

Gong-Ming Wang

List of Publications by Year in descending order

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114
papers

20,126
citations

22153

59
h-index

26613

107
g-index

116
all docs

116
docs citations

116
times ranked

22433
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen-Treated TiO ₂ Nanowire Arrays for Photoelectrochemical Water Splitting. Nano Letters, 2011, 11, 3026-3033.	9.1	2,344
2	Flexible solid-state supercapacitors: design, fabrication and applications. Energy and Environmental Science, 2014, 7, 2160.	30.8	1,156
3	Nitrogen-Doped ZnO Nanowire Arrays for Photoelectrochemical Water Splitting. Nano Letters, 2009, 9, 2331-2336.	9.1	1,071
4	Sn-Doped Hematite Nanostructures for Photoelectrochemical Water Splitting. Nano Letters, 2011, 11, 2119-2125.	9.1	994
5	Tailoring the d-Band Centers Enables Co ₄ N Nanosheets To Be Highly Active for Hydrogen Evolution Catalysis. Angewandte Chemie - International Edition, 2018, 57, 5076-5080.	13.8	728
6	High Energy Density Asymmetric Quasi-Solid-State Supercapacitor Based on Porous Vanadium Nitride Nanowire Anode. Nano Letters, 2013, 13, 2628-2633.	9.1	691
7	Hydrogen-treated WO ₃ nanoflakes show enhanced photostability. Energy and Environmental Science, 2012, 5, 6180.	30.8	666
8	Solid-State Supercapacitor Based on Activated Carbon Cloths Exhibits Excellent Rate Capability. Advanced Materials, 2014, 26, 2676-2682.	21.0	660
9	Facile Synthesis of Highly Photoactive Fe_2O_3 -Based Films for Water Oxidation. Nano Letters, 2011, 11, 3503-3509.	9.1	623
10	Double-Sided CdS and CdSe Quantum Dot Co-Sensitized ZnO Nanowire Arrays for Photoelectrochemical Hydrogen Generation. Nano Letters, 2010, 10, 1088-1092.	9.1	587
11	Nanostructured hematite: synthesis, characterization, charge carrier dynamics, and photoelectrochemical properties. Energy and Environmental Science, 2012, 5, 6682.	30.8	492
12	Progress in Developing Metal Oxide Nanomaterials for Photoelectrochemical Water Splitting. Advanced Energy Materials, 2017, 7, 1700555.	19.5	455
13	Deciphering the Modulation Essence of p Bands in Co-Based Compounds on Li-S Chemistry. Joule, 2018, 2, 2681-2693.	24.0	406
14	Electron density modulation of NiCo ₂ S ₄ nanowires by nitrogen incorporation for highly efficient hydrogen evolution catalysis. Nature Communications, 2018, 9, 1425.	12.8	356
15	Oxygen-deficient metal oxide nanostructures for photoelectrochemical water oxidation and other applications. Nanoscale, 2012, 4, 6682.	5.6	345
16	Microbial reduction of graphene oxide by Shewanella. Nano Research, 2011, 4, 563-570.	10.4	327
17	Tuning orbital orientation endows molybdenum disulfide with exceptional alkaline hydrogen evolution capability. Nature Communications, 2019, 10, 1217.	12.8	322
18	Phase and Interface Engineering of Platinum-Nickel Nanowires for Efficient Electrochemical Hydrogen Evolution. Angewandte Chemie - International Edition, 2016, 55, 12859-12863.	13.8	311

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19	LiCl/PVA Gel Electrolyte Stabilizes Vanadium Oxide Nanowire Electrodes for Pseudocapacitors. ACS Nano, 2012, 6, 10296-10302.	14.6	310
20	A New Benchmark Capacitance for Supercapacitor Anodes by Mixed-Valence Sulfur-Doped $V_{6O_{13}}$. Advanced Materials, 2014, 26, 5869-5875.	21.0	305
21	Oxygen defective metal oxides for energy conversion and storage. Nano Today, 2017, 13, 23-39.	11.9	266
22	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. Science Advances, 2015, 1, e1500613.	10.3	265
23	Free-standing nickel oxide nanoflake arrays: synthesis and application for highly sensitive non-enzymatic glucose sensors. Nanoscale, 2012, 4, 3123.	5.6	228
24	Efficient Suppression of Electron-Hole Recombination in Oxygen-Deficient Hydrogen-Treated TiO_2 Nanowires for Photoelectrochemical Water Splitting. Journal of Physical Chemistry C, 2013, 117, 25837-25844.	3.1	222
25	Improving the Cycling Stability of Metal-Nitride Supercapacitor Electrodes with a Thin Carbon Shell. Advanced Energy Materials, 2014, 4, 1300994.	19.5	217
26	Wet-Chemical Synthesis of Hollow Red-Phosphorus Nanospheres with Porous Shells as Anodes for High-Performance Lithium-Ion and Sodium-Ion Batteries. Advanced Materials, 2017, 29, 1700214.	21.0	213
27	N-induced lattice contraction generally boosts the hydrogen evolution catalysis of P-rich metal phosphides. Science Advances, 2020, 6, eaaw8113.	10.3	211
28	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. Nature Communications, 2016, 7, 11330.	12.8	206
29	Achieving Insertion-Like Capacity at Ultrahigh Rate via Tunable Surface Pseudocapacitance. Advanced Materials, 2018, 30, e1706640.	21.0	202
30	van der Waals Heterojunction Devices Based on Organohalide Perovskites and Two-Dimensional Materials. Nano Letters, 2016, 16, 367-373.	9.1	185
31	Carbon doping switching on the hydrogen adsorption activity of NiO for hydrogen evolution reaction. Nature Communications, 2020, 11, 590.	12.8	170
32	A mechanistic study into the catalytic effect of Ni(OH) ₂ on hematite for photoelectrochemical water oxidation. Nanoscale, 2013, 5, 4129.	5.6	169
33	Boosting Water Dissociation Kinetics on Pt-Ni Nanowires by N-Induced Orbital Tuning. Advanced Materials, 2019, 31, e1807780.	21.0	167
34	Three-dimensional graphene framework with ultra-high sulfur content for a robust lithium-sulfur battery. Nano Research, 2016, 9, 240-248.	10.4	165
35	Synergy between Palladium Single Atoms and Nanoparticles via Hydrogen Spillover for Enhancing CO ₂ Photoreduction to CH ₄ . Advanced Materials, 2022, 34, e2200057.	21.0	162
36	Solar driven hydrogen releasing from urea and human urine. Energy and Environmental Science, 2012, 5, 8215.	30.8	160

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37	Tailoring the dâ€Band Centers Enables Co ₄ N Nanosheets To Be Highly Active for Hydrogen Evolution Catalysis. <i>Angewandte Chemie</i> , 2018, 130, 5170-5174.	2.0	160
38	Significantly Enhanced Visible Light Photoelectrochemical Activity in TiO ₂ Nanowire Arrays by Nitrogen Implantation. <i>Nano Letters</i> , 2015, 15, 4692-4698.	9.1	159
39	Chemically modified nanostructures for photoelectrochemical water splitting. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2014, 19, 35-51.	11.6	156
40	Manipulating the Redox Kinetics of Liâ€S Chemistry by Tellurium Doping for Improved Liâ€S Batteries. <i>ACS Energy Letters</i> , 2018, 3, 420-427.	17.4	146
41	In Situ Li ₃ PS ₄ Solidâ€State Electrolyte Protection Layers for Superior Longâ€Life and Highâ€Rate Lithiumâ€Metal Anodes. <i>Advanced Materials</i> , 2018, 30, e1804684.	21.0	140
42	Acid Treatment Enables Suppression of Electronâ€Hole Recombination in Hematite for Photoelectrochemical Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3403-3407.	13.8	132
43	Self-Standing Hierarchical P/CNTs@rGO with Unprecedented Capacity and Stability for Lithium and Sodium Storage. <i>Chem</i> , 2018, 4, 372-385.	11.7	128
44	An Electrochemical Capacitor with Applicable Energy Density of 7.4 Wh/kg at Average Power Density of 3000 W/kg. <i>Nano Letters</i> , 2015, 15, 3189-3194.	9.1	118
45	Synthesis of Stable Shape-Controlled Catalytically Active Î²-Palladium Hydride. <i>Journal of the American Chemical Society</i> , 2015, 137, 15672-15675.	13.7	117
46	Electronic and Ionic Transport Dynamics in Organolead Halide Perovskites. <i>ACS Nano</i> , 2016, 10, 6933-6941.	14.6	115
47	An electrochemical method to enhance the performance of metal oxides for photoelectrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2849-2855.	10.3	114
48	Amorphization-induced surface electronic states modulation of cobaltous oxide nanosheets for lithium-sulfur batteries. <i>Nature Communications</i> , 2021, 12, 3102.	12.8	103
49	Two-dimensional MOS ₂ for hydrogen evolution reaction catalysis: The electronic structure regulation. <i>Nano Research</i> , 2021, 14, 1985-2002.	10.4	98
50	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Fieldâ€Effect Transistors. <i>Advanced Materials</i> , 2017, 29, 1601959.	21.0	91
51	CdSe quantum dot-sensitized Au/TiO ₂ hybrid mesoporous films and their enhanced photoelectrochemical performance. <i>Nano Research</i> , 2011, 4, 249-258.	10.4	87
52	Regulating the Interfacial Electronic Coupling of Fe ₂ N via Orbital Steering for Hydrogen Evolution Catalysis. <i>Advanced Materials</i> , 2020, 32, e1904346.	21.0	86
53	Hexagonal Boron Nitride as a Multifunctional Support for Engineering Efficient Electrocatalysts toward the Oxygen Reduction Reaction. <i>Nano Letters</i> , 2020, 20, 6807-6814.	9.1	82
54	Manipulating the water dissociation kinetics of Ni ₃ N nanosheets via in situ interfacial engineering. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10924-10929.	10.3	79

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55	Mixed-valence Copper Selenide as an Anode for Ultralong Lifespan Rocking-chair Zn-ion Batteries: An Insight into its Intercalation/Extraction Kinetics and Charge Storage Mechanism. <i>Advanced Functional Materials</i> , 2021, 31, 2005092.	14.9	76
56	Phase and Interface Engineering of Platinum-Nickel Nanowires for Efficient Electrochemical Hydrogen Evolution. <i>Angewandte Chemie</i> , 2016, 128, 13051-13055.	2.0	73
57	An on-chip electrical transport spectroscopy approach for in situ monitoring electrochemical interfaces. <i>Nature Communications</i> , 2015, 6, 7867.	12.8	64
58	Interfacial synergies between single-atomic Pt and CoS for enhancing hydrogen evolution reaction catalysis. <i>Applied Catalysis B: Environmental</i> , 2022, 315, 121534.	20.2	63
59	Fully integrated hierarchical double-shelled Co ₉ S ₈ @CNT nanostructures with unprecedented performance for Li-S batteries. <i>Nanoscale Horizons</i> , 2019, 4, 182-189.	8.0	62
60	Photohole Induced Corrosion of Titanium Dioxide: Mechanism and Solutions. <i>Nano Letters</i> , 2015, 15, 7051-7057.	9.1	57
61	Optimizing Hydrogen Adsorption by d Orbital Modulation for Efficient Hydrogen Evolution Catalysis. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	57
62	Cathode-Introduced Atomic H* for Fe(II)-Complex Regeneration to Effective Electro-Fenton Process at a Natural pH. <i>Environmental Science & Technology</i> , 2019, 53, 6927-6936.	10.0	54
63	High-Polarity Fluoroalkyl Ether Electrolyte Enables Solvation-Free Li ⁺ Transfer for High-Rate Lithium Metal Batteries. <i>Advanced Science</i> , 2022, 9, e2104699.	11.2	54
64	High power generation in mixed-culture microbial fuel cells with corncob-derived three-dimensional N-doped bioanodes and the impact of N dopant states. <i>Chemical Engineering Journal</i> , 2020, 399, 125848.	12.7	51
65	Nitrogen doped FeS ₂ nanoparticles for efficient and stable hydrogen evolution reaction. <i>Journal of Energy Chemistry</i> , 2021, 56, 283-289.	12.9	49
66	Ultrasmall Single-Crystal Indium Antimonide Nanowires. <i>Crystal Growth and Design</i> , 2010, 10, 2479-2482.	3.0	45
67	High-Spin Sulfur-Mediated Phosphorous Activation Enables Safe and Fast Phosphorus Anodes for Sodium-Ion Batteries. <i>Chem</i> , 2020, 6, 221-233.	11.7	43
68	Ultrathin SnS ₂ nanosheets as robust polysulfides immobilizers for high performance lithium-sulfur batteries. <i>Materials Research Bulletin</i> , 2017, 96, 509-515.	5.2	42
69	Sulfur Doping Triggering Enhanced Pt-N Coordination in Graphitic Carbon Nitride-Supported Pt Electrocatalysts toward Efficient Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2022, 12, 7406-7414.	11.2	40
70	Promoted alkaline hydrogen evolution by an N-doped Pt-Ru single atom alloy. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14941-14947.	10.3	39
71	Porous Ultrathin W-Doped VO ₂ Nanosheets Enable Boosted Zn ²⁺ (De)Intercalation Kinetics in VO ₂ for High-Performance Aqueous Zn-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 14193-14201.	6.7	38
72	Reduced graphene oxide/silicon nanowire heterostructures with enhanced photoactivity and superior photoelectrochemical stability. <i>Nano Research</i> , 2015, 8, 2850-2858.	10.4	34

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73	Two-dimensional MoS ₂ for Li-S Batteries: Structural Design and Electronic Modulation. ChemSusChem, 2020, 13, 1392-1408.	6.8	31
74	Fluorine Triggered Surface and Lattice Regulation in Anatase TiO ₂ Nanocrystals for Ultrafast Pseudocapacitive Sodium Storage. Small, 2020, 16, e2006366.	10.0	31
75	Interfacial competition between a borophene-based cathode and electrolyte for the multiple-sulfide immobilization of a lithium sulfur battery. Journal of Materials Chemistry A, 2019, 7, 7092-7098.	10.3	30
76	Ternary cobalt-iron sulfide as a robust electrocatalyst for water oxidation: A dual effect from surface evolution and metal doping. Applied Surface Science, 2021, 542, 148681.	6.1	28
77	Acid Treatment Enables Suppression of Electron-Hole Recombination in Hematite for Photoelectrochemical Water Splitting. Angewandte Chemie, 2016, 128, 3464-3468.	2.0	27
78	Pb Single Atoms Enable Unprecedented Catalytic Behavior for the Combustion of Energetic Materials. Advanced Science, 2021, 8, 2002889.	11.2	27
79	Supramolecular Modulation of Molecular Conformation of Metal Porphyrins toward Remarkably Enhanced Multipurpose Electrocatalysis and Ultrahigh-Performance Zinc-Air Batteries. Advanced Energy Materials, 2021, 11, 2102062.	19.5	27
80	Reversing the Nucleophilicity of Active Sites in CoP ₂ Enables Exceptional Hydrogen Evolution Catalysis. Small, 2022, 18, e2106870.	10.0	27
81	Review of the I ² /I ³ redox chemistry in Zn-iodine redox flow batteries. Materials Research Bulletin, 2021, 141, 111347.	5.2	24
82	Orbital-regulated interfacial electronic coupling endows Ni ₃ N with superior catalytic surface for hydrogen evolution reaction. Science China Chemistry, 2020, 63, 1563-1569.	8.2	22
83	Tuning the Interaction between Ruthenium Single Atoms and the Second Coordination Sphere for Efficient Nitrogen Photofixation. Advanced Functional Materials, 2022, 32, .	14.9	22
84	The Effect of the Hydrogenation Temperature on TiO ₂ Nanostructures for Photoelectrochemical Water Oxidation. European Journal of Inorganic Chemistry, 2014, 2014, 760-766.	2.0	21
85	Phosphorus incorporation activates the basal plane of tungsten disulfide for efficient hydrogen evolution catalysis. Nano Research, 2022, 15, 2855-2861.	10.4	21
86	Hierarchical Ion/Electron Networks Enable Efficient Red Phosphorus Anode with High Mass Loading for Sodium Ion Batteries. Advanced Functional Materials, 2022, 32, .	14.9	21
87	Constructing Reactive Micro-Environment in Basal Plane of MoS ₂ for pH-Universal Hydrogen Evolution Catalysis. Small, 2022, 18, .	10.0	21
88	Gate-Induced Insulator to Band-Like Transport Transition in Organolead Halide Perovskite. Journal of Physical Chemistry Letters, 2017, 8, 429-434.	4.6	20
89	Applications of MoS ₂ in Li-O ₂ Batteries: Development and Challenges. Energy & Fuels, 2021, 35, 5613-5626.	5.1	20
90	Support Amorphization Engineering Regulates Single-Atom Ru as an Electron Pump for Nitrogen Photofixation. ACS Catalysis, 2022, 12, 8139-8146.	11.2	20

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91	Cu ₂ O-Ag Tandem Catalysts for Selective Electrochemical Reduction of CO ₂ to C ₂ Products. <i>Molecules</i> , 2021, 26, 2175.	3.8	19
92	Regulating the adsorption behavior of intermediates on Ir@WO ₃ boosts acidic water oxidation electrocatalysis. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6092-6100.	5.9	17
93	Accelerating water dissociation kinetics of Ni ₃ N by tuning interfacial orbital coupling. <i>Nano Research</i> , 2021, 14, 3458-3465.	10.4	16
94	Superior surface electron energy level endows WP2 nanowire arrays with N ₂ fixation functions. <i>Journal of Energy Chemistry</i> , 2021, 59, 55-62.	12.9	14
95	Atomic Disorder Enables Superior Catalytic Surface of Pt-Based Catalysts for Alkaline Hydrogen Evolution. , 2021, 3, 1738-1745.		13
96	Tailoring the Electrochemical Protonation Behavior of CO ₂ by Tuning Surface Noncovalent Interactions. <i>ACS Catalysis</i> , 2021, 11, 14986-14994.	11.2	13
97	Short-range order in amorphous nickel oxide nanosheets enables selective and efficient electrochemical hydrogen peroxide production. <i>Cell Reports Physical Science</i> , 2022, 3, 100788.	5.6	12
98	Porous TiNb ₂ O ₇ @N-C as Anode Materials for Lithium-Ion Batteries with Ultrahigh-Rate Performance. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23960-23967.	3.1	11
99	Nickel Catalyst Boosts Solar Hydrogen Generation of CdSe Nanocrystals. <i>ChemCatChem</i> , 2013, 5, 1294-1295.	3.7	9
100	Three-Dimensional Carbon-Supported MoS ₂ With Sulfur Defects as Oxygen Electrodes for Li-O ₂ Batteries. <i>Frontiers in Energy Research</i> , 2020, 8, .	2.3	9
101	Regulating the electron filling state of d orbitals in Ta-based compounds for tunable lithium-sulfur chemistry. <i>Sustainable Materials and Technologies</i> , 2021, 28, e00271.	3.3	8
102	Phosphorene: a Potential 2D Material for Highly Efficient Polysulfide Trapping and Conversion. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 631-639.	2.6	6
103	Ultrafast Charge Carrier Dynamics and Photoelectrochemical Properties of Hydrogen-treated TiO ₂ Nanowire Arrays. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1387, 1.	0.1	5
104	Constructing Complementary Catalytic Components on Co ₄ N Nanowires to Achieve Efficient Hydrogen Evolution Catalysis. <i>Advanced Energy and Sustainability Research</i> , 0, , 2100219.	5.8	5
105	Single-atom catalyst cathodes for lithium-oxygen batteries: a review. <i>Nano Futures</i> , 2022, 6, 012002.	2.2	4
106	Water Splitting: Boosting Water Dissociation Kinetics on Pt-Ni Nanowires by Na-Induced Orbital Tuning (<i>Adv. Mater.</i> 16/2019). <i>Advanced Materials</i> , 2019, 31, 1970116.	21.0	1
107	Electronic surface reconstruction of TiO ₂ nanocrystals revealed by resonant inelastic x-ray scattering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	2.1	1
108	Supramolecular Modulation of Molecular Conformation of Metal Porphyrins toward Remarkably Enhanced Multipurpose Electrocatalysis and Ultrahigh Performance Zinc-Air Batteries (<i>Adv. Energy</i>) Tj ETQq0 0.5gBT /Overlock 10		

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109	Hydrogen-Treated TiO ₂ Nanowires for Charge Storage and Photoelectrochemical Water Splitting. , 2017, , 189-213.		0
110	SURFACE ENGINEERING OF SEMICONDUCTORS FOR PHOTOELECTROCHEMICAL WATER SPLITTING. , 2018, , 223-249.		0
111	Two-Dimensional Transition Metal Chalcogenides for Hydrogen Evolution Catalysis. , 2021, , 3075-3101.		0
112	Two-Dimensional Transition Metal Chalcogenides for Hydrogen Evolution Catalysis. , 2020, , 1-28.		0
113	Tuning the Interaction between Ruthenium Single Atoms and the Second Coordination Sphere for Efficient Nitrogen Photofixation (Adv. Funct. Mater. 12/2022). Advanced Functional Materials, 2022, 32, .	14.9	0
114	Polydimethylsiloxane functionalized separator for a stable and fast lithium metal anode. CrystEngComm, 0, , .	2.6	0