

# Cheng Tang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

103 papers	10,299 citations	54 h-index	101 g-index
113 ext. papers	13,220 ext. citations	14.5 avg, IF	7.33 L-index

#	Paper	IF	Citations
103	Micelle-templating interfacial self-assembly of two-dimensional mesoporous nanosheets for sustainable H <sub>2</sub> O <sub>2</sub> electrosynthesis. <i>Sustainable Materials and Technologies</i> , <b>2022</b> , e00398	5.3	2
102	Engineering Low-Coordination Single-Atom Cobalt on Graphitic Carbon Nitride Catalyst for Hydrogen Evolution. <i>ACS Catalysis</i> , <b>2022</b> , 12, 5517-5526	13.1	3
101	Electrocatalytic green ammonia production beyond ambient aqueous nitrogen reduction. <i>Chemical Engineering Science</i> , <b>2022</b> , 117735	4.4	6
100	Synchrotron X-ray Spectroscopic Investigations of In-Situ Formed Alloy Anodes for Magnesium Batteries.. <i>Advanced Materials</i> , <b>2021</b> , e2108688	24	2
99	Cr-Doped Pd Metallene Endows a Practical Formaldehyde Sensor New Limit and High Selectivity. <i>Advanced Materials</i> , <b>2021</b> , e2105276	24	8
98	Main-group elements boost electrochemical nitrogen fixation. <i>Chem</i> , <b>2021</b> ,	16.2	28
97	Recent advances in electrocatalytic oxygen reduction for on-site hydrogen peroxide synthesis in acidic media. <i>Journal of Energy Chemistry</i> , <b>2021</b> ,	12	9
96	A perspective on sustainable energy materials for lithium batteries. <i>SusMat</i> , <b>2021</b> , 1, 38-50		69
95	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 19724-19742	3.6	5
94	Electrocatalytic Refinery for Sustainable Production of Fuels and Chemicals. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 19572-19590	16.4	93
93	Simplifying the creation of iron compound inserted, nitrogen-doped carbon nanotubes and its catalytic application. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 857, 157543	5.7	3
92	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 14131-14137	16.4	56
91	Tailoring Acidic Oxygen Reduction Selectivity on Single-Atom Catalysts via Modification of First and Second Coordination Spheres. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 7819-7827	16.4	126
90	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 14250-14256	3.6	15
89	The Controllable Reconstruction of Bi-MOFs for Electrochemical CO <sub>2</sub> Reduction through Electrolyte and Potential Mediation. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 18326-18332	3.6	1
88	Recent advances in spinel-type electrocatalysts for bifunctional oxygen reduction and oxygen evolution reactions. <i>Journal of Energy Chemistry</i> , <b>2021</b> , 53, 290-302	12	70
87	Anomalous C-C Coupling on Under-Coordinated Cu (111): A Case Study of Cu Nanopyramids for CO Reduction Reaction by Molecular Modelling. <i>ChemSusChem</i> , <b>2021</b> , 14, 671-678	8.3	4

86	Spatial-confinement induced electroreduction of CO and CO to diols on densely-arrayed Cu nanopyrramids. <i>Chemical Science</i> , <b>2021</b> , 12, 8079-8087	9.4	7
85	Growth Mechanism of 3D Graphene Materials Based on Chemical Vapor Deposition. <i>Springer Theses</i> , <b>2021</b> , 35-56	0.1	
84	Stable and Highly Efficient Hydrogen Evolution from Seawater Enabled by an Unsaturated Nickel Surface Nitride. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007508	24	81
83	The Controllable Reconstruction of Bi-MOFs for Electrochemical CO Reduction through Electrolyte and Potential Mediation. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 18178-18184	16.4	35
82	Mesoscale Diffusion Enhancement of Carbon-Bowl-Shaped Nanoreactor toward High-Performance Electrochemical HO Production. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 39763-39771	9.5	12
81	Hard Carbon Anodes for Next-Generation Li-Ion Batteries: Review and Perspective. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2101650	21.8	35
80	Nano-Confined Hybridization and Electrocatalytic Application Based on 3D Mesoporous Graphene Framework. <i>Springer Theses</i> , <b>2021</b> , 89-118	0.1	
79	Construction and Application of 3D Graphene Materials Based on Templated Polymerization. <i>Springer Theses</i> , <b>2021</b> , 57-88	0.1	
78	Design Principles and Synthesis of 3D Graphene-Analogous Materials and van der Waals Heterostructures. <i>Springer Theses</i> , <b>2021</b> , 119-137	0.1	
77	Coordination Tunes Selectivity: Two-Electron Oxygen Reduction on High-Loading Molybdenum Single-Atom Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 9171-9176	16.4	206
76	Coordination Tunes Selectivity: Two-Electron Oxygen Reduction on High-Loading Molybdenum Single-Atom Catalysts. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 9256-9261	3.6	59
75	The Crucial Role of Charge Accumulation and Spin Polarization in Activating Carbon-Based Catalysts for Electrocatalytic Nitrogen Reduction. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 4555-4561	3.6	4
74	The Crucial Role of Charge Accumulation and Spin Polarization in Activating Carbon-Based Catalysts for Electrocatalytic Nitrogen Reduction. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 4525-4531	16.4	88
73	Engineering the electronic and strained interface for high activity of PdMcore@Ptmonolayer electrocatalysts for oxygen reduction reaction. <i>Science Bulletin</i> , <b>2020</b> , 65, 1396-1404	10.6	42
72	Cobalt Nanoparticles and Atomic Sites in Nitrogen-Doped Carbon Frameworks for Highly Sensitive Sensing of Hydrogen Peroxide. <i>Small</i> , <b>2020</b> , 16, e1902860	11	17
71	High-Power Microbial Fuel Cells Based on a Carbon-Carbon Composite Air Cathode. <i>Small</i> , <b>2020</b> , 16, e1905240	8	
70	Seawater-based electrolyte for Zinc-Air batteries. <i>Green Chemical Engineering</i> , <b>2020</b> , 1, 117-123	3	3
69	In Situ Fragmented Bismuth Nanoparticles for Electrocatalytic Nitrogen Reduction. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001289	21.8	81

68	Advanced energy materials for flexible batteries in energy storage: A review. <i>SmartMat</i> , <b>2020</b> , 1,	22.8	93
67	Molten Salt-Directed Catalytic Synthesis of 2D Layered Transition-Metal Nitrides for Efficient Hydrogen Evolution. <i>CheM</i> , <b>2020</b> , 6, 2382-2394	16.2	67
66	Tailoring Selectivity of Electrochemical Hydrogen Peroxide Generation by Tunable Pyrrolic-Nitrogen-Carbon. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000789	21.8	108
65	Nitrogen Vacancies on 2D Layered W N : A Stable and Efficient Active Site for Nitrogen Reduction Reaction. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902709	24	258
64	How to explore ambient electrocatalytic nitrogen reduction reliably and insightfully. <i>Chemical Society Reviews</i> , <b>2019</b> , 48, 3166-3180	58.5	377
63	Carbon-Based Electrocatalysts: Atomic Modulation and Structure Design of Carbons for Bifunctional Electrocatalysis in Metal-Air Batteries (Adv. Mater. 13/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970095	24	24
62	A review of graphene-based 3D van der Waals hybrids and their energy applications. <i>Nano Today</i> , <b>2019</b> , 25, 27-37	17.9	38
61	3D Hierarchical Porous Graphene-Based Energy Materials: Synthesis, Functionalization, and Application in Energy Storage and Conversion. <i>Electrochemical Energy Reviews</i> , <b>2019</b> , 2, 332-371	29.3	59
60	Electrochemical Nitrogen Reduction: Identification and Elimination of Contamination in Electrolyte. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2111-2116	20.1	100
59	True or False in Electrochemical Nitrogen Reduction. <i>Joule</i> , <b>2019</b> , 3, 1573-1575	27.8	25
58	Few-layered mesoporous graphene for high-performance toluene adsorption and regeneration. <i>Environmental Science: Nano</i> , <b>2019</b> , 6, 3113-3122	7.1	13
57	Two-Dimensional Mosaic Bismuth Nanosheets for Highly Selective Ambient Electrocatalytic Nitrogen Reduction. <i>ACS Catalysis</i> , <b>2019</b> , 9, 2902-2908	13.1	329
56	2D Atomically Thin Electrocatalysts: From Graphene to Metallene. <i>Matter</i> , <b>2019</b> , 1, 1454-1455	12.7	5
55	Core-branch CoNi hydroxysulfides with versatily regulated electronic and surface structures for superior oxygen evolution electrocatalysis. <i>Journal of Energy Chemistry</i> , <b>2019</b> , 38, 8-14	12	48
54	A Nanosized CoNi Hydroxide@Hydroxysulfide Core-Shell Heterostructure for Enhanced Oxygen Evolution. <i>Advanced Materials</i> , <b>2019</b> , 31, e1805658	24	144
53	Atomic Modulation and Structure Design of Carbons for Bifunctional Electrocatalysis in Metal-Air Batteries. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803800	24	141
52	A review of anion-regulated multi-anion transition metal compounds for oxygen evolution electrocatalysis. <i>Inorganic Chemistry Frontiers</i> , <b>2018</b> , 5, 521-534	6.8	76
51	Multiscale Principles To Boost Reactivity in Gas-Involving Energy Electrocatalysis. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 881-889	24.3	335

50	Anion-Regulated Hydroxysulfide Monoliths as OER/ORR/HER Electrocatalysts and their Applications in Self-Powered Electrochemical Water Splitting. <i>Small Methods</i> , <b>2018</b> , 2, 1800055	12.8	63
49	Defect-rich carbon fiber electrocatalysts with porous graphene skin for flexible solid-state zinc-air batteries. <i>Energy Storage Materials</i> , <b>2018</b> , 15, 124-130	19.4	118
48	Template growth of nitrogen-doped mesoporous graphene on metal oxides and its use as a metal-free bifunctional electrocatalyst for oxygen reduction and evolution reactions. <i>Catalysis Today</i> , <b>2018</b> , 301, 25-31	5.3	53
47	Effective exposure of nitrogen heteroatoms in 3D porous graphene framework for oxygen reduction reaction and lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , <b>2018</b> , 27, 167-175	12	90
46	A porphyrin covalent organic framework cathode for flexible Zn-air batteries. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 1723-1729	35.4	219
45	A Review of Precious-Metal-Free Bifunctional Oxygen Electrocatalysts: Rational Design and Applications in Zn-Air Batteries. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1803329	15.6	368
44	Highly Selective Electrochemical Reduction of Dinitrogen to Ammonia at Ambient Temperature and Pressure over Iron Oxide Catalysts. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 18494-18501	4.8	82
43	3D Mesoporous van der Waals Heterostructures for Trifunctional Energy Electrocatalysis. <i>Advanced Materials</i> , <b>2018</b> , 30, 1705110	24	132
42	Predicting a new class of metal-organic frameworks as efficient catalyst for bi-functional oxygen evolution/reduction reactions. <i>Journal of Catalysis</i> , <b>2018</b> , 367, 206-211	7.3	45
41	A Review of Electrocatalytic Reduction of Dinitrogen to Ammonia under Ambient Conditions. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800369	21.8	619
40	Nanocarbon for Oxygen Reduction Electrocatalysis: Dopants, Edges, and Defects. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604103	24	544
39	A Quinonoid-Imine-Enriched Nanostructured Polymer Mediator for Lithium-Sulfur Batteries. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606802	24	107
38	Anionic Regulated NiFe (Oxy)Sulfide Electrocatalysts for Water Oxidation. <i>Small</i> , <b>2017</b> , 13, 1700610	11	104
37	Regulating p-block metals in perovskite nanodots for efficient electrocatalytic water oxidation. <i>Nature Communications</i> , <b>2017</b> , 8, 934	17.4	83
36	A review of nanocarbons in energy electrocatalysis: Multifunctional substrates and highly active sites. <i>Journal of Energy Chemistry</i> , <b>2017</b> , 26, 1077-1093	12	220
35	Bifunctional Transition Metal Hydroxysulfides: Room-Temperature Sulfurization and Their Applications in Zn-Air Batteries. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702327	24	252
34	Thermal Exfoliation of Layered Metal-Organic Frameworks into Ultrahydrophilic Graphene Stacks and Their Applications in Li-S Batteries. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702829	24	115
33	Defect Engineering toward Atomic Co-N -C in Hierarchical Graphene for Rechargeable Flexible Solid Zn-Air Batteries. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703185	24	473

32	Oxygenophilic ionic liquids promote the oxygen reduction reaction in Pt-free carbon electrocatalysts. <i>Materials Horizons</i> , <b>2017</b> , 4, 895-899	14.4	45
31	SAPO-34 templated growth of hierarchical porous graphene cages as electrocatalysts for both oxygen reduction and evolution. <i>New Carbon Materials</i> , <b>2017</b> , 32, 509-516	4.4	11
30	Oxygen Electrocatalysis: Topological Defects in Metal-Free Nanocarbon for Oxygen Electrocatalysis (Adv. Mater. 32/2016). <i>Advanced Materials</i> , <b>2016</b> , 28, 7030-7030	24	10
29	Graphene/nitrogen-doped porous carbon sandwiches for the metal-free oxygen reduction reaction: conductivity versus active sites. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 12658-12666	13	76
28	An aqueous preoxidation method for monolithic perovskite electrocatalysts with enhanced water oxidation performance. <i>Science Advances</i> , <b>2016</b> , 2, e1600495	14.3	63
27	CaO-Templated Growth of Hierarchical Porous Graphene for High-Power LithiumSulfur Battery Applications. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 577-585	15.6	294
26	Porous carbon derived from rice husks as sustainable bioresources: insights into the role of micro-/mesoporous hierarchy in hosting active species for lithiumSulphur batteries. <i>Green Chemistry</i> , <b>2016</b> , 18, 5169-5179	10	117
25	Oxygen Reduction Reaction on Graphene in an Electro-Fenton System: In Situ Generation of H <sub>2</sub> O <sub>2</sub> for the Oxidation of Organic Compounds. <i>ChemSusChem</i> , <b>2016</b> , 9, 1194-9	8.3	67
24	A point-line-point hybrid electrocatalyst for bi-functional catalysis of oxygen evolution and reduction reactions. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3379-3385	13	50
23	GuestHost modulation of multi-metallic (oxy)hydroxides for superb water oxidation. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 3210-3216	13	55
22	Can metalNitrogenCarbon catalysts satisfy oxygen electrochemistry?. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 4998-5001	13	58
21	The nanostructure preservation of 3D porous graphene: New insights into the graphitization and surface chemistry of non-stacked double-layer templated graphene after high-temperature treatment. <i>Carbon</i> , <b>2016</b> , 103, 36-44	10.4	24
20	Advances in Hybrid Electrocatalysts for Oxygen Evolution Reactions: Rational Integration of NiFe Layered Double Hydroxides and Nanocarbon. <i>Particle and Particle Systems Characterization</i> , <b>2016</b> , 33, 473-486	3.1	84
19	Topological Defects in Metal-Free Nanocarbon for Oxygen Electrocatalysis. <i>Advanced Materials</i> , <b>2016</b> , 28, 6845-51	24	522
18	Monolithic-structured ternary hydroxides as freestanding bifunctional electrocatalysts for overall water splitting. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 7245-7250	13	135
17	Highly Exfoliated Reduced Graphite Oxide Powders as Efficient Lubricant Oil Additives. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600700	4.6	44
16	Towards superior oxygen evolution through graphene barriers between metal substrates and hydroxide catalysts. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 16183-16189	13	47
15	Rational recipe for bulk growth of graphene/carbon nanotube hybrids: New insights from in-situ characterization on working catalysts. <i>Carbon</i> , <b>2015</b> , 95, 292-301	10.4	17

14	Dual-sized NiFe layered double hydroxides in situ grown on oxygen-decorated self-dispersal nanocarbon as enhanced water oxidation catalysts. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 24540-24546	13	114
13	Catalysis: Spatially Confined Hybridization of Nanometer-Sized NiFe Hydroxides into Nitrogen-Doped Graphene Frameworks Leading to Superior Oxygen Evolution Reactivity (Adv. Mater. 30/2015). <i>Advanced Materials</i> , <b>2015</b> , 27, 4524	24	4
12	3D Mesoporous Graphene: CVD Self-Assembly on Porous Oxide Templates and Applications in High-Stable Li-S Batteries. <i>Small</i> , <b>2015</b> , 11, 5243-52	11	110
11	Spatially Confined Hybridization of Nanometer-Sized NiFe Hydroxides into Nitrogen-Doped Graphene Frameworks Leading to Superior Oxygen Evolution Reactivity. <i>Advanced Materials</i> , <b>2015</b> , 27, 4516-4522	24	533
10	Nitrogen-doped aligned carbon nanotube/graphene sandwiches: facile catalytic growth on bifunctional natural catalysts and their applications as scaffolds for high-rate lithium-sulfur batteries. <i>Advanced Materials</i> , <b>2014</b> , 26, 6100-5	24	492
9	Lithium-Sulfur Batteries: Hierarchical Vine-Tree-Like Carbon Nanotube Architectures: In-Situ CVD Self-Assembly and Their Use as Robust Scaffolds for Lithium-Sulfur Batteries (Adv. Mater. 41/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 6986-6986	24	3
8	Lithium-Sulfur Batteries: Nitrogen-Doped Aligned Carbon Nanotube/Graphene Sandwiches: Facile Catalytic Growth on Bifunctional Natural Catalysts and Their Applications as Scaffolds for High-Rate Lithium-Sulfur Batteries (Adv. Mater. 35/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 6199-6199	24	3
7	Controllable bulk growth of few-layer graphene/single-walled carbon nanotube hybrids containing Fe@C nanoparticles in a fluidized bed reactor. <i>Carbon</i> , <b>2014</b> , 67, 554-563	10.4	15
6	Resilient aligned carbon nanotube/graphene sandwiches for robust mechanical energy storage. <i>Nano Energy</i> , <b>2014</b> , 7, 161-169	17.1	54
5	Hierarchical vine-tree-like carbon nanotube architectures: In-situ CVD self-assembly and their use as robust scaffolds for lithium-sulfur batteries. <i>Advanced Materials</i> , <b>2014</b> , 26, 7051-8	24	97
4	Characterization of a blend-biosurfactant of glycolipid and lipopeptide produced by <i>Bacillus subtilis</i> TU2 isolated from underground oil-extraction wastewater. <i>Journal of Microbiology and Biotechnology</i> , <b>2013</b> , 23, 390-6	3.3	19
3	Mesoporous Co <sub>3</sub> O <sub>4</sub> nanosheets for electrochemical production of hydrogen peroxide in acidic medium. <i>Journal of Materials Chemistry A</i> ,	13	4
2	C <sub>3</sub> production from CO <sub>2</sub> reduction by concerted *CO trimerization on a single-atom alloy catalyst. <i>Journal of Materials Chemistry A</i> ,	13	4
1	High-Efficiency Electrosynthesis of Hydrogen Peroxide from Oxygen Reduction Enabled by a Tungsten Single Atom Catalyst with Unique Terdentate N 1 O 2 Coordination. <i>Advanced Functional Materials</i> , 2110224	15.6	10