

# Hongjie Dai

## List of Publications by Citations

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93  
papers

33,001  
citations

58  
h-index

97  
g-index

97  
ext. papers

37,665  
ext. citations

19.2  
avg, IF

7.57  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 93 | Chemically derived, ultrasmooth graphene nanoribbon semiconductors. <i>Science</i> , <b>2008</b> , 319, 1229-32   | 33.3 | 4081      |
| 92 | Nano-Graphene Oxide for Cellular Imaging and Drug Delivery. <i>Nano Research</i> , <b>2008</b> , 1, 203-212   | 10   | 2765      |
| 91 | An advanced Ni-Fe layered double hydroxide electrocatalyst for water oxidation. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 8452-5   | 16.4 | 2084      |
| 90 | Narrow graphene nanoribbons from carbon nanotubes. <i>Nature</i> , <b>2009</b> , 458, 877-80  | 50.4 | 2078      |
| 89 | An ultrafast rechargeable aluminium-ion battery. <i>Nature</i> , <b>2015</b> , 520, 325-8   | 50.4 | 1522      |
| 88 | Recent advances in zinc-air batteries. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 5257-75  | 58.5 | 1484      |
| 87 | In vivo biodistribution and highly efficient tumour targeting of carbon nanotubes in mice. <i>Nature Nanotechnology</i> , <b>2007</b> , 2, 47-52  | 28.7 | 1270      |
| 86 | Near-infrared fluorophores for biomedical imaging. <i>Nature Biomedical Engineering</i> , <b>2017</b> , 1,  | 19   | 1255      |
| 85 | Room-temperature all-semiconducting sub-10-nm graphene nanoribbon field-effect transistors. <i>Physical Review Letters</i> , <b>2008</b> , 100, 206803  | 7.4  | 1209      |
| 84 | A mini review of NiFe-based materials as highly active oxygen evolution reaction electrocatalysts. <i>Nano Research</i> , <b>2015</b> , 8, 23-39  | 10   | 984       |
| 83 | A small-molecule dye for NIR-II imaging. <i>Nature Materials</i> , <b>2016</b> , 15, 235-42   | 27   | 939       |
| 82 | Circulation and long-term fate of functionalized, biocompatible single-walled carbon nanotubes in mice probed by Raman spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 1410-5 | 11.5 | 931       |
| 81 | Carbon Nanomaterials for Biological Imaging and Nanomedicinal Therapy. <i>Chemical Reviews</i> , <b>2015</b> , 115, 10816-906   | 68.1 | 902       |
| 80 | A route to brightly fluorescent carbon nanotubes for near-infrared imaging in mice. <i>Nature Nanotechnology</i> , <b>2009</b> , 4, 773-80  | 28.7 | 886       |
| 79 | Deep-tissue anatomical imaging of mice using carbon nanotube fluorophores in the second near-infrared window. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 8943-8                        | 11.5 | 705       |
| 78 | Multifunctional in vivo vascular imaging using near-infrared II fluorescence. <i>Nature Medicine</i> , <b>2012</b> , 18, 1841-6   | 50.5 | 677       |
| 77 | Facile synthesis of high-quality graphene nanoribbons. <i>Nature Nanotechnology</i> , <b>2010</b> , 5, 321-5  | 28.7 | 671       |

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| 76 | Through-skull fluorescence imaging of the brain in a new near-infrared window. <i>Nature Photonics</i> , <b>2014</b> , 8, 723-730  | 33.9 | 642 |
| 75 | Ag <sub>2</sub> S quantum dot: a bright and biocompatible fluorescent nanoprobe in the second near-infrared window. <i>ACS Nano</i> , <b>2012</b> , 6, 3695-702  | 16.7 | 576 |
| 74 | Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window. <i>Nature Communications</i> , <b>2014</b> , 5, 4206   | 17.4 | 394 |
| 73 | Etching and narrowing of graphene from the edges. <i>Nature Chemistry</i> , <b>2010</b> , 2, 661-5   | 17.6 | 384 |
| 72 | A high quantum yield molecule-protein complex fluorophore for near-infrared II imaging. <i>Nature Communications</i> , <b>2017</b> , 8, 15269  | 17.4 | 320 |
| 71 | Near-Infrared-II Molecular Dyes for Cancer Imaging and Surgery. <i>Advanced Materials</i> , <b>2019</b> , 31, e190032124   | 17.4 | 305 |
| 70 | Boosting the down-shifting luminescence of rare-earth nanocrystals for biological imaging beyond 1500 nm. <i>Nature Communications</i> , <b>2017</b> , 8, 737  | 17.4 | 280 |
| 69 | Donor Engineering for NIR-II Molecular Fluorophores with Enhanced Fluorescent Performance. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 1715-1724  | 16.4 | 254 |
| 68 | Rational Design of Molecular Fluorophores for Biological Imaging in the NIR-II Window. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605497   | 24   | 251 |
| 67 | A bright organic NIR-II nanofluorophore for three-dimensional imaging into biological tissues. <i>Nature Communications</i> , <b>2018</b> , 9, 1171  | 17.4 | 242 |
| 66 | Traumatic Brain Injury Imaging in the Second Near-Infrared Window with a Molecular Fluorophore. <i>Advanced Materials</i> , <b>2016</b> , 28, 6872-9   | 24   | 240 |
| 65 | Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 14758-62  | 16.4 | 231 |
| 64 | High Coulombic efficiency aluminum-ion battery using an AlCl <sub>3</sub> -urea ionic liquid analog electrolyte. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 834-839 | 11.5 | 227 |
| 63 | Solar-driven, highly sustained splitting of seawater into hydrogen and oxygen fuels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 6624-6629                           | 11.5 | 223 |
| 62 | Bright quantum dots emitting at ~1,600 nm in the NIR-IIb window for deep tissue fluorescence imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 6590-6595          | 11.5 | 209 |
| 61 | Biological imaging without autofluorescence in the second near-infrared region. <i>Nano Research</i> , <b>2015</b> , 8, 3027-3034  | 10   | 201 |
| 60 | In vivo molecular imaging for immunotherapy using ultra-bright near-infrared-IIb rare-earth nanoparticles. <i>Nature Biotechnology</i> , <b>2019</b> , 37, 1322-1331   | 44.5 | 198 |
| 59 | Plasmonic substrates for multiplexed protein microarrays with femtomolar sensitivity and broad dynamic range. <i>Nature Communications</i> , <b>2011</b> , 2, 466  | 17.4 | 196 |

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|----|--|------|-----|
| 58 | Molecular imaging of biological systems with a clickable dye in the broad 800- to 1,700-nm near-infrared window. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 962-967 | 11.5 | 192 |
| 57 | Graphene nanoribbons with smooth edges behave as quantum wires. <i>Nature Nanotechnology</i> , <b>2011</b> , 6, 563-7  | 28.7 | 173 |
| 56 | Molecular engineering of dispersed nickel phthalocyanines on carbon nanotubes for selective CO <sub>2</sub> reduction. <i>Nature Energy</i> , <b>2020</b> , 5, 684-692   | 62.3 | 151 |
| 55 | Graphene nanoribbons from unzipped carbon nanotubes: atomic structures, Raman spectroscopy, and electrical properties. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 10394-7                                  | 16.4 | 149 |
| 54 | Chirality enriched (12,1) and (11,3) single-walled carbon nanotubes for biological imaging. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 16971-4   | 16.4 | 141 |
| 53 | In Vivo Fluorescence Imaging with Ag <sub>2</sub> S Quantum Dots in the Second Near-Infrared Region. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 9956-9959   | 3.6  | 118 |
| 52 | A plasmonic chip for biomarker discovery and diagnosis of type 1 diabetes. <i>Nature Medicine</i> , <b>2014</b> , 20, 948-53   | 50.5 | 113 |
| 51 | 3D NIR-II Molecular Imaging Distinguishes Targeted Organs with High-Performance NIR-II Bioconjugates. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705799   | 24   | 111 |
| 50 | Light-sheet microscopy in the near-infrared II window. <i>Nature Methods</i> , <b>2019</b> , 16, 545-552   | 21.6 | 93  |
| 49 | Diagnosis of Zika virus infection on a nanotechnology platform. <i>Nature Medicine</i> , <b>2017</b> , 23, 548-550   | 50.5 | 92  |
| 48 | A safe and non-flammable sodium metal battery based on an ionic liquid electrolyte. <i>Nature Communications</i> , <b>2019</b> , 10, 3302  | 17.4 | 91  |
| 47 | Molecular Cancer Imaging in the Second Near-Infrared Window Using a Renal-Excreted NIR-II Fluorophore-Peptide Probe. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800106  | 24   | 88  |
| 46 | Molecular imaging in the second near-infrared window. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1900566   | 55.6 | 85  |
| 45 | Electroreduction of CO to Formate on a Copper-Based Electrocatalyst at High Pressures with High Energy Conversion Efficiency. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 7276-7282                         | 16.4 | 84  |
| 44 | High-Safety and High-Energy-Density Lithium Metal Batteries in a Novel Ionic-Liquid Electrolyte. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001741  | 24   | 81  |
| 43 | Near-Infrared IIb Fluorescence Imaging of Vascular Regeneration with Dynamic Tissue Perfusion Measurement and High Spatial Resolution. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1803417                              | 15.6 | 80  |
| 42 | An operando X-ray diffraction study of chloroaluminate anion-graphite intercalation in aluminum batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 5670-5675     | 11.5 | 74  |
| 41 | Fluorescence Imaging In Vivo at Wavelengths beyond 1500 nm. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 14971-14975  | 3.6  | 72  |

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| 40 | Three-dimensional imaging of single nanotube molecule endocytosis on plasmonic substrates. <i>Nature Communications</i> , <b>2012</b> , 3, 700   | 17.4 | 72 |
| 39 | Site Activity and Population Engineering of NiRu-Layered Double Hydroxide Nanosheets Decorated with Silver Nanoparticles for Oxygen Evolution and Reduction Reactions. <i>ACS Catalysis</i> , <b>2019</b> , 9, 117-129 <sup>13.1</sup> |      | 69 |
| 38 | Hierarchical 3D Architected Ag Nanowires Shelled with NiMn-Layered Double Hydroxide as an Efficient Bifunctional Oxygen Electrocatalyst. <i>ACS Nano</i> , <b>2020</b> , 14, 1770-1782   | 16.7 | 68 |
| 37 | High Performance, Multiplexed Lung Cancer Biomarker Detection on a Plasmonic Gold Chip. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 7994-8002   | 15.6 | 68 |
| 36 | Developing a Bright NIR-II Fluorophore with Fast Renal Excretion and Its Application in Molecular Imaging of Immune Checkpoint PD-L1. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804956                                 | 15.6 | 61 |
| 35 | Concentrated Dual-Salt Electrolyte to Stabilize Li Metal and Increase Cycle Life of Anode Free Li-Metal Batteries. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, A1501-A1509                                      | 3.9  | 57 |
| 34 | A novel quantitative microarray antibody capture assay identifies an extremely high hepatitis delta virus prevalence among hepatitis B virus-infected mongolians. <i>Hepatology</i> , <b>2017</b> , 66, 1739-1749                      | 11.2 | 57 |
| 33 | Diagnosis and prognosis of myocardial infarction on a plasmonic chip. <i>Nature Communications</i> , <b>2020</b> , 11, 1654  | 17.4 | 55 |
| 32 | Rechargeable aluminum batteries: effects of cations in ionic liquid electrolytes.. <i>RSC Advances</i> , <b>2019</b> , 9, 11322-11330  | 3.7  | 44 |
| 31 | Magnetic Squashing of Circulating Tumor Cells on Plasmonic Substrates for Ultrasensitive NIR Fluorescence Detection. <i>Small Methods</i> , <b>2019</b> , 3, 1800474   | 12.8 | 44 |
| 30 | High-Rate and Long-Cycle Stability with a Dendrite-Free Zinc Anode in an Aqueous Zn-Ion Battery Using Concentrated Electrolytes. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 4499-4508                                      | 6.1  | 43 |
| 29 | Ionic Liquid Analogs of AlCl <sub>3</sub> with Urea Derivatives as Electrolytes for Aluminum Batteries. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1901928   | 15.6 | 41 |
| 28 | A mini-review on rare-earth down-conversion nanoparticles for NIR-II imaging of biological systems. <i>Nano Research</i> , <b>2020</b> , 13, 1281-1294   | 10   | 41 |
| 27 | Quantification of antibody avidities and accurate detection of SARS-CoV-2 antibodies in serum and saliva on plasmonic substrates. <i>Nature Biomedical Engineering</i> , <b>2020</b> , 4, 1188-1196                                    | 19   | 40 |
| 26 | Selective and High Current CO Electro-Reduction to Multicarbon Products in Near-Neutral KCl Electrolytes. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 3245-3255   | 16.4 | 35 |
| 25 | Dual electrolyte additives of potassium hexafluorophosphate and tris (trimethylsilyl) phosphite for anode-free lithium metal batteries. <i>Electrochimica Acta</i> , <b>2019</b> , 316, 52-59  | 6.7  | 34 |
| 24 | Robust and conductive Magn $\square$ Phase Ti <sub>4</sub> O <sub>7</sub> decorated on 3D-nanoflower NiRu-LDH as high-performance oxygen reduction electrocatalyst. <i>Nano Energy</i> , <b>2018</b> , 47, 309-315                     | 17.1 | 34 |
| 23 | Highly active oxygen evolution integrated with efficient CO to CO electroreduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 23915-23922                            | 11.5 | 33 |

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|----|--|------|----|
| 22 | Graphene nanoribbons under mechanical strain. <i>Advanced Materials</i> , <b>2015</b> , 27, 303-9  | 24   | 31 |
| 21 | Effects of Concentrated Salt and Resting Protocol on Solid Electrolyte Interface Formation for Improved Cycle Stability of Anode-Free Lithium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 31962-31971       | 9.5  | 27 |
| 20 | Rational Design of High Brightness NIR-II Organic Dyes with S-D-A-D-S Structure. <i>Accounts of Materials Research</i> , <b>2021</b> , 2, 170-183  | 7.5  | 24 |
| 19 | Autoantibody profiling on a plasmonic nano-gold chip for the early detection of hypertensive heart disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 7089-7094                  | 11.5 | 22 |
| 18 | Multiplexed Anti-Toxoplasma IgG, IgM, and IgA Assay on Plasmonic Gold Chips: towards Making Mass Screening Possible with Dye Test Precision. <i>Journal of Clinical Microbiology</i> , <b>2016</b> , 54, 1726-1733                                 | 9.7  | 22 |
| 17 | Rechargeable Na/Cl and Li/Cl batteries. <i>Nature</i> , <b>2021</b> , 596, 525-530   | 50.4 | 22 |
| 16 | Proteoliposome-based full-length ZnT8 self-antigen for type 1 diabetes diagnosis on a plasmonic platform. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 10196-10201                  | 11.5 | 20 |
| 15 | A high-performance potassium metal battery using safe ionic liquid electrolyte. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 27847-27853  | 11.5 | 20 |
| 14 | Deep learning for in vivo near-infrared imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,   | 11.5 | 15 |
| 13 | Sub-10-nm graphene nanoribbons with atomically smooth edges from squashed carbon nanotubes. <i>Nature Electronics</i> , <b>2021</b> , 4, 653-663   | 28.4 | 14 |
| 12 | Plasmonic gold chips for the diagnosis of <i>Toxoplasma gondii</i> , CMV, and rubella infections using saliva with serum detection precision. <i>European Journal of Clinical Microbiology and Infectious Diseases</i> , <b>2019</b> , 38, 883-890 | 5.3  | 13 |
| 11 | Cross-Link-Functionalized Nanoparticles for Rapid Excretion in Nanotheranostic Applications. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 20552-20560  | 16.4 | 12 |
| 10 | In vivo NIR-II structured-illumination light-sheet microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,   | 11.5 | 11 |
| 9  | Tuning Dynamically Formed Active Phases and Catalytic Mechanisms of Electrochemically Activated Layered Double Hydroxide for Oxygen Evolution Reaction. <i>ACS Nano</i> , <b>2021</b> , 15, 14996-15006  | 16.7 | 10 |
| 8  | Highly Reversible Zn Metal Anode Stabilized by Dense and Anion-Derived Passivation Layer Obtained from Concentrated Hybrid Aqueous Electrolyte. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103959                                   | 15.6 | 9  |
| 7  | Resolving the Phase Instability of a Fluorinated Ether, Carbonate-Based Electrolyte for the Safe Operation of an Anode-Free Lithium Metal Battery. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 10722-10733                              | 6.1  | 9  |
| 6  | Exploring the performance of carbonate and ether-based electrolytes for anode-free lithium metal batteries operating under various conditions. <i>Journal of Power Sources</i> , <b>2021</b> , 512, 230388   | 8.9  | 3  |
| 5  | Cross-Link-Functionalized Nanoparticles for Rapid Excretion in Nanotheranostic Applications. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 20733-20741   | 3.6  | 2  |

- 4 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, e2123371119
- 3 Non-Invasive Confocal Fluorescence Imaging of Mice Beyond 1700 nm Using Superconducting Nanowire Single-Photon Detectors 1
- 2 Probing dissolved CO(aq) in aqueous solutions for CO electroreduction and storage.. *Science Advances*, **2022**, 8, eabo0399 14.3 1
- 1 Recent Advances in Development of NIR-II Fluorescent Agents **2020**, 83-101 0