

Peng-Yi Tang

List of Publications by Year in descending order

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63
papers

3,589
citations

117625

34
h-index

144013

57
g-index

65
all docs

65
docs citations

65
times ranked

5483
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile Synthesis of Graphite/PEDOT/MnO ₂ Composites on Commercial Supercapacitor Separator Membranes as Flexible and High-Performance Supercapacitor Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 10506-10515.	8.0	205
2	Enhanced Activity and Acid pH Stability of Prussian Blue-type Oxygen Evolution Electrocatalysts Processed by Chemical Etching. Journal of the American Chemical Society, 2016, 138, 16037-16045.	13.7	194
3	Enhanced photoelectrochemical water splitting of hematite multilayer nanowire photoanodes by tuning the surface state via bottom-up interfacial engineering. Energy and Environmental Science, 2017, 10, 2124-2136.	30.8	185
4	A universal strategy for metal oxide anchored and binder-free carbon matrix electrode: A supercapacitor case with superior rate performance and high mass loading. Nano Energy, 2017, 31, 311-321.	16.0	169
5	Engineering grain boundaries at the 2D limit for the hydrogen evolution reaction. Nature Communications, 2020, 11, 57.	12.8	153
6	Hierarchical Co ₃ O ₄ @PPy@MnO ₂ core-shell nanowire arrays for enhanced electrochemical energy storage. Nano Energy, 2014, 7, 42-51.	16.0	152
7	From rational design of a new bimetallic MOF family with tunable linkers to OER catalysts. Journal of Materials Chemistry A, 2019, 7, 1616-1628.	10.3	148
8	NiSn bimetallic nanoparticles as stable electrocatalysts for methanol oxidation reaction. Applied Catalysis B: Environmental, 2018, 234, 10-18.	20.2	142
9	Role of Tungsten Doping on the Surface States in BiVO ₄ Photoanodes for Water Oxidation: Tuning the Electron Trapping Process. ACS Catalysis, 2018, 8, 3331-3342.	11.2	135
10	A prototype reactor for highly selective solar-driven CO ₂ reduction to synthesis gas using nanosized earth-abundant catalysts and silicon photovoltaics. Energy and Environmental Science, 2017, 10, 2256-2266.	30.8	116
11	Amorphizing noble metal chalcogenide catalysts at the single-layer limit towards hydrogen production. Nature Catalysis, 2022, 5, 212-221.	34.4	113
12	Synergistic effects in 3D honeycomb-like hematite nanoflakes/branched polypyrrole nanoleaves heterostructures as high-performance negative electrodes for asymmetric supercapacitors. Nano Energy, 2016, 22, 189-201.	16.0	102
13	Atomically dispersed Fe in a C ₂ N Based Catalyst as a Sulfur Host for Efficient Lithium-Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2003507.	19.5	91
14	Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266.	24.0	91
15	High performance asymmetric supercapacitor based on MnO ₂ electrode in ionic liquid electrolyte. Journal of Materials Chemistry A, 2013, 1, 3706.	10.3	90
16	MnO ₂ /graphene/nickel foam composite as high performance supercapacitor electrode via a facile electrochemical deposition strategy. Materials Letters, 2012, 76, 127-130.	2.6	89
17	A High Conductivity 1D Conjugated Metal-Organic Framework with Efficient Polysulfide Trapping-Diffusion-Catalysis in Lithium-Sulfur Batteries. Advanced Materials, 2022, 34, e2108835.	21.0	86
18	Colloidal Ni-Co-Sn nanoparticles as efficient electrocatalysts for the methanol oxidation reaction. Journal of Materials Chemistry A, 2018, 6, 22915-22924.	10.3	85

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19	Ultrasensitive binder-free glucose sensors based on the pyrolysis of in situ grown Cu MOF. <i>Sensors and Actuators B: Chemical</i> , 2018, 254, 272-281.	7.8	84
20	MoS ₂ @NiO Composite Nanostructures: An Advanced Nonprecious Catalyst for Hydrogen Evolution Reaction in Alkaline Media. <i>Advanced Functional Materials</i> , 2019, 29, 1807562.	14.9	83
21	Engineering surface states of hematite based photoanodes for boosting photoelectrochemical water splitting. <i>Nanoscale Horizons</i> , 2019, 4, 1256-1276.	8.0	79
22	Tailor-made metal-nitrogen-carbon bifunctional electrocatalysts for rechargeable Zn-air batteries via controllable MOF units. <i>Energy Storage Materials</i> , 2019, 17, 46-61.	18.0	70
23	Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification. <i>Advanced Energy Materials</i> , 2019, 9, 1901836.	19.5	64
24	Stability of Pd ₃ Pb Nanocubes during Electrocatalytic Ethanol Oxidation. <i>Chemistry of Materials</i> , 2020, 32, 2044-2052.	6.7	62
25	Constructed Uninterrupted Charge-Transfer Pathways in Three-Dimensional Micro/Nano-interconnected Carbon-Based Electrodes for High Energy-Density Ultralight Flexible Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 210-218.	8.0	52
26	Compositionally tuned Ni _x Sn alloys as anode materials for lithium-ion and sodium-ion batteries with a high pseudocapacitive contribution. <i>Electrochimica Acta</i> , 2019, 304, 246-254.	5.2	51
27	Step-by-step assembled poly(3,4-ethylenedioxythiophene)/manganese dioxide composite electrodes: Tuning the structure for high electrochemical performance. <i>Electrochimica Acta</i> , 2013, 89, 300-309.	5.2	48
28	Quasi-double-star nickel and iron active sites for high-efficiency carbon dioxide electroreduction. <i>Energy and Environmental Science</i> , 2021, 14, 4847-4857.	30.8	43
29	Tailoring Copper Foam with Silver Dendrite Catalysts for Highly Selective Carbon Dioxide Conversion into Carbon Monoxide. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 43650-43660.	8.0	39
30	Superior methanol electrooxidation performance of (110)-faceted nickel polyhedral nanocrystals. <i>Journal of Materials Chemistry A</i> , 2019, 7, 22036-22043.	10.3	38
31	Co-Sn Nanocrystalline Solid Solutions as Anode Materials in Lithium-Ion Batteries with High Pseudocapacitive Contribution. <i>ChemSusChem</i> , 2019, 12, 1451-1458.	6.8	38
32	Site-Specific Axial Oxygen Coordinated FeN ₄ Active Sites for Highly Selective Electroreduction of Carbon Dioxide. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	38
33	Metal Oxide Clusters on Nitrogen-Doped Carbon are Highly Selective for CO ₂ Electroreduction to CO. <i>ACS Catalysis</i> , 2021, 11, 10028-10042.	11.2	37
34	Upscaling high activity oxygen evolution catalysts based on CoFe ₂ O ₄ nanoparticles supported on nickel foam for power-to-gas electrochemical conversion with energy efficiencies above 80%. <i>Applied Catalysis B: Environmental</i> , 2019, 259, 118055.	20.2	35
35	A metal-decorated nickel foam-inducing regulatable manganese dioxide nanosheet array architecture for high-performance supercapacitor applications. <i>Nanoscale</i> , 2013, 5, 8156.	5.6	34
36	Controlled Construction of Hierarchical Nanocomposites Consisting of MnO ₂ and PEDOT for High-Performance Supercapacitor Applications. <i>ChemElectroChem</i> , 2015, 2, 949-957.	3.4	34

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37	Enhanced energy density of asymmetric supercapacitors via optimizing negative electrode material and mass ratio of negative/positive electrodes. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 1701-1710.	2.5	33
38	Porous NiTiO ₃ /TiO ₂ nanostructures for photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17053-17059.	10.3	33
39	Molecular engineering to introduce carbonyl between nickel salophen active sites to enhance electrochemical CO ₂ reduction to methanol. <i>Applied Catalysis B: Environmental</i> , 2022, 314, 121451.	20.2	32
40	Molecular Engineering to Tune the Ligand Environment of Atomically Dispersed Nickel for Efficient Alcohol Electrochemical Oxidation. <i>Advanced Functional Materials</i> , 2021, 31, 2106349.	14.9	27
41	Molecular dynamics simulation of deformation accumulation in repeated nanometric cutting on single-crystal copper. <i>RSC Advances</i> , 2015, 5, 12678-12685.	3.6	25
42	Insights into the Performance of Co _x Ni _{1-x} TiO ₃ Solid Solutions as Photocatalysts for Sun-Driven Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 40290-40297.	8.0	23
43	Tin Diselenide Molecular Precursor for Solution-Processable Thermoelectric Materials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17063-17068.	13.8	23
44	Multilayered Hematite Nanowires with Thin-Film Silicon Photovoltaics in an All-Earth-Abundant Hybrid Tandem Device for Solar Water Splitting. <i>ChemSusChem</i> , 2019, 12, 1428-1436.	6.8	17
45	A novel π -d conjugated cobalt tetraaza[14]annulene based atomically dispersed electrocatalyst for efficient CO ₂ reduction. <i>Chemical Engineering Journal</i> , 2022, 442, 136129.	12.7	16
46	Cobalt Hexacyanoferrate as a Selective and High Current Density Formate Oxidation Electrocatalyst. <i>ACS Applied Energy Materials</i> , 2020, 3, 9198-9207.	5.1	15
47	Atomic-Scale Insights into Nickel Exsolution on LaNiO ₃ Catalysts via <i>In Situ</i> Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2022, 126, 786-796.	3.1	14
48	Push-Pull Electronic Effects in Surface-Active Sites Enhance Electrocatalytic Oxygen Evolution on Transition Metal Oxides. <i>ChemSusChem</i> , 2021, 14, 1595-1601.	6.8	10
49	Encapsulation architecture for energy storage. <i>Materials Today</i> , 2015, 18, 352-353.	14.2	9
50	Tin Diselenide Molecular Precursor for Solution-Processable Thermoelectric Materials. <i>Angewandte Chemie</i> , 2018, 130, 17309-17314.	2.0	9
51	Engineering the Interfacial Microenvironment via Surface Hydroxylation to Realize the Global Optimization of Electrochemical CO ₂ Reduction. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 32157-32165.	8.0	8
52	Enhanced Heterojunction Quality and Performance of Kesterite Solar Cells by Aluminum Hydroxide Nanolayers and Efficiency Limitation Revealed by Atomic-resolution Scanning Transmission Electron Microscopy. <i>Solar Rrl</i> , 2018, 3, 1800279.	5.8	6
53	The Ethylhexanoate Route to Metal Oxide Nanocrystals: Synthesis of CoO Nanooctahedra from Coll 2-Ethylhexanoate. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 3963-3968.	2.0	5
54	2D Organic Layered Materials: Atomically dispersed Fe in a C ₂ N Based Catalyst as a Sulfur Host for Efficient Lithium-Sulfur Batteries (Adv. Energy Mater. 5/2021). <i>Advanced Energy Materials</i> , 2021, 11, 2170022.	19.5	3

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55	Microscale flowers. <i>Materials Today</i> , 2015, 18, 410-411.	14.2	2
56	Solvothermal Synthesis, Gas Sensing Properties, and Solar Cell-Aided Investigation of TiO_2 - MoO_x Nanocrystals. <i>ChemNanoMat</i> , 2017, 3, 798-807.	2.8	2
57	Photoelectrochemical Water Splitting: Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification (<i>Adv. Energy Mater.</i> 34/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970131.	19.5	1
58	Boosting Photoelectrochemical Water Oxidation of Hematite by Surface States Modification. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
59	Controlled Construction of Hierarchical Nanocomposites Consisting of MnO_2 and PEDOT for High-Performance Supercapacitor Applications. <i>ChemElectroChem</i> , 2015, 2, 913-913.	3.4	0
60	Hierarchically encapsulated MoO_3 @ SnO_2 nanobelts as negative electrodes of supercapacitors. , 2017, , .		0
61	Bottom-up Engineering of Hematite Nanowire Heterostructures for Photoelectrochemical Water Splitting. , 0, , .		0
62	(Invited) Bottom-up Engineering of Hematite Nanowire Heterostructures for Photoelectrochemical Water Splitting. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
63	Bottom-up Engineering of Hematite Nanowire Heterostructures for Photoelectrochemical Water Splitting. , 0, , .		0