Hongjie Dai

List of Publications by Year
in descending order

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91 papers	42,062 citations	13827 67 h-index	42291 92 g-index
97 all docs	97 docs citations	97 times ranked	39734 citing authors

#	Article	IF	Citations
1	Chemically Derived, Ultrasmooth Graphene Nanoribbon Semiconductors. Science, 2008, 319, 1229-1232.	6.0	4,504
2	Nano-graphene oxide for cellular imaging and drug delivery. Nano Research, 2008, 1, 203-212.	5.8	3,043
3	An Advanced Niâ€“Fe Layered Double Hydroxide Electrocatalyst for Water Oxidation. Journal of the American Chemical Society, 2013, 135, 8452-8455.	6.6	2,498
4	Narrow graphene nanoribbons from carbon nanotubes. Nature, 2009, 458, 877-880.	13.7	2,313
5	Near-infrared fluorophores for biomedical imaging. Nature Biomedical Engineering, 2017, 1, .	11.6	1,982
6	An ultrafast rechargeable aluminium-ion battery. Nature, 2015, 520, 324-328.	13.7	1,970
7	Recent advances in zincâ€“air batteries. Chemical Society Reviews, 2014, 43, 5257-5275.	18.7	1,882
8	In vivo biodistribution and highly efficient tumour targeting of carbon nanotubes in mice. Nature Nanotechnology, 2007, 2, 47-52.	15.6	1,384
9	Room-Temperature All-Semiconducting Sub-10-nm Graphene Nanoribbon Field-Effect Transistors. Physical Review Letters, 2008, 100, 206803.	2.9	1,345
10	A small-molecule dye for NIR-II imaging. Nature Materials, 2016, 15, 235-242.	13.3	1,314
11	A mini review of NiFe-based materials as highly active oxygen evolution reaction electrocatalysts. Nano Research, 2015, 8, 23-39.	5.8	1,201
12	Carbon Nanomaterials for Biological Imaging and Nanomedicinal Therapy. Chemical Reviews, 2015, 115, 10816-10906.	23.0	1,151
13	A route to brightly fluorescent carbon nanotubes for near-infrared imaging in mice. Nature Nanotechnology, 2009, 4, 773-780.	15.6	1,068
14	Circulation and long-term fate of functionalized, biocompatible single-walled carbon nanotubes in mice probed by Raman spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1410-1415.	3.3	1,037
15	Multifunctional in vivo vascular imaging using near-infrared II fluorescence. Nature Medicine, 2012, 18, 1841-1846.	15.2	836
16	Through-skull fluorescence imaging of the brain in a new near-infrared window. Nature Photonics, 2014, 8, 723-730.	15.6	829
17	Deep-tissue anatomical imaging of mice using carbon nanotube fluorophores in the second near-infrared window. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8943-8948.	3.3	817
18	Facile synthesis of high-quality graphene nanoribbons. Nature Nanotechnology, 2010, 5, 321-325.	15.6	757

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19	Ag₂S Quantum Dot: A Bright and Biocompatible Fluorescent Nanoprobe in the Second Near-Infrared Window. ACS Nano, 2012, 6, 3695-3702.	7.3	669
20	Nearâ€Infraredâ€ Molecular Dyes for Cancer Imaging and Surgery. Advanced Materials, 2019, 31, e1900321.	11.1	631
21	Solar-driven, highly sustained splitting of seawater into hydrogen and oxygen fuels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6624-6629.	3.3	524
22	Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window. Nature Communications, 2014, 5, 4206.	5.8	470
23	A high quantum yield molecule-protein complex fluorophore for near-infrared II imaging. Nature Communications, 2017, 8, 15269.	5.8	458
24	Etching and narrowing of graphene from the edges. Nature Chemistry, 2010, 2, 661-665.	6.6	441
25	Boosting the down-shifting luminescence of rare-earth nanocrystals for biological imaging beyond 1500â€‰nm. Nature Communications, 2017, 8, 737.	5.8	416
26	In vivo molecular imaging for immunotherapy using ultra-bright near-infrared-IIb rare-earth nanoparticles. Nature Biotechnology, 2019, 37, 1322-1331.	9.4	398
27	Donor Engineering for NIR-II Molecular Fluorophores with Enhanced Fluorescent Performance. Journal of the American Chemical Society, 2018, 140, 1715-1724.	6.6	379
28	Molecular engineering of dispersed nickel phthalocyanines on carbon nanotubes for selective CO2 reduction. Nature Energy, 2020, 5, 684-692.	19.8	365
29	Rational Design of Molecular Fluorophores for Biological Imaging in the NIRâ€ Window. Advanced Materials, 2017, 29, 1605497.	11.1	356
30	A bright organic NIR-II nanofluorophore for three-dimensional imaging into biological tissues. Nature Communications, 2018, 9, 1171.	5.8	353
31	Traumatic Brain Injury Imaging in the Second Nearâ€Infrared Window with a Molecular Fluorophore. Advanced Materials, 2016, 28, 6872-6879.	11.1	311
32	Fluorescence Imaging In Vivo at Wavelengths beyond 1500â€…nm. Angewandte Chemie - International Edition, 2015, 54, 14758-14762.	7.2	310
33	Bright quantum dots emitting at â¼1,600 nm in the NIR-IIb window for deep tissue fluorescence imaging. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6590-6595.	3.3	310
34	High Coulombic efficiency aluminum-ion battery using an AlCl ₃ -urea ionic liquid analog electrolyte. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 834-839.	3.3	306
35	Biological imaging without autofluorescence in the second near-infrared region. Nano Research, 2015, 8, 3027-3034.	5.8	263
36	Molecular imaging of biological systems with a clickable dye in the broad 800- to 1,700-nm near-infrared window. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 962-967.	3.3	230

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37	Plasmonic substrates for multiplexed protein microarrays with femtomolar sensitivity and broad dynamic range. Nature Communications, 2011, 2, 466.	5.8	221
38	Graphene nanoribbons with smooth edges behave as quantum wires. Nature Nanotechnology, 2011, 6, 563-567.	15.6	197
39	Highâ€Safety and Highâ€Energyâ€Density Lithium Metal Batteries in a Novel Ionicâ€Liquid Electrolyte. Advanced Materials, 2020, 32, e2001741.	11.1	176
40	A safe and non-flammable sodium metal battery based on an ionic liquid electrolyte. Nature Communications, 2019, 10, 3302.	5.8	173
41	Graphene Nanoribbons from Unzipped Carbon Nanotubes: Atomic Structures, Raman Spectroscopy, and Electrical Properties. Journal of the American Chemical Society, 2011, 133, 10394-10397.	6.6	170
42	Electroreduction of CO₂ to Formate on a Copper-Based Electrocatalyst at High Pressures with High Energy Conversion Efficiency. Journal of the American Chemical Society, 2020, 142, 7276-7282.	6.6	165
43	Chirality Enriched (12,1) and (11,3) Single-Walled Carbon Nanotubes for Biological Imaging. Journal of the American Chemical Society, 2012, 134, 16971-16974.	6.6	162
44	Light-sheet microscopy in the near-infrared II window. Nature Methods, 2019, 16, 545-552.	9.0	151
45	3D NIRâ€II Molecular Imaging Distinguishes Targeted Organs with Highâ€Performance NIRâ€II Bioconjugates. Advanced Materials, 2018, 30, e1705799.	11.1	150
46	Hierarchical 3D Architectured Ag Nanowires Shelled with NiMn-Layered Double Hydroxide as an Efficient Bifunctional Oxygen Electrocatalyst. ACS Nano, 2020, 14, 1770-1782.	7.3	145
47	A plasmonic chip for biomarker discovery and diagnosis of type 1 diabetes. Nature Medicine, 2014, 20, 948-953.	15.2	142
48	Diagnosis of Zika virus infection on a nanotechnology platform. Nature Medicine, 2017, 23, 548-550.	15.2	130
49	Molecular Imaging in the Second Nearâ€Infrared Window. Advanced Functional Materials, 2019, 29, 1900566.	7.8	125
50	Molecular Cancer Imaging in the Second Nearâ€Infrared Window Using a Renalâ€Excreted NIRâ€II Fluorophoreâ€Peptide Probe. Advanced Materials, 2018, 30, e1800106.	11.1	115
51	An operando X-ray diffraction study of chloroaluminate anion-graphite intercalation in aluminum batteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5670-5675.	3.3	109
52	Selective and High Current CO₂ Electro-Reduction to Multicarbon Products in Near-Neutral KCl Electrolytes. Journal of the American Chemical Society, 2021, 143, 3245-3255.	6.6	108
53	Nearâ€Infrared IIb Fluorescence Imaging of Vascular Regeneration with Dynamic Tissue Perfusion Measurement and High Spatial Resolution. Advanced Functional Materials, 2018, 28, 1803417.	7.8	107
54	A mini-review on rare-earth down-conversion nanoparticles for NIR-II imaging of biological systems. Nano Research, 2020, 13, 1281-1294.	5.8	105

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55	Concentrated Dual-Salt Electrolyte to Stabilize Li Metal and Increase Cycle Life of Anode Free Li-Metal Batteries. Journal of the Electrochemical Society, 2019, 166, A1501-A1509.	1.3	104
56	Site Activity and Population Engineering of NiRu-Layered Double Hydroxide Nanosheets Decorated with Silver Nanoparticles for Oxygen Evolution and Reduction Reactions. ACS Catalysis, 2019, 9, 117-129.	5.5	103
57	Rechargeable Na/Cl2 and Li/Cl2 batteries. Nature, 2021, 596, 525-530.	13.7	103
58	High-Rate and Long-Cycle Stability with a Dendrite-Free Zinc Anode in an Aqueous Zn-Ion Battery Using Concentrated Electrolytes. ACS Applied Energy Materials, 2020, 3, 4499-4508.	2.5	95
59	In vivo non-invasive confocal fluorescence imaging beyond 1,700â€‰nm using superconducting nanowire single-photon detectors. Nature Nanotechnology, 2022, 17, 653-660.	15.6	88
60	Developing a Bright NIRâ€II Fluorophore with Fast Renal Excretion and Its Application in Molecular Imaging of Immune Checkpoint PDâ€L1. Advanced Functional Materials, 2018, 28, 1804956.	7.8	85
61	High Performance, Multiplexed Lung Cancer Biomarker Detection on a Plasmonic Gold Chip. Advanced Functional Materials, 2016, 26, 7994-8002.	7.8	84
62	Rational Design of High Brightness NIR-II Organic Dyes with S-D-A-D-S Structure. Accounts of Materials Research, 2021, 2, 170-183.	5.9	84
63	Diagnosis and prognosis of myocardial infarction on a plasmonic chip. Nature Communications, 2020, 11, 1654.	5.8	83
64	Quantification of antibody avidities and accurate detection of SARS-CoV-2 antibodies in serum and saliva on plasmonic substrates. Nature Biomedical Engineering, 2020, 4, 1188-1196.	11.6	77
65	Three-dimensional imaging of single nanotube molecule endocytosis on plasmonic substrates. Nature Communications, 2012, 3, 700.	5.8	76
66	A novel quantitative microarray antibody capture assay identifies an extremely high hepatitis delta virus prevalence among hepatitis B virusâ€“infected mongolians. Hepatology, 2017, 66, 1739-1749.	3.6	74
67	Ionic Liquid Analogs of AlCl₃ with Urea Derivatives as Electrolytes for Aluminum Batteries. Advanced Functional Materials, 2020, 30, 1901928.	7.8	74
68	Dual electrolyte additives of potassium hexafluorophosphate and tris (trimethylsilyl) phosphite for anode-free lithium metal batteries. Electrochimica Acta, 2019, 316, 52-59.	2.6	70
69	Rechargeable aluminum batteries: effects of cations in ionic liquid electrolytes. RSC Advances, 2019, 9, 11322-11330.	1.7	66
70	Sub-10-nm graphene nanoribbons with atomically smooth edges from squashed carbon nanotubes. Nature Electronics, 2021, 4, 653-663.	13.1	61
71	Robust and conductive MagnÃ©liÂPhase Ti4O7 decorated on 3D-nanoflower NiRu-LDH as high-performance oxygen reduction electrocatalyst. Nano Energy, 2018, 47, 309-315.	8.2	59
72	Effects of Concentrated Salt and Resting Protocol on Solid Electrolyte Interface Formation for Improved Cycle Stability of Anode-Free Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2019, 11, 31962-31971.	4.0	58

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73	Highly active oxygen evolution integrated with efficient CO ₂ to CO electroreduction. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23915-23922.	3.3	58
74	Tuning Dynamically Formed Active Phases and Catalytic Mechanisms of In Situ Electrochemically Activated Layered Double Hydroxide for Oxygen Evolution Reaction. ACS Nano, 2021, 15, 14996-15006.	7.3	56
75	Deep learning for in vivo near-infrared imaging. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	53
76	Magnetic â€œSquashingâ€•of Circulating Tumor Cells on Plasmonic Substrates for Ultrasensitive NIR Fluorescence Detection. Small Methods, 2019, 3, 1800474.	4.6	52
77	A high-performance potassium metal battery using safe ionic liquid electrolyte. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27847-27853.	3.3	49
78	Highly Reversible Zn Metal Anode Stabilized by Dense and Anionâ€Đerived Passivation Layer Obtained from Concentrated Hybrid Aqueous Electrolyte. Advanced Functional Materials, 2022, 32, 2103959.	7.8	48
79	In vivo NIR-II structured-illumination light-sheet microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	39
80	Graphene Nanoribbons Under Mechanical Strain. Advanced Materials, 2015, 27, 303-309.	11.1	36
81	Crossâ€Linkâ€Functionalized Nanoparticles for Rapid Excretion in Nanotheranostic Applications. Angewandte Chemie - International Edition, 2020, 59, 20552-20560.	7.2	35
82	Proteoliposome-based full-length ZnT8 self-antigen for type 1 diabetes diagnosis on a plasmonic platform. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10196-10201.	3.3	31
83	Autoantibody profiling on a plasmonic nano-gold chip for the early detection of hypertensive heart disease. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7089-7094.	3.3	30
84	Multiplexed Anti-Toxoplasma IgG, IgM, and IgA Assay on Plasmonic Gold Chips: towards Making Mass Screening Possible with Dye Test Precision. Journal of Clinical Microbiology, 2016, 54, 1726-1733.	1.8	29
85	Resolving the Phase Instability of a Fluorinated Ether, Carbonate-Based Electrolyte for the Safe Operation of an Anode-Free Lithium Metal Battery. ACS Applied Energy Materials, 2020, 3, 10722-10733.	2.5	26
86	High-precision tumor resection down to few-cell level guided by NIR-IIb molecular fluorescence imaging. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2123111119.	3.3	26
87	Plasmonic gold chips for the diagnosis of Toxoplasma gondii, CMV, and rubella infections using saliva with serum detection precision. European Journal of Clinical Microbiology and Infectious Diseases, 2019, 38, 883-890.	1.3	22
88	Probing dissolved CO ₂ (aq) in aqueous solutions for CO ₂ electroreduction and storage. Science Advances, 2022, 8, eabo0399.	4.7	17
89	Crossâ€Linkâ€Functionalized Nanoparticles for Rapid Excretion in Nanotheranostic Applications. Angewandte Chemie, 2020, 132, 20733-20741.	1.6	6
90	Exploring the performance of carbonate and ether-based electrolytes for anode-free lithium metal batteries operating under various conditions. Journal of Power Sources, 2021, 512, 230388.	4.0	6

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91	Recent Advances in Development of NIR-II Fluorescent Agents. , 2020, , 83-101.		4