

# Hongda Du

## List of Publications by Year in descending order

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93  
papers

7,889  
citations

53751

45  
h-index

48277

88  
g-index

95  
all docs

95  
docs citations

95  
times ranked

9572  
citing authors

#	ARTICLE	IF	CITATIONS
1	Energetic Zinc Ion Chemistry: The Rechargeable Zinc Ion Battery. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 933-935.	7.2	1,437
2	Novel gel polymer electrolyte for high-performance lithium-sulfur batteries. <i>Nano Energy</i> , 2016, 22, 278-289.	8.2	382
3	Facile synthesis of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> /C composite with super rate performance. <i>Energy and Environmental Science</i> , 2012, 5, 9595.	15.6	323
4	In Situ Synthesis of a Hierarchical All-Solid-State Electrolyte Based on Nitrile Materials for High-Performance Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2015, 5, 1500353.	10.2	300
5	Gassing in Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> -based batteries and its remedy. <i>Scientific Reports</i> , 2012, 2, 913.	1.6	284
6	Preparation and Characterization of MnO <sub>2</sub> /acid-treated CNT Nanocomposites for Energy Storage with Zinc Ions. <i>Electrochimica Acta</i> , 2014, 133, 254-261.	2.6	246
7	Recent progress on manganese dioxide based supercapacitors. <i>Journal of Materials Research</i> , 2010, 25, 1421-1432.	1.2	236
8	A robust strategy for crafting monodisperse Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> nanospheres as superior rate anode for lithium ion batteries. <i>Nano Energy</i> , 2016, 21, 133-144.	8.2	168
9	Preparation and characterization of manganese dioxides with nano-sized tunnel structures for zinc ion storage. <i>Journal of Physics and Chemistry of Solids</i> , 2012, 73, 1487-1491.	1.9	153
10	Multilayered silicon embedded porous carbon/graphene hybrid film as a high performance anode. <i>Carbon</i> , 2015, 84, 434-443.	5.4	144
11	Carbon coating to suppress the reduction decomposition of electrolyte on the Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> electrode. <i>Journal of Power Sources</i> , 2012, 202, 253-261.	4.0	142
12	Porous graphitic carbons prepared by combining chemical activation with catalytic graphitization. <i>Carbon</i> , 2011, 49, 725-729.	5.4	131
13	Electrochemical properties of nanosized hydrous manganese dioxide synthesized by a self-reacting microemulsion method. <i>Journal of Power Sources</i> , 2008, 180, 664-670.	4.0	128
14	Graphite blocks with preferred orientation and high thermal conductivity. <i>Carbon</i> , 2012, 50, 175-182.	5.4	122
15	Enhanced mid-temperature thermoelectric performance of textured SnSe polycrystals made of solvothermally synthesized powders. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2047-2055.	2.7	122
16	Unveiling the Axial Hydroxyl Ligand on Fe/N <sub>4</sub> -C Electrocatalysts and Its Impact on the pH-Dependent Oxygen Reduction Activities and Poisoning Kinetics. <i>Advanced Science</i> , 2020, 7, 2000176.	5.6	111
17	Electrosprayed porous Fe <sub>3</sub> O <sub>4</sub> /carbon microspheres as anode materials for high-performance lithium-ion batteries. <i>Nano Research</i> , 2018, 11, 892-904.	5.8	110
18	Asymmetric Activated Carbon-Manganese Dioxide Capacitors in Mild Aqueous Electrolytes Containing Alkaline-Earth Cations. <i>Journal of the Electrochemical Society</i> , 2009, 156, A435.	1.3	109

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19	Carbon aerogel supported Pt/Ru catalysts for using as the anode of direct methanol fuel cells. Carbon, 2007, 45, 429-435.	5.4	99
20	Reversible Insertion Properties of Zinc Ion into Manganese Dioxide and Its Application for Energy Storage. Electrochemical and Solid-State Letters, 2009, 12, A61.	2.2	99
21	Electrospun core-shell silicon/carbon fibers with an internal honeycomb-like conductive carbon framework as an anode for lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 7112-7120.	5.2	99
22	Flexible supercapacitors. Particuology, 2013, 11, 371-377.	2.0	92
23	Investigation of cyano resin-based gel polymer electrolyte: in situ gelation mechanism and electrode-electrolyte interfacial fabrication in lithium-ion battery. Journal of Materials Chemistry A, 2014, 2, 20059-20066.	5.2	92
24	Thermal conductivity of electrospinning chain-aligned polyethylene oxide (PEO). Polymer, 2017, 115, 52-59.	1.8	92
25	Theoretical Investigation of the Intercalation Chemistry of Lithium/Sodium Ions in Transition Metal Dichalcogenides. Journal of Physical Chemistry C, 2017, 121, 13599-13605.	1.5	87
26	Capacitive Behavior and Charge Storage Mechanism of Manganese Dioxide in Aqueous Solution Containing Bivalent Cations. Journal of the Electrochemical Society, 2009, 156, A73.	1.3	86
27	Supercapacitive studies on amorphous MnO <sub>2</sub> in mild solutions. Journal of Power Sources, 2008, 184, 691-694.	4.0	81
28	Advances in Understanding Materials for Rechargeable Lithium Batteries by Atomic Force Microscopy. Energy and Environmental Materials, 2018, 1, 28-40.	7.3	80
29	Enhanced performance of interconnected LiFePO <sub>4</sub> /C microspheres with excellent multiple conductive network and subtle mesoporous structure. Electrochimica Acta, 2015, 152, 398-407.	2.6	75
30	Universal Descriptor for Large-Scale Screening of High-Performance MXene-Based Materials for Energy Storage and Conversion. Chemistry of Materials, 2018, 30, 2687-2693.	3.2	71
31	Structure and Electrochemical Properties of Zn-Doped Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> as Anode Materials in Li-Ion Battery. Electrochemical and Solid-State Letters, 2010, 13, A36.	2.2	67
32	Influences of Mesopore Size on Oxygen Reduction Reaction Catalysis of Pt/Carbon Aerogels. Journal of Physical Chemistry C, 2007, 111, 2040-2043.	1.5	65
33	Modeling the in-plane thermal conductivity of a graphite/polymer composite sheet with a very high content of natural flake graphite. Carbon, 2012, 50, 5052-5061.	5.4	65
34	The Effect of Vanadium on Physicochemical and Electrochemical Performances of LiFePO <sub>4</sub> Cathode for Lithium Battery. Journal of the Electrochemical Society, 2011, 158, A26.	1.3	64
35	Polymer composites with enhanced thermal conductivity via oriented boron nitride and alumina hybrid fillers assisted by 3-D printing. Ceramics International, 2020, 46, 20810-20818.	2.3	64
36	Experiments and modeling of thermal conductivity of flake graphite/polymer composites affected by adding carbon-based nano-fillers. Carbon, 2013, 57, 452-459.	5.4	56

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37	Highly Crystalline Lithium Titanium Oxide Sheets Coated with Nitrogen-Doped Carbon enable High-Rate Lithium-Ion Batteries. <i>ChemSusChem</i> , 2014, 7, 2567-2574.	3.6	55
38	Suppression of interfacial reactions between Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> electrode and electrolyte solution via zinc oxide coating. <i>Electrochimica Acta</i> , 2015, 157, 266-273.	2.6	51
39	Large Polarization of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> Lithiated to 0 V at Large Charge/Discharge Rates. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 18788-18796.	4.0	51
40	A study on charge storage mechanism of $\pm$ -MnO <sub>2</sub> by occupying tunnels with metal cations (Ba <sup>2+</sup> , K <sup>+</sup> ). <i>Journal of Power Sources</i> , 2011, 196, 7860-7867.	4.0	49
41	The preparation of graphene decorated with manganese dioxide nanoparticles by electrostatic adsorption for use in supercapacitors. <i>Carbon</i> , 2012, 50, 5034-5043.	5.4	49
42	LiFePO <sub>4</sub> /C composite with 3D carbon conductive network for rechargeable lithium ion batteries. <i>Electrochimica Acta</i> , 2013, 109, 512-518.	2.6	48
43	Highly dispersed Pt nanoparticles by pentagon defects introduced in bamboo-shaped carbon nanotube support and their enhanced catalytic activity on methanol oxidation. <i>Carbon</i> , 2009, 47, 1833-1840.	5.4	46
44	Conductive graphene-based macroscopic membrane self-assembled at a liquid-air interface. <i>Journal of Materials Chemistry</i> , 2011, 21, 3359.	6.7	46
45	Preparation of mesophase-pitch-based activated carbons for electric double layer capacitors with high energy density. <i>Microporous and Mesoporous Materials</i> , 2010, 130, 224-228.	2.2	44
46	Structural and thermal stabilities of layered Li(Ni <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> )O <sub>2</sub> materials in 18650 high power batteries. <i>Journal of Power Sources</i> , 2011, 196, 10322-10327.	4.0	40
47	Fast microwave-assisted synthesis of gas-sensing SnO <sub>2</sub> quantum dots with high sensitivity. <i>Sensors and Actuators B: Chemical</i> , 2016, 236, 646-653.	4.0	40
48	Effects of solvent on structures and properties of electrospun poly(ethylene oxide) nanofibers. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45787.	1.3	40
49	Group VB transition metal dichalcogenides for oxygen reduction reaction and strain-enhanced activity governed by p-orbital electrons of chalcogen. <i>Nano Research</i> , 2019, 12, 925-930.	5.8	39
50	Effects of tin doping on physicochemical and electrochemical performances of LiFe <sub>1-x</sub> Sn <sub>x</sub> PO <sub>4</sub> /C (0 ≤ x ≤ 0.07) composite cathode materials. <i>Electrochimica Acta</i> , 2011, 56, 7385-7391.	2.6	38
51	Anomalous effect of K ions on electrochemical capacitance of amorphous MnO <sub>2</sub> . <i>Journal of Power Sources</i> , 2013, 234, 1-7.	4.0	36
52	Atomic Imaging of Subsurface Interstitial Hydrogen and Insights into Surface Reactivity of Palladium Hydrides. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20348-20352.	7.2	36
53	High loading of Pt-Ru nanocatalysts by pentagon defects introduced in a bamboo-shaped carbon nanotube support for high performance anode of direct methanol fuel cells. <i>Electrochemistry Communications</i> , 2009, 11, 355-358.	2.3	35
54	Preparation of oriented graphite/polymer composite sheets with high thermal conductivities by tape casting. <i>New Carbon Materials</i> , 2012, 27, 241-249.	2.9	34

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55	The effect of particle size on the interaction of Pt catalyst particles with a carbon black support. <i>New Carbon Materials</i> , 2010, 25, 53-59.	2.9	33
56	Enhanced thermal conductivity of alumina and carbon fibre filled composites by 3-D printing. <i>Thermochimica Acta</i> , 2020, 690, 178649.	1.2	32
57	Synthesis of Lithium Iron Phosphate/Carbon Microspheres by Using Polyacrylic Acid Coated Iron Phosphate Nanoparticles Derived from Iron(III) Acrylate. <i>ChemSusChem</i> , 2015, 8, 1009-1016.	3.6	31
58	Effects of current densities on the formation of LiCoO <sub>2</sub> /graphite lithium ion battery. <i>Journal of Solid State Electrochemistry</i> , 2011, 15, 1977-1985.	1.2	30
59	Thermal Resistance Analysis of Sn-Bi Solder Paste Used as Thermal Interface Material for Power Electronics Applications. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2014, 136, .	1.2	30
60	Inorganic-based sol-gel synthesis of nano-structured LiFePO <sub>4</sub> /C composite materials for lithium ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 1353-1362.	1.2	29
61	Mesoporous Cr <sub>2</sub> O <sub>3</sub> nanotubes as an efficient catalyst for Li <sup>+</sup> O <sub>2</sub> batteries with low charge potential and enhanced cyclic performance. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7727-7735.	5.2	28
62	The improvement of the high-rate charge/discharge performances of LiFePO <sub>4</sub> cathode material by Sn doping. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 1-8.	1.2	27
63	A statistical model for effective thermal conductivity of composite materials. <i>International Journal of Thermal Sciences</i> , 2016, 104, 348-356.	2.6	26
64	High catalytic activity of anatase titanium dioxide for decomposition of electrolyte solution in lithium ion battery. <i>Journal of Power Sources</i> , 2014, 268, 882-886.	4.0	25
65	Carbon coated porous tin peroxide/carbon composite electrode for lithium-ion batteries with excellent electrochemical properties. <i>Carbon</i> , 2015, 81, 739-747.	5.4	25
66	Mitigating Metal Dissolution and Redeposition of Pt-Co Catalysts in PEM Fuel Cells: Impacts of Structural Ordering and Particle Size. <i>Journal of the Electrochemical Society</i> , 2020, 167, 064520.	1.3	25
67	Environment-friendly preparation of exfoliated graphite and functional graphite sheets. <i>Journal of Materiomics</i> , 2021, 7, 136-145.	2.8	25
68	Tailoring Native Defects and Zinc Impurities in Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> : Insights from First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5238-5245.	1.5	23
69	Enhanced thermal conductivity by combined fillers in polymer composites. <i>Thermochimica Acta</i> , 2019, 676, 198-204.	1.2	23
70	The effect of pre-carbonization of mesophase pitch-based activated carbons on their electrochemical performance for electric double-layer capacitors. <i>Journal of Solid State Electrochemistry</i> , 2011, 15, 787-794.	1.2	22
71	Surface-reconstructed graphite nanofibers as a support for cathode catalysts of fuel cells. <i>Chemical Communications</i> , 2011, 47, 3900.	2.2	21
72	Effects of TiO <sub>2</sub> crystal structure on the performance of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> anode material. <i>Journal of Alloys and Compounds</i> , 2012, 513, 524-529.	2.8	21

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73	Modulating Surface Composition and Oxygen Reduction Reaction Activities of Pt@Ni Octahedral Nanoparticles by Microwave-Enhanced Surface Diffusion during Solvothermal Synthesis. <i>Chemistry of Materials</i> , 2018, 30, 4355-4360.	3.2	21
74	Unraveling the Influence of Metal Substrates on Graphene Nucleation from First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23239-23245.	1.5	20
75	Graphene-Based Porous Catalyst with High Stability and Activity for the Methanol Oxidation Reaction. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25918-25923.	1.5	18
76	Pt Submonolayers on Au Nanoparticles: Coverage-Dependent Atomic Structures and Electrocatalytic Stability on Methanol Oxidation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28664-28671.	1.5	17
77	Influence of reaction temperature on the particle-composition distributions and activities of polyol-synthesized Pt-Ru/C catalysts for methanol oxidation. <i>Journal of Power Sources</i> , 2009, 191, 233-239.	4.0	15
78	Anomalous effect of K ion on crystallinity and capacitance of the manganese dioxide. <i>Journal of Power Sources</i> , 2013, 225, 226-230.	4.0	15
79	Synergistic effect of carbon fiber and alumina in improving the thermal conductivity of polydimethylsiloxane composite. <i>Thermochimica Acta</i> , 2021, 703, 178980.	1.2	14
80	The influences of multi-walled carbon nanotube addition to the anode on the performance of direct methanol fuel cells. <i>Journal of Power Sources</i> , 2008, 184, 381-384.	4.0	13
81	Prediction of interfacial thermal resistance of carbon fiber in one dimensional fiber-reinforced composites using laser flash analysis. <i>Composites Science and Technology</i> , 2015, 110, 69-75.	3.8	13
82	Vertically aligned carbon nanotubes grown on reduced graphene oxide as high-performance thermal interface materials. <i>Journal of Materials Science</i> , 2020, 55, 9414-9424.	1.7	13
83	Platinum Nanowires: Structural and catalytic evolution upon annealing temperature. <i>Electrochimica Acta</i> , 2015, 164, 182-186.	2.6	11
84	Electrochemical synthesis of graphene oxide from graphite flakes exfoliated at room temperature. <i>Applied Surface Science</i> , 2022, 598, 153788.	3.1	11
85	Enhanced oxygen reduction performance of Pt catalysts by nano-loops formed on the surface of carbon nanofiber support. <i>Carbon</i> , 2008, 46, 2140-2143.	5.4	10
86	Thermal design and optimization of lithium ion batteries for unmanned aerial vehicles. <i>Energy Storage</i> , 2019, 1, e48.	2.3	10
87	Freeze-drying method prepared UHMWPE/CNTs composites with optimized micromorphologies and improved tribological performance. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	7
88	First principles study of ruthenium(II) sensitizer adsorption on anatase TiO <sub>2</sub> (001) surface. <i>RSC Advances</i> , 2015, 5, 60230-60236.	1.7	7
89	Silver-based thermal interface materials with low thermal resistance. , 2012, , .		6
90	First-principles study of native defects in LiTi <sub>2</sub> O <sub>4</sub> . <i>Computational Materials Science</i> , 2015, 96, 263-267.	1.4	6

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91	Electrolytes: In Situ Synthesis of a Hierarchical All-Solid-State Electrolyte Based on Nitrile Materials for High-Performance Lithium-Ion Batteries (Adv. Energy Mater. 15/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	10.2	2
92	Family of Magic-Sized Carbon Clusters on Transition Metal Substrates. Advanced Functional Materials, 2020, 30, 2006671.	7.8	2
93	Incoherent phonon transport dominates heat conduction across van der Waals superlattices. Applied Physics Letters, 2022, 121, .	1.5	2