Chen-Hao Wang

List of Publications by Citations

87 papers	2,748 citations	28 h-index	50 g-index
94 ext. papers	3,150 ext. citations	7.2 avg, IF	5.04 L-index

#	Paper	IF	Citations
87	Graphene oxide as a promising photocatalyst for CO2 to methanol conversion. *Nanoscale*, **2013**, 5, 262-8	7.7	346
86	Highly efficient visible light photocatalytic reduction of CO2 to hydrocarbon fuels by Cu-nanoparticle decorated graphene oxide. *Nano Letters*, **2014**, 14, 6097-103	11.5	254
85	High performance of low electrocatalysts loading on CNT directly grown on carbon cloth for DMFC. *Journal of Power Sources*, **2007**, 171, 55-62	8.9	119
84	Vitalizing fuel cells with vitamins: pyrolyzed vitamin B12 as a non-precious catalyst for enhanced oxygen reduction reaction of polymer electrolyte fuel cells. *Energy and Environmental Science*, **2012**, 5, 5305-5314	35.4	104
83	Pyrolyzed Cobalt Corrole as a Potential Non-Precious Catalyst for Fuel Cells. *Advanced Functional Materials*, **2012**, 22, 3500-3508	15.6	93
82	Water-activated graphite felt as a high-performance electrode for vanadium redox flow batteries. *Journal of Power Sources*, **2017**, 341, 270-279	8.9	87
81	Low methanol-permeable polyaniline/Nafion composite membrane for direct methanol fuel cells. *Journal of Power Sources*, **2009**, 190, 279-284	8.9	85
80	Electrocatalytic activity of Nb-doped hexagonal WO3 nanowire-modified graphite felt as a positive electrode for vanadium redox flow batteries. *Journal of Materials Chemistry A*, **2016**, 4, 11472-11480	13	84
79	Multi-porous Co3O4 nanoflakes @ sponge-like few-layer partially reduced graphene oxide hybrids: towards highly stable asymmetric supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 12569-12577	13	83
78	Label-free dual sensing of DNA molecules using GaN nanowires. *Analytical Chemistry*, **2009**, 81, 36-42	7.8	79
77	Deep eutectic solvent promoted one step sustainable conversion of fresh seaweed biomass to functionalized graphene as a potential electrocatalyst. *Green Chemistry*, **2016**, 18, 2819-2826	10	69
76	Controlled platinum nanoparticles uniformly dispersed on nitrogen-doped carbon nanotubes for methanol oxidation. *Diamond and Related Materials*, **2008**, 17, 535-541	3.5	68
75	Fabrication and characterizations of thin film metallic glasses: Antibacterial property and durability study for medical application. *Thin Solid Films*, **2014**, 561, 102-107	2.2	63
74	High-energy asymmetric supercapacitor based on petal-shaped MnO2 nanosheet and carbon nanotube-embedded polyacrylonitrile-based carbon nanofiber working at 2 V in aqueous neutral electrolyte. *Journal of Power Sources*, **2014**, 249, 1-8	8.9	58
73	Stand-up structure of graphene-like carbon nanowalls on CNT directly grown on polyacrylonitrile-based carbon fiber paper as supercapacitor. *Diamond and Related Materials*, **2012**, 25, 176-179	3.5	57
72	Ta2O5-Nanoparticle-Modified Graphite Felt As a High-Performance Electrode for a Vanadium Redox Flow Battery. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 3019-3028	8.3	56
71	High methanol oxidation activity of electrocatalysts supported by directly grown nitrogen-containing carbon nanotubes on carbon cloth. *Electrochimica Acta*, **2006**, 52, 1612-1617	6.7	56

70	High efficiency of CO 2 -activated graphite felt as electrode for vanadium redox flow battery application. *Journal of Power Sources*, **2017**, 364, 1-8	8.9	54
69	High-capacitance KOH-activated nitrogen-containing porous carbon material from waste coffee grounds in supercapacitor. *Advanced Powder Technology*, **2016**, 27, 1387-1395	4.6	45
68	Effect of a sulfur and nitrogen dual-doped Fe□N□ electrocatalyst for the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2017**, 5, 19790-19799	13	41
67	Synergistic effects of a TiNb2O7□educed graphene oxide nanocomposite electrocatalyst for high-performance all-vanadium redox flow batteries. *Journal of Materials Chemistry A*, **2018**, 6, 13908-13917	13	40
66	Graphene oxides and carbon nanotubes embedded in polyacrylonitrile-based carbon nanofibers used as electrodes for supercapacitor. *Journal of Physics and Chemistry of Solids*, **2015**, 85, 62-68	3.9	38
65	Cobalt□ron(II,III) oxide hybrid catalysis with enhanced catalytic activities for oxygen reduction in anion exchange membrane fuel cell. *Journal of Power Sources*, **2015**, 277, 147-154	8.9	36
64	Hydrogen-Treated Defect-Rich W18O49 Nanowire-Modified Graphite Felt as High-Performance Electrode for Vanadium Redox Flow Battery. *ACS Applied Energy Materials*, **2019**, 2, 2541-2551	6.1	32
63	Three-dimensional annealed WO3 nanowire/graphene foam as an electrocatalytic material for all vanadium redox flow batteries. *Sustainable Energy and Fuels*, **2017**, 1, 2091-2100	5.8	32
62	Probing the active site in single-atom oxygen reduction catalysts via operando X-ray and electrochemical spectroscopy. *Nature Communications*, **2020**, 11, 4233	17.4	31
61	High performance of catalysts supported by directly grown PTFE-free micro-porous CNT layer in a proton exchange membrane fuel cell. *Journal of Materials Chemistry*, **2011**, 21, 2512		29
60	Graphene nanosheet□CNT hybrid nanostructure electrode for a proton exchange membrane fuel cell. *International Journal of Hydrogen Energy*, **2012**, 37, 18989-18995	6.7	28
59	Synthesis of Pd@Pt 3 Co/C core□hell structure as catalyst for oxygen reduction reaction in proton exchange membrane fuel cell. *International Journal of Hydrogen Energy*, **2017**, 42, 11771-11778	6.7	26
58	High efficiency of bamboo-like carbon nanotubes on functionalized graphite felt as electrode in vanadium redox flow battery. *RSC Advances*, **2016**, 6, 102068-102075	3.7	25
57	Highly efficient and durable phosphine reduced iron-doped tungsten oxide/reduced graphene oxide nanocomposites for the hydrogen evolution reaction. *International Journal of Hydrogen Energy*, **2018**, 43, 6481-6490	6.7	24
56	Preparation of non-precious metal catalysts for PEMFC cathode from pyrolyzed vitamin B12. *International Journal of Hydrogen Energy*, **2012**, 37, 13755-13762	6.7	24
55	High-performance pyrolyzed iron corrole as a potential non-precious metal catalyst for PEMFCs. *Journal of Materials Chemistry A*, **2013**, 1, 14692	13	23
54	High catalytic activity of oxygen-vacancy-rich tungsten oxide nanowires supported by nitrogen-doped reduced graphene oxide for the hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2018**, 6, 19767-19774	13	23
53	WO3 nanomaterials synthesized via a sol-gel method and calcination for use as a CO gas sensor. *Frontiers of Chemical Science and Engineering*, **2014**, 8, 179-187	4.5	22

52	TiNb2O7 nanoparticle-decorated graphite felt as a high-performance electrode for vanadium redox flow batteries. *Applied Surface Science*, **2018**, 462, 73-80	6.7	21
51	Platinum nanoparticles embedded in pyrolyzed nitrogen-containing cobalt complexes for high methanol-tolerant oxygen reduction activity. *Journal of Materials Chemistry*, **2010**, 20, 7551		20
50	Iridium-decorated palladium-platinum core-shell catalysts for oxygen reduction reaction in proton exchange membrane fuel cell. *Journal of Colloid and Interface Science*, **2014**, 427, 91-7	9.3	19
49	Effects of structures of pyrolyzed corrin, corrole and porphyrin on oxygen reduction reaction. *International Journal of Hydrogen Energy*, **2014**, 39, 934-941	6.7	19
48	Microwave-assisted facile synthesis of cobaltiron oxide nanocomposites for oxygen production using alkaline anion exchange membrane water electrolysis. *International Journal of Hydrogen Energy*, **2019**, 44, 10174-10181	6.7	17
47	A high performance polybenzimidazole□CNT hybrid electrode for high-temperature proton exchange membrane fuel cells. *Journal of Materials Chemistry A*, **2014**, 2, 7015-7019	13	17
46	Highly proton-selective biopolymer layer-coated ion-exchange membrane for direct methanol fuel cells. *ChemSusChem*, **2012**, 5, 392-5	8.3	17
45	Pyrolysis of melamine-treated vitamin B12 as a non-precious metal catalyst for oxygen reduction reaction. *RSC Advances*, **2014**, 4, 4207-4211	3.7	16
44	Functionalizing Biomaterials to Be an Efficient Proton-Exchange Membrane and Methanol Barrier for DMFCs. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 302-308	8.3	16
43	Oxygen reducing activity of methanol-tolerant catalysts by high-temperature pyrolysis. *Diamond and Related Materials*, **2011**, 20, 322-329	3.5	16
42	Effect of Iron Precursors on the Structure and Oxygen Reduction Activity of Iron□Nitrogen□Carbon Catalysts. *Electrochimica Acta*, **2016**, 211, 933-940	6.7	15
41	Sludge selection on the performance of sediment microbial fuel cells. *International Journal of Energy Research*, **2018**, 42, 4250-4255	4.5	13
40	Hybrid Porous Catalysts Derived from Metal□Organic Framework for Oxygen Reduction Reaction in an Anion Exchange Membrane Fuel Cell. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 9143-9152	8.3	12
39	Carbon and metal-based catalysts for vanadium redox flow batteries: a perspective and review of recent progress. *Sustainable Energy and Fuels*, **2021**, 5, 1668-1707	5.8	12
38	Pyrolysis of Iron□Vitamin B9 As a Potential Nonprecious Metal Electrocatalyst for Oxygen Reduction Reaction. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 2897-2905	8.3	11
37	Application of interface material and effects of oxygen gradient on the performance of single-chamber sediment microbial fuel cells (SSMFCs). *Journal of Environmental Sciences*, **2019**, 75, 163-168	6.4	11
36	High stability pyrolyzed vitamin B12 as a non-precious metal catalyst of oxygen reduction reaction in microbial fuel cells. *RSC Advances*, **2013**, 3, 15375	3.7	10
35	Direct current reactive co-sputter deposition of CrWN films to enhance cutting tool performance. *International Journal of Refractory Metals and Hard Materials*, **2013**, 37, 82-89	4.1	10

34	Three-dimensional bifurcations of a two-phase Rayleigh–Benard problem in a cylinder. *International Journal of Heat and Mass Transfer*, **2001**, 44, 1823-1836	4.9	10
33	Oxygen-Vacancy-Rich Cubic CeO2 Nanowires as Catalysts for Vanadium Redox Flow Batteries. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 16757-16765	8.3	10
32	Nanostructured Cementite/Ferrous Sulfide Encapsulated Carbon with Heteroatoms for Oxygen Reduction in Alkaline Environment. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 3185-3194	8.3	9
31	Effect of pyrolysis atmospheres on the morphology of polymer-derived silicon oxynitrocarbide ceramic films coated aluminum nitride surface and the thermal conductivity of silicone rubber composites. *Applied Surface Science*, **2014**, 292, 319-327	6.7	8
30	Fabrication and characterization of silicon-based ceramic/aluminum nitride as thermally conductive hybrid filler in silicone rubber composite. *Materials Chemistry and Physics*, **2014**, 147, 11-16	4.4	8
29	Cathodoluminescence of fluorine doped amorphous carbon nanoparticles deposited by a filtered cathodic arc plasma system. *Carbon*, **2006**, 44, 107-112	10.4	8
28	Synergistic effects of niobium oxide–niobium carbide–reduced graphene oxide modified electrode for vanadium redox flow battery. *Journal of Power Sources*, **2020**, 473, 228590	8.9	8
27	Treatment of Oily Wastewater by the Optimization of Fe2O3 Calcination Temperatures in Innovative Bio-Electron-Fenton Microbial Fuel Cells. *Energies*, **2018**, 11, 565	3.1	8
26	Enhanced activity of selenocyanate-containing transition metal chalcogenides supported by nitrogen-doped carbon materials for the oxygen reduction reaction. *Catalysis Science and Technology*, **2019**, 9, 3426-3434	5.5	7
25	High oxygen reduction reaction activity on various iron loading of Fe-PANI/C catalyst for PEM fuel cell. *Ionics*, **2020**, 26, 813-822	2.7	7
24	The effect of adding Bi on the performance of a newly developed iron-copper redox flow battery.. *RSC Advances*, **2018**, 8, 8537-8543	3.7	6
23	Innovative multi-processed N-doped carbon and Fe3O4 cathode for enhanced bioelectro-Fenton microbial fuel cell performance. *International Journal of Energy Research*, **2019**, 43, 7594	4.5	6
22	Selenium vacancy and phosphorus-doping-induced phase transition engineering of cobalt diselenide as bi-functional catalyst for water electrolysis. *International Journal of Hydrogen Energy*, **2019**, 44, 28566-28577	6.7	5
21	Pulsed electrochemical deposition of Pt NPs on polybenzimidazole-CNT hybrid electrode for high-temperature proton exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2015**, 40, 14398-14404	6.7	5
20	High stability of oxidation of methanol catalyzed by Pt supported by oxygen-incorporated bamboo-shaped CNTs grown directly on carbon cloth. *International Journal of Hydrogen Energy*, **2012**, 37, 10663-10670	6.7	5
19	Nanoscale redox mapping at the MoS-liquid interface. *Nature Communications*, **2021**, 12, 1321	17.4	5
18	High performance of metal-organic framework-derived catalyst supported by tellurium nanowire for oxygen reduction reaction. *Renewable Energy*, **2020**, 158, 324-331	8.1	4
17	Photoreflectance and surface photovoltage spectroscopy characterisation of an InGaP–InGaAsN–GaAs NpN DHBT structure. *IEE Proceedings: Optoelectronics*, **2003**, 150, 99		3

16	Operando Identification of Hydrangea-like and Amorphous Cobalt Oxyhydroxide Supported by Thin-Layer Copper for Oxygen Evolution Reaction. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 12300-12310	8.3	3
15	Microwave-assisted pyrolysis of leaves as a catalyst for the oxygen reduction reaction.. *RSC Advances*, **2020**, 10, 11543-11550	3.7	2
14	On the Reduction of O2 on Cathode Surfaces of Co□orrin and Co□orphyrin: A Computational and Experimental Study on Their Relative Efficiencies in H2O/H2O2 Formation. *Journal of Physical Chemistry C*, **2020**, 124, 4652-4659	3.8	2
13	Effect of Oxygen Gradient on the Organic Degradation and Power Performance of Single Sediment Microbial Fuel Cells. *Energy Procedia*, **2017**, 105, 654-661	2.3	2
12	MoO2□graphene nanocomposite as an electrocatalyst for high-performance vanadium redox flow battery. *Journal of Energy Storage*, **2021**, 40, 102795	7.8	2
11	Metal-Organic Frameworks Derived Catalyst for High-Performance Vanadium Redox Flow Batteries. *Catalysts*, **2021**, 11, 1188	4	2
10	Carbon Nanotube-Supported Catalysts for the Direct Methanol Fuel Cell315-354		1
9	Temperature dependence of current gain of InGaP/InGaAsN/GaAs heterojunction bipolar transistors. *Physica Status Solidi A*, **2004**, 201, 2190-2193		1
8	Solar to hydrocarbon production using metal-free water-soluble bulk heterojunction of conducting polymer nanoparticle and graphene oxide. *Journal of Chemical Physics*, **2021**, 154, 164707	3.9	1
7	High Activity of Platinum-Cobalt Supported by Natto-like N-Doped Carbon Sphere as Durable Catalyst for Oxygen Reduction Reaction. *Energy & Fuels*, **2021**, 35, 15074-15083	4.1	1
6	Island-Type Hybrid Catalysts Applied for Anion Exchange Membrane Water Electrolysis. *Catalysts*, **2022**, 12, 102	4	0
5	Thickness-Dependent Photocatalysis of Ultra-Thin MoS2 Film for Visible-Light-Driven CO2 Reduction. *Catalysts*, **2021**, 11, 1295	4	0
4	Simple way of making free-standing cathode electrodes for flexible lithium-ion batteries.. *RSC Advances*, **2022**, 12, 9249-9255	3.7	0
3	Effects of annealing on the hydrogen concentration and the performance of InGaP/InGaAsN/GaAs heterojunction bipolar transistors. *Journal of Electronic Materials*, **2003**, 32, 948-951	1.9	
2	Pt3Ni/C and Pt3Co/C cathodes as electrocatalysts for use in oxygen sensors and proton exchange membrane fuel cells. *Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences*, **2020**, 75, 1029-1035	1	
1	Development of a Lightweight LTO/Cu Electrode as a Flexible Anode Etching Process for Lithium-Ion Batteries.. *ACS Omega*, **2022**, 7, 10205-10211	3.9	