Peng-Xiang Hou

List of Publications by Year
in descending order

84 papers	7,727 citations	66234 42 h-index	53109 85 g-index
89 all docs	89 docs citations	89 times ranked	11091 citing authors

#	Article	IF	Citations
1	Selfâ€Assembled Freeâ€Standing Graphite Oxide Membrane. Advanced Materials, 2009, 21, 3007-3011.	11.1	868
2	Low-Temperature Exfoliated Graphenes: Vacuum-Promoted Exfoliation and Electrochemical Energy Storage. ACS Nano, 2009, 3, 3730-3736.	7.3	694
3	Purification of carbon nanotubes. Carbon, 2008, 46, 2003-2025.	5.4	660
4	A flexible nanostructured sulphurâ€“carbon nanotube cathode with high rate performance for Li-S batteries. Energy and Environmental Science, 2012, 5, 8901.	15.6	468
5	Flexible layer-structured Bi2Te3 thermoelectric on a carbon nanotube scaffold. Nature Materials, 2019, 18, 62-68.	13.3	316
6	A 3D bi-functional porous N-doped carbon microtube sponge electrocatalyst for oxygen reduction and oxygen evolution reactions. Energy and Environmental Science, 2016, 9, 3079-3084.	15.6	260
7	Toward More Reliable Lithiumâ€“Sulfur Batteries: An All-Graphene Cathode Structure. ACS Nano, 2016, 10, 8676-8682.	7.3	246
8	A possible buckybowl-like structure of zeolite templated carbon. Carbon, 2009, 47, 1220-1230.	5.4	243
9	Heteroatomâ€Doped Carbon Nanotube and Grapheneâ€Based Electrocatalysts for Oxygen Reduction Reaction. Small, 2017, 13, 1702002.	5.2	202
10	High-Pressure Hydrogen Storage in Zeolite-Templated Carbon. Journal of Physical Chemistry C, 2009, 113, 3189-3196.	1.5	181
11	Ultrahigh-performance transparent conductive films of carbon-welded isolated single-wall carbon nanotubes. Science Advances, 2018, 4, eaap9264.	4.7	178
12	Investigation of the Ion Storage/Transfer Behavior in an Electrical Doubleâ€Layer Capacitor by Using Ordered Microporous Carbons as Model Materials. Chemistry - A European Journal, 2009, 15, 5355-5363.	1.7	155
13	A nanosized Fe2O3 decorated single-walled carbon nanotube membrane as a high-performance flexible anode for lithium ion batteries. Journal of Materials Chemistry, 2012, 22, 17942.	6.7	153
14	Improved electrochemical performance of Fe2O3 nanoparticles confined in carbon nanotubes. Journal of Materials Chemistry, 2012, 22, 13756.	6.7	142
15	Bulk Synthesis of Large Diameter Semiconducting Single-Walled Carbon Nanotubes by Oxygen-Assisted Floating Catalyst Chemical Vapor Deposition. Journal of the American Chemical Society, 2011, 133, 5232-5235.	6.6	134
16	Preparation and electrochemical property of Fe2O3 nanoparticles-filled carbon nanotubes. Chemical Communications, 2010, 46, 8576.	2.2	116
17	High Reversible Lithium Storage Capacity and Structural Changes of Fe₂O₃ Nanoparticles Confined inside Carbon Nanotubes. Advanced Energy Materials, 2016, 6, 1501755.	10.2	109
18	Dualâ€Phasic Carbon with Co Single Atoms and Nanoparticles as a Bifunctional Oxygen Electrocatalyst for Rechargeable Znâ€“Air Batteries. Advanced Functional Materials, 2021, 31, 2103360.	7.8	107

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19	Lithiation of Silicon Nanoparticles Confined in Carbon Nanotubes. ACS Nano, 2015, 9, 5063-5071.	7.3	105
20	N-doped carbon nanotubes containing a high concentration of single iron atoms for efficient oxygen reduction. NPG Asia Materials, 2018, 10, e461-e461.	3.8	103
21	High-Quality, Highly Concentrated Semiconducting Single-Wall Carbon Nanotubes for Use in Field Effect Transistors and Biosensors. ACS Nano, 2013, 7, 6831-6839.	7.3	101
22	A flexible cotton-derived carbon sponge for high-performance capacitive deionization. Carbon, 2016, 101, 1-8.	5.4	100
23	Carbon nanotube encapsulated in nitrogen and phosphorus co-doped carbon as a bifunctional electrocatalyst for oxygen reduction and evolution reactions. Carbon, 2018, 139, 156-163.	5.4	97
24	Highly Dispersive Cerium Atoms on Carbon Nanowires as Oxygen Reduction Reaction Electrocatalysts for Znâ€“Air Batteries. Nano Letters, 2021, 21, 4508-4515.	4.5	89
25	Preparation of Metallic Single-Wall Carbon Nanotubes by Selective Etching. ACS Nano, 2014, 8, 7156-7162.	7.3	81
26	Growth of semiconducting single-wall carbon nanotubes with a narrow band-gap distribution. Nature Communications, 2016, 7, 11160.	5.8	75
27	Hierarchically porous Fe-N-doped carbon nanotubes as efficient electrocatalyst for oxygen reduction. Carbon, 2016, 109, 632-639.	5.4	74
28	Fluorination-assisted preparation of self-supporting single-atom Fe-N-doped single-wall carbon nanotube film as bifunctional oxygen electrode for rechargeable Zn-Air batteries. Applied Catalysis B: Environmental, 2021, 294, 120239.	10.8	70
29	Bulk Storage Capacity of Hydrogen in Purified Multiwalled Carbon Nanotubes. Journal of Physical Chemistry B, 2002, 106, 963-966.	1.2	64
30	Continuous Fabrication of Meterâ€Scale Singleâ€Wall Carbon Nanotube Films and their Use in Flexible and Transparent Integrated Circuits. Advanced Materials, 2018, 30, e1802057.	11.1	63
31	Synthesis of Carbon Nanotubes by Floating Catalyst Chemical Vapor Deposition and Their Applications. Advanced Functional Materials, 2022, 32, 2108541.	7.8	63
32	A Freestanding Singleâ€Wall Carbon Nanotube Film Decorated with Nâ€Doped Carbonâ€Encapsulated Ni Nanoparticles as a Bifunctional Electrocatalyst for Overall Water Splitting. Advanced Science, 2019, 6, 1802177.	5.6	56
33	A nitrogen-doped mesoporous carbon containing an embedded network of carbon nanotubes as a highly efficient catalyst for the oxygen reduction reaction. Nanoscale, 2015, 7, 19201-19206.	2.8	55
34	MXene-Carbon Nanotube Hybrid Membrane for Robust Recovery of Au from Trace-Level Solution. ACS Applied Materials & Interfaces, 2020, 12, 43032-43041.	4.0	53
35	Structural Changes in Iron Oxide and Gold Catalysts during Nucleation of Carbon Nanotubes Studied by In Situ Transmission Electron Microscopy. ACS Nano, 2014, 8, 292-301.	7.3	52
36	Densification of ordered microporous carbons and controlling their micropore size by hot-pressing. Carbon, 2007, 45, 2011-2016.	5.4	51

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37	High-performance single-wall carbon nanotube transparent conductive films. Journal of Materials Science and Technology, 2019, 35, 2447-2462.	5.6	51
38	Selective removal of metallic single-walled carbon nanotubes by combined in situ and post-synthesis oxidation. Carbon, 2010, 48, 2941-2947.	5.4	50
39	Efficient adsorption of organic dyes on a flexible single-wall carbon nanotube film. Journal of Materials Chemistry A, 2016, 4, 1191-1194.	5.2	48
40	A MnO2 nanosheet/single-wall carbon nanotube hybrid fiber for wearable solid-state supercapacitors. Carbon, 2018, 140, 634-643.	5.4	48
41	Monolayer carbon-encapsulated Mo-doped Ni nanoparticles anchored on single-wall carbon nanotube film for total water splitting. Applied Catalysis B: Environmental, 2020, 269, 118823.	10.8	46
42	Synthesis and Electrochemical Lithium Storage Behavior of Carbon Nanotubes Filled with Iron Sulfide Nanoparticles. Advanced Science, 2016, 3, 1600113.	5.6	44
43	Identification of active sites in nitrogen and sulfur co-doped carbon-based oxygen reduction catalysts. Carbon, 2019, 147, 303-311.	5.4	44
44	Small-bundle single-wall carbon nanotubes for high-efficiency silicon heterojunction solar cells. Nano Energy, 2018, 50, 521-527.	8.2	43
45	Vertically aligned carbon nanotube arrays as a thermal interface material. APL Materials, 2019, 7, .	2.2	43
46	Double-wall carbon nanotube transparent conductive films with excellent performance. Journal of Materials Chemistry A, 2014, 2, 1159-1164.	5.2	42
47	Controlled filling of Permalloy into one-end-opened carbon nanotubes. Journal of Materials Chemistry, 2007, 17, 986-991.	6.7	38
48	Carbon nanotube-clamped metal atomic chain. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9055-9059.	3.3	36
49	Highâ€Throughput Fabrication of Flexible and Transparent Allâ€Carbon Nanotube Electronics. Advanced Science, 2018, 5, 1700965.	5.6	34
50	Epitaxial growth of single-wall carbon nanotubes. Carbon, 2016, 102, 181-197.	5.4	32
51	Semiconductor nanochannels in metallic carbon nanotubes by thermomechanical chirality alteration. Science, 2021, 374, 1616-1620.	6.0	32
52	High-efficiency and stable silicon heterojunction solar cells with lightly fluorinated single-wall carbon nanotube films. Nano Energy, 2020, 69, 104442.	8.2	28
53	Enrichment of Semiconducting Single-Walled Carbon Nanotubes by Carbothermic Reaction for Use in All-Nanotube Field Effect Transistors. ACS Nano, 2012, 6, 9657-9661.	7.3	27
54	The effect of carbon support on the oxygen reduction activity and durability of single-atom iron catalysts. MRS Communications, 2018, 8, 1158-1166.	0.8	27

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55	In Situ TEM Observations on the Sulfur-Assisted Catalytic Growth of Single-Wall Carbon Nanotubes. Journal of Physical Chemistry Letters, 2014, 5, 1427-1432.	2.1	26
56	Carbon-encapsulated NiO nanoparticle decorated single-walled carbon nanotube thin films for binderless flexible electrodes of supercapacitors. Journal of Materials Chemistry A, 2017, 5, 24813-24819.	5.2	25
57	Preparation of metallic single-wall carbon nanotubes. Carbon, 2019, 147, 187-198.	5.4	22
58	Synthesis and field emission property of carbon nanotubes with sharp tips. New Carbon Materials, 2011, 26, 52-56.	2.9	21
59	Growth of metal-catalyst-free nitrogen-doped metallic single-wall carbon nanotubes. Nanoscale, 2014, 6, 12065-12070.	2.8	21
60	Selective Growth of Metalâ€Free Metallic and Semiconducting Singleâ€Wall Carbon Nanotubes. Advanced Materials, 2017, 29, 1605719.	11.1	21
61	Clean, fast and scalable transfer of ultrathin/patterned vertically-aligned carbon nanotube arrays. Carbon, 2018, 133, 275-282.	5.4	21
62	Transparent and flexible hydrogen sensor based on semiconducting single-wall carbon nanotube networks. Carbon, 2019, 151, 156-159.	5.4	19
63	Growth of double-walled carbon nanotubes from silicon oxide nanoparticles. Carbon, 2013, 56, 167-172.	5.4	18
64	Surface-restrained growth of vertically aligned carbon nanotube arrays with excellent thermal transport performance. Nanoscale, 2017, 9, 8213-8219.	2.8	17
65	Heteroepitaxial Growth of Single-Walled Carbon Nanotubes from Boron Nitride. Scientific Reports, 2012, 2, 971.	1.6	16
66	Template synthesis of ultra-thin and short carbon nanotubes with two open ends. Journal of Materials Chemistry, 2012, 22, 15221.	6.7	16
67	Applications of carbon nanotubes and graphene produced by chemical vapor deposition. MRS Bulletin, 2017, 42, 825-833.	1.7	14
68	De-bundling of single-wall carbon nanotubes induced by an electric field during arc discharge synthesis. Carbon, 2014, 74, 370-373.	5.4	13
69	Kinetics-Controlled Growth of Metallic Single-Wall Carbon Nanotubes from CoRe_x Nanoparticles. ACS Nano, 2022, 16, 232-240.	7.3	13
70	Amorphization and Directional Crystallization of Metals Confined in Carbon Nanotubes Investigated by in Situ Transmission Electron Microscopy. Nano Letters, 2015, 15, 4922-4927.	4.5	12
71	Ionothermal-Transformation Strategy to Synthesize Hierarchically Tubular Porous Single-Iron-Atom Catalysts for High-Performance Zincâ€“Air Batteries. ACS Applied Materials & Interfaces, 2021, 13, 58576-58584.	4.0	12
72	Selective growth of semiconducting single-wall carbon nanotubes using SiC as a catalyst. Carbon, 2018, 135, 195-201.	5.4	11

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73	Aerosol Jet Printing of Graphene and Carbon Nanotube Patterns on Realistically Rugged Substrates. ACS Omega, 2021, 6, 34301-34313.	1.6	11
74	A carbon nanotube non-volatile memory device using a photoresist gate dielectric. Carbon, 2017, 124, 700-707.	5.4	10
75	Growth of a cup-stacked carbon nanotube carpet with a superhydrophobic surface. New Carbon Materials, 2013, 28, 295-299.	2.9	9
76	Synthesis of high quality nitrogen-doped single-wall carbon nanotubes. Science China Materials, 2015, 58, 603-610.	3.5	9
77	Nitrogenâ€Doped Reduced Graphene Oxide Hydrogel Achieved via a Oneâ€Step Hydrothermal Process. ChemNanoMat, 2019, 5, 1144-1151.	1.5	9
78	The importance of H2 in the controlled growth of semiconducting single-wall carbon nanotubes. Journal of Materials Science and Technology, 2020, 54, 105-111.	5.6	9
79	FeCl3-functionalized graphene oxide/single-wall carbon nanotube/silicon heterojunction solar cells with an efficiency of 17.5%. Journal of Materials Chemistry A, 0, , .	5.2	9
80	Growth of tadpole-like carbon nanotubes from TiO2 nanoparticles. Carbon, 2013, 55, 253-259.	5.4	7
81	Air-stable room-temperature photodetector based on large-diameter small-bundle single-wall carbon nanotube films. Journal of Materials Science and Technology, 2021, 73, 205-209.	5.6	7
82	Preparation of isolated semiconducting single-wall carbon nanotubes by oxygen-assisted floating catalyst chemical vapor deposition. Chemical Engineering Journal, 2022, 450, 137861.	6.6	7
83	Synthesis of coaxial nanocables of single-walled carbon nanotubes sheathed with amorphous silicon oxide. New Carbon Materials, 2013, 28, 8-13.	2.9	2
84	Honeycomb-like single-wall carbon nanotube networks. Journal of Materials Chemistry A, 2014, 2, 3308-3311.	5.2	2