Xiang Peng

List of Publications by Year in descending order

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69 papers	5,120 citations	76294 40 h-index	91828 69 g-index
69 all docs	69 docs citations	69 times ranked	7470 citing authors

#	Article	IF	Citations
1	Freestanding Mesoporous VN/CNT Hybrid Electrodes for Flexible Allâ€Solidâ€State Supercapacitors. Advanced Materials, 2013, 25, 5091-5097.	11.1	420
2	Recent progress of transition metal nitrides for efficient electrocatalytic water splitting. Sustainable Energy and Fuels, 2019, 3, 366-381.	2.5	305
3	Enhanced Ion Conductivity in Conducting Polymer Binder for Highâ€Performance Silicon Anodes in Advanced Lithiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1702314.	10.2	258
4	Recent advance and prospectives of electrocatalysts based on transition metal selenides for efficient water splitting. Nano Energy, 2020, 78, 105234.	8.2	250
5	Antibacterial effects of titanium embedded with silver nanoparticles based on electron-transfer-induced reactive oxygen species. Biomaterials, 2017, 124, 25-34.	5.7	219
6	Elucidating the Intercalation Pseudocapacitance Mechanism of MoS₂â€“Carbon Monolayer Interoverlapped Superstructure: Toward High-Performance Sodium-Ion-Based Hybrid Supercapacitor. ACS Applied Materials & Interfaces, 2017, 9, 32745-32755.	4.0	156
7	An antibacterial platform based on capacitive carbon-doped TiO2 nanotubes after direct or alternating currentÂcharging. Nature Communications, 2018, 9, 2055.	5.8	153
8	Hydrogenated V₂O₅ Nanosheets for Superior Lithium Storage Properties. Advanced Functional Materials, 2016, 26, 784-791.	7.8	149
9	Ni/Co-based nanosheet arrays for efficient oxygen evolution reaction. Nano Energy, 2018, 52, 360-368.	8.2	135
10	Vanadium carbide nanoparticles encapsulated in graphitic carbon network nanosheets: A high-efficiency electrocatalyst for hydrogen evolution reaction. Nano Energy, 2016, 26, 603-609.	8.2	120
11	In situ segregation of cobalt nanoparticles on VN nanosheets via nitriding of Co 2 V 2 O 7 nanosheets as efficient oxygen evolution reaction electrocatalysts. Nano Energy, 2017, 34, 1-7.	8.2	119
12	Ni-doped amorphous iron phosphide nanoparticles on TiN nanowire arrays: An advanced alkaline hydrogen evolution electrocatalyst. Nano Energy, 2018, 53, 66-73.	8.2	115
13	Highly Stretchable Conductive Glue for Highâ€Performance Silicon Anodes in Advanced Lithiumâ€Ion Batteries. Advanced Functional Materials, 2018, 28, 1704858.	7.8	113
14	Mesoporous nitrogen-doped carbon hollow spheres as high-performance anodes for lithium-ion batteries. Journal of Power Sources, 2016, 324, 233-238.	4.0	108
15	Corrosion resistance and cytocompatibility of tantalum-surface-functionalized biomedical ZK60 Mg alloy. Corrosion Science, 2017, 114, 45-56.	3.0	106
16	Bamboo leaf derived ultrafine Si nanoparticles and Si/C nanocomposites for high-performance Li-ion battery anodes. Nanoscale, 2015, 7, 13840-13847.	2.8	105
17	Nitrogenâ€Doped Carbon Encapsulated Mesoporous Vanadium Nitride Nanowires as Selfâ€Supported Electrodes for Flexible Allâ€Solidâ€State Supercapacitors. Advanced Materials Interfaces, 2015, 2, 1500211.	1.9	104
18	Mesoporous hollow nanospheres consisting of carbon coated silica nanoparticles for robust lithium-ion battery anodes. Journal of Power Sources, 2017, 345, 227-236.	4.0	99

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19	Flexible Nb2O5 nanowires/graphene film electrode for high-performance hybrid Li-ion supercapacitors. Journal of Power Sources, 2016, 328, 599-606.	4.0	95
20	Coaxial PANI/TiN/PANI nanotube arrays for high-performance supercapacitor electrodes. Chemical Communications, 2013, 49, 10172.	2.2	92
21	Mesoporous TiO₂ Nanocrystals/Graphene as an Efficient Sulfur Host Material for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2016, 8, 23784-23792.	4.0	89
22	Reduced graphene oxide encapsulated selenium nanoparticles for high-power lithiumâ€“selenium battery cathode. Journal of Power Sources, 2015, 288, 214-220.	4.0	88
23	Spatially confined synthesis of vanadium nitride nanodots intercalated carbon nanosheets with ultrahigh volumetric capacitance and long life for flexible supercapacitors. Nano Energy, 2018, 51, 128-136.	8.2	87
24	Peapod-like V2O3 nanorods encapsulated into carbon as binder-free and flexible electrodes in lithium-ion batteries. Journal of Power Sources, 2016, 331, 58-66.	4.0	86
25	In Situ Synthesis of MoP Nanoflakes Intercalated Nâ€Doped Graphene Nanobelts from MoO₃â€“Amine Hybrid for Highâ€Efficient Hydrogen Evolution Reaction. Small, 2018, 14, e1800667.	5.2	85
26	In situ synthesis of Ni(OH)2/TiO2 composite film on NiTi alloy for non-enzymatic glucose sensing. Sensors and Actuators B: Chemical, 2016, 232, 150-157.	4.0	80
27	Multilayered paper-like electrodes composed of alternating stacked mesoporous Mo₂N nanobelts and reduced graphene oxide for flexible all-solid-state supercapacitors. Journal of Materials Chemistry A, 2015, 3, 14617-14624.	5.2	75
28	Extracellular Electron Transfer from Aerobic Bacteria to Au-Loaded TiO₂ Semiconductor without Light: A New Bacteria-Killing Mechanism Other than Localized Surface Plasmon Resonance or Microbial Fuel Cells. ACS Applied Materials & Interfaces, 2016, 8, 24509-24516.	4.0	62
29	Large-Scale Synthesis and Mechanism of Î²-SiC Nanoparticles from Rice Husks by Low-Temperature Magnesiothermic Reduction. ACS Sustainable Chemistry and Engineering, 2016, 4, 6600-6607.	3.2	62
30	Mitigation of Corrosion on Magnesium Alloy by Predesigned Surface Corrosion. Scientific Reports, 2015, 5, 17399.	1.6	59
31	Synthesis of mesoporous niobium nitride nanobelt arrays and their capacitive properties. Applied Surface Science, 2016, 383, 57-63.	3.1	58
32	Strategies to improve cobalt-based electrocatalysts for electrochemical water splitting. Journal of Catalysis, 2021, 398, 54-66.	3.1	58
33	Direct anodic exfoliation of graphite onto high-density aligned graphene for large capacity supercapacitors. Nano Energy, 2017, 34, 515-523.	8.2	56
34	Low Work Function Surface Modifiers for Solutionâ€Processed Electronics: A Review. Advanced Materials Interfaces, 2018, 5, 1701404.	1.9	56
35	Hierarchical Porous Carbon Materials Derived from Self-Template Bamboo Leaves for Lithiumâ€“Sulfur Batteries. Electrochimica Acta, 2017, 229, 352-360.	2.6	55
36	Non-enzymatic hydrogen peroxide photoelectrochemical sensor based on WO3 decorated coreâ€“shell TiC/C nanofibers electrode. Electrochimica Acta, 2013, 108, 491-496.	2.6	51

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37	Molybdenum diselenide â€“ black phosphorus heterostructures for electrocatalytic hydrogen evolution. Applied Surface Science, 2019, 467-468, 328-334.	3.1	47
38	Se-NiSe2 hybrid nanosheet arrays with self-regulated elemental Se for efficient alkaline water splitting. Journal of Materials Science and Technology, 2022, 118, 136-143.	5.6	46
39	Crumpled N-doped carbon nanotubes encapsulated with peapod-like Ge nanoparticles for high-rate and long-life Li-ion battery anodes. Journal of Materials Chemistry A, 2016, 4, 7585-7590.	5.2	44
40	Nanoporous Activated Carbon Derived from Rice Husk for High Performance Supercapacitor. Journal of Nanomaterials, 2014, 2014, 1-7.	1.5	43
41	Large and porous carbon sheets derived from water hyacinth for high-performance supercapacitors. RSC Advances, 2016, 6, 29996-30003.	1.7	43
42	Lithiation Kinetics in High-Performance Porous Vanadium Nitride Nanosheet Anode. Electrochimica Acta, 2016, 214, 201-207.	2.6	41
43	Three-Dimensional Activated Carbon Recycled from Rotten Potatoes for High-performance Supercapacitors. Waste and Biomass Valorization, 2016, 7, 551-557.	1.8	35
44	General fabrication of mesoporous Nb₂O₅ nanobelts for lithium ion battery anodes. RSC Advances, 2016, 6, 90489-90493.	1.7	34
45	Highly Durable and Efficient Ni-FeO_x/FeNi₃ Electrocatalysts Synthesized by a Facile In Situ Combustion-Based Method for Overall Water Splitting with Large Current Densities. ACS Applied Materials & Interfaces, 2022, 14, 27842-27853.	4.0	34
46	Rice Husk-Derived Activated Carbon for Li Ion Battery Anode. Nanoscience and Nanotechnology Letters, 2014, 6, 68-71.	0.4	32
47	Porous Dualâ€Layered MoO_x Nanotube Arrays with Highly Conductive TiN Cores for Supercapacitors. ChemElectroChem, 2015, 2, 512-517.	1.7	30
48	Spatially controlled synthesis of superlattice-like SnS/nitrogen-doped graphene hybrid nanobelts as high-rate and durable anode materials for sodium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 27475-27483.	5.2	29
49	Non-conjugated diketone as a linkage for enhancing the rate performance of poly(perylenediimides). Journal of Materials Chemistry A, 2020, 8, 19283-19289.	5.2	28
50	Long-term antibacterial characteristics and cytocompatibility of titania nanotubes loaded with Au nanoparticles without photocatalytic effects. Applied Surface Science, 2017, 414, 230-237.	3.1	25
51	Supercapacitor Electrodes Based on Hierarchical Mesoporous MnO_x/Nitrided TiO₂ Nanorod Arrays on Carbon Fiber Paper. Advanced Materials Interfaces, 2015, 2, 1400446.	1.9	22
52	Selfâ€Supporting and Binderâ€Free Anode Film Composed of Beaded Streamâ€Like Li₄Ti₅O₁₂ Nanoparticles for Highâ€Performance Lithiumâ€Ion Batteries. ChemElectroChem, 2016, 3, 1301-1305.	1.7	21
53	WO3 nanoparticles decorated coreâ€“shell TiCâ€“C nanofiber arrays for high sensitive and non-enzymatic photoelectrochemical biosensing. Chemical Communications, 2013, 49, 7091.	2.2	20
54	Dominant Factors Governing the Electron Transfer Kinetics and Electrochemical Biosensing Properties of Carbon Nanofiber Arrays. ACS Applied Materials & Interfaces, 2016, 8, 28872-28879.	4.0	19

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55	Lowâ€Temperature Synthesis of Mesoporous SiC Hollow Spheres by Magnesiothermic Reduction. Journal of the American Ceramic Society, 2016, 99, 1859-1861.	1.9	19
56	Enhanced corrosion resistance and biocompatibilty of PMMA-coated ZK60 magnesium alloy. Materials Letters, 2016, 173, 178-181.	1.3	19
57	In situ fabrication of Ni nanoparticles on N-doped TiO₂ nanowire arrays by nitridation of NiTiO₃ for highly sensitive and enzyme-free glucose sensing. Journal of Materials Chemistry B, 2017, 5, 1779-1786.	2.9	19
58	Tantalum nitride films for corrosion protection of biomedical Mg-Y-RE alloy. Journal of Alloys and Compounds, 2018, 764, 947-958.	2.8	19
59	Suppressing photoinduced charge recombination at the BiVO4||NiOOH junction by sandwiching an oxygen vacancy layer for efficient photoelectrochemical water oxidation. Journal of Colloid and Interface Science, 2022, 608, 1116-1125.	5.0	19
60	Hafnium-implanted WE43 magnesium alloy for enhanced corrosion protection and biocompatibility. Surface and Coatings Technology, 2016, 306, 11-15.	2.2	18
61	Nitrogen Doped Carbon Nanosheets Encapsulated in situ Generated Sulfur Enable High Capacity and Superior Rate Cathode for Li-S Batteries. Frontiers in Chemistry, 2018, 6, 429.	1.8	16
62	Robust Electrodes Based on Coaxial TiC/C-MnO₂Core/Shell Nanofiber Arrays with Excellent Cycling Stability for High-Performance Supercapacitors. Small, 2015, 11, 1847-1856.	5.2	15
63	Carbon-Doped TiO₂ Nanotube Array Platform for Visible Photocatalysis. Nanoscience and Nanotechnology Letters, 2013, 5, 1251-1257.	0.4	12
64	Three-dimensional flexible carbon electrode for symmetrical supercapacitors. Materials Letters, 2016, 185, 193-196.	1.3	11
65	Freestanding Nanoengineered [001] Preferentially Oriented TiO₂ Nanosheetsâ^'Graphene Planarly Aligned Nanohybrids with Enhanced Liâ€Storage Properties. ChemElectroChem, 2017, 4, 2819-2825.	1.7	9
66	Fabrication of PANI/C-TiO₂Composite Nanotube Arrays Electrode for Supercapacitor. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	8
67	Battery Binders: Highly Stretchable Conductive Glue for Highâ€Performance Silicon Anodes in Advanced Lithiumâ€Ion Batteries (Adv. Funct. Mater. 3/2018). Advanced Functional Materials, 2018, 28, 1870016.	7.8	8
68	Electrocatalysts: In Situ Synthesis of MoP Nanoflakes Intercalated Nâ€Doped Graphene Nanobelts from MoO₃â€“Amine Hybrid for Highâ€Efficient Hydrogen Evolution Reaction (Small 25/2018). Small, 2018, 14, 1870115.	5.2	5
69	Titanium Dioxide Nanotube Arrays for Sensitive and Reliable Photoelectrochemical Sensors. Nanoscience and Nanotechnology Letters, 2013, 5, 1002-1006.	0.4	2