.	13.8	32
57	<i>In situ</i> confined growth of ultras-small perovskite quantum dots in metal-organic frameworks and their quantum confinement effect. <i>Nanoscale</i> , 2020, 12, 17113-17120.	5.6	28
58	Lanthanide-Doped Inorganic Nanocrystals as Luminescent Biolabels. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2012, 15, 580-594.	1.1	25
59	Luminescent nano-bioprobes based on NIR dye/lanthanide nanoparticle composites. <i>Aggregate</i> , 2021, 2, e59.	9.9	24
60	Multiplexed intracellular detection based on dual-excitation/dual-emission upconversion nanoprob- es. <i>Nano Research</i> , 2020, 13, 1955-1961.	10.4	24
61	Enhancing Dye-Triplet-Sensitized Upconversion Emission Through the Heavy-Atom Effect in CsLu <sub>2</sub> F <sub>7</sub> :Yb/Er Nanoprob- es. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	24
62	Interfacial Defects Dictated In Situ Fabrication of Yolk-Shell Upconversion Nanoparticles by Electron-Beam Irradiation. <i>Advanced Science</i> , 2018, 5, 1800766.	11.2	23
63	Energy transfer designing in lanthanide-doped upconversion nanoparticles. <i>Chemical Communications</i> , 2020, 56, 15118-15132.	4.1	23
64	A Dual-Excitation Decoding Strategy Based on NIR Hybrid Nanocomposites for High-Accuracy Thermal Sensing. <i>Advanced Science</i> , 2020, 7, 2001589.	11.2	23
65	Revisiting the Luminescence Decay Kinetics of Energy Transfer Upconversion. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3672-3680.	4.6	23
66	Unusual Temperature Dependence of Bandgap in 2D Inorganic Lead-Halide Perovskite Nanoplatelets. <i>Advanced Science</i> , 2021, 8, e2100084.	11.2	23
67	Ultrasensitive Point-of-Care Test for Tumor Marker in Human Saliva Based on Luminescence-Amplification Strategy of Lanthanide Nanoprob- es. <i>Advanced Science</i> , 2021, 8, 2002657.	11.2	20
68	Lanthanide-doped LaOBr nanocrystals: controlled synthesis, optical spectroscopy and bioimaging. <i>Journal of Materials Chemistry B</i> , 2017, 5, 4827-4834.	5.8	19
69	Highly efficient luminescent III-VI semiconductor nanoprob- es based on template-synthesized CuInS <sub>2</sub> nanocrystals. <i>Nano Research</i> , 2019, 12, 1804-1809.	10.4	19
70	Accurate detection of $\beta$ -hCG in women's serum and cervical secretions for predicting early pregnancy viability based on time-resolved luminescent lanthanide nanoprob- es. <i>Nanoscale</i> , 2020, 12, 6729-6735.	5.6	17
71	Polarized upconversion luminescence from a single LiLuF <sub>4</sub> :Yb <sup>3+</sup> /Er <sup>3+</sup> microcrystal for orientation tracking. <i>Science China Materials</i> , 2022, 65, 220-228.	6.3	16
72	Multifunctional Nano-bioprobes Based on Rattle-Structured Upconverting Luminescent Nanoparticles. <i>Angewandte Chemie</i> , 2015, 127, 8026-8030.	2.0	14

#	ARTICLE	IF	CITATIONS
73	Tumor-Microenvironment-Responsive Biodegradable Nanoagents Based on Lanthanide Nucleotide Self-Assemblies toward Precise Cancer Therapy. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	14
74	Full-Spectrum Persistent Luminescence Tuning Using All-Inorganic Perovskite Quantum Dots. <i>Angewandte Chemie</i> , 2019, 131, 7017-7021.	2.0	13
75	Graphene-Oxide-Modified Lanthanide Nanoprobes for Tumor-Targeted Visible/NIR Luminescence Imaging. <i>Angewandte Chemie</i> , 2019, 131, 19157-19162.	2.0	12
76	One-Step Transformation from Rofecoxib to a COX-2 NIR Probe for Human Cancer Tissue/Organoid Targeted Bioimaging. <i>ACS Applied Bio Materials</i> , 2021, 4, 2723-2731.	4.6	11
77	Enhancing multiphoton upconversion emissions through confined energy migration in lanthanide-doped Cs <sub>2</sub> NaYF <sub>6</sub> nanoplatelets. <i>Nanoscale</i> , 2021, 13, 9766-9772.	5.6	10
78	Highly efficient NIR-II luminescent III-VI semiconductor nanoprobes based on AgInTe <sub>2</sub> :Zn/ZnS nanocrystals. <i>Chemical Communications</i> , 2022, 58, 2204-2207.	4.1	10
79	Enhanced reddish-orange emission in NaBa <sub>4</sub> (BO <sub>3</sub> ) <sub>3</sub> : Sm <sup>3+</sup> /Ce <sup>3+</sup> phosphors for near-ultraviolet and blue LEDs. <i>Journal of Materials Science</i> , 2017, 52, 9764-9772.	3.7	9
80	The effect of surface-capping oleic acid on the optical properties of lanthanide-doped nanocrystals. <i>Nanoscale</i> , 2021, 13, 12494-12504.	5.6	8
81	Boosting the Energy Migration Upconversion through Inter-Shell Energy Transfer in Tb <sup>3+</sup> -Doped Sandwich Structured Nanocrystals. <i>CCS Chemistry</i> , 2022, 4, 2031-2042.	7.8	8
82	Combined <i>In Situ</i> Spectroscopies Reveal the Ligand Ordering-Modulated Photoluminescence of Upconverting Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23086-23093.	3.1	6
83	Boosting Near-Infrared Luminescence of Lanthanide in Cs <sub>2</sub> AgBiCl <sub>6</sub> Double Perovskites via Breakdown of the Local Site Symmetry. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	6
84	Enhancing Dye-Triplet-Sensitized Upconversion Emission Through the Heavy-Atom Effect in CsLu <sub>2</sub> F <sub>7</sub> :Yb/Er Nanoprobes. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	4
85	Surface Modification Chemistry of Lanthanide-Doped Nanoparticles. <i>Nanomedicine and Nanotoxicology</i> , 2014, , 59-74.	0.2	2
86	Optical Spectroscopy of Lanthanide-Doped Nanoparticles. <i>Nanomedicine and Nanotoxicology</i> , 2014, , 75-123.	0.2	2
87	Reply to Comment on "Breakdown of Crystallographic Site Symmetry in Lanthanide-Doped NaYF <sub>4</sub> Crystals". <i>Angewandte Chemie - International Edition</i> , 2015, 54, 1077-1078.	13.8	2
88	Engineering the Bandgap and Surface Structure of CsPbCl <sub>3</sub> Nanocrystals to Achieve Efficient Ultraviolet Luminescence. <i>Angewandte Chemie</i> , 2021, 133, 9779-9784.	2.0	2
89	Lanthanide-doped luminescent materials: Electronic structures, optical properties, and bioapplications. <i>Scientia Sinica Chimica</i> , 2014, 44, 168-179.	0.4	2
90	Deciphering molecular interaction of binaphthyl compounds with <i>Penicillium expansum</i> lipase: enantioselectivity and reactivity prediction for lipase. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 658-667.	3.4	1

#	ARTICLE	IF	CITATIONS
91	Tumorâ€Microenvironmentâ€Responsive Biodegradable Nanoagents Based on Lanthanide Nucleotide Selfâ€Assemblies toward Precise Cancer Therapy. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	1
92	Lanthanide-Doped Upconversion Nanoprobes. , 2016, , 237-287.		0