Gongming Wang

List of Publications by Citations

112 papers	21,004 citations	64 h-index	116 g-index
116 ext. papers	23,211 ext. citations	13.5 avg, IF	6.91 L-index

#	Paper	IF	Citations
112	Hydrogen-treated TiO2 nanowire arrays for photoelectrochemical water splitting. *Nano Letters*, **2011**, 11, 3026-33	11.5	2101
111	Hydrogenated TiO2 nanotube arrays for supercapacitors. *Nano Letters*, **2012**, 12, 1690-6	11.5	1113
110	Flexible solid-state supercapacitors: design, fabrication and applications. *Energy and Environmental Science*, **2014**, 7, 2160	35.4	985
109	Nitrogen-doped ZnO nanowire arrays for photoelectrochemical water splitting. *Nano Letters*, **2009**, 9, 2331-6	11.5	967
108	Sn-doped hematite nanostructures for photoelectrochemical water splitting. *Nano Letters*, **2011**, 11, 2119-25	11.5	882
107	H-TiO(2) @MnO(2) //H-TiO(2) @C core-shell nanowires for high performance and flexible asymmetric supercapacitors. *Advanced Materials*, **2013**, 25, 267-72	24	828
106	Au nanostructure-decorated TiO2 nanowires exhibiting photoactivity across entire UV-visible region for photoelectrochemical water splitting. *Nano Letters*, **2013**, 13, 3817-23	11.5	725
105	High energy density asymmetric quasi-solid-state supercapacitor based on porous vanadium nitride nanowire anode. *Nano Letters*, **2013**, 13, 2628-33	11.5	622
104	Stabilized TiN nanowire arrays for high-performance and flexible supercapacitors. *Nano Letters*, **2012**, 12, 5376-81	11.5	563
103	Hydrogen-treated WO3 nanoflakes show enhanced photostability. *Energy and Environmental Science*, **2012**, 5, 6180	35.4	559
102	Facile synthesis of highly photoactive □Fe□□based films for water oxidation. *Nano Letters*, **2011**, 11, 3503-9	11.5	556
101	Solid-state supercapacitor based on activated carbon cloths exhibits excellent rate capability. *Advanced Materials*, **2014**, 26, 2676-82, 2615	24	555
100	Double-sided CdS and CdSe quantum dot co-sensitized ZnO nanowire arrays for photoelectrochemical hydrogen generation. *Nano Letters*, **2010**, 10, 1088-92	11.5	549
99	Tailoring the d-Band Centers Enables Co N Nanosheets To Be Highly Active for Hydrogen Evolution Catalysis. *Angewandte Chemie - International Edition*, **2018**, 57, 5076-5080	16.4	449
98	Synergistic effect of CdSe quantum dot sensitization and nitrogen doping of TiO(2) nanostructures for photoelectrochemical solar hydrogen generation. *Nano Letters*, **2010**, 10, 478-83	11.5	435
97	Nanostructured hematite: synthesis, characterization, charge carrier dynamics, and photoelectrochemical properties. *Energy and Environmental Science*, **2012**, 5, 6682	35.4	434
96	Oxygen-deficient metal oxide nanostructures for photoelectrochemical water oxidation and other applications. *Nanoscale*, **2012**, 4, 6682-91	7.7	306

95	Progress in Developing Metal Oxide Nanomaterials for Photoelectrochemical Water Splitting. *Advanced Energy Materials*, **2017**, 7, 1700555	21.8	291
94	A new benchmark capacitance for supercapacitor anodes by mixed-valence sulfur-doped V6O(13-x). *Advanced Materials*, **2014**, 26, 5869-75	24	276
93	The influence of oxygen content on the thermal activation of hematite nanowires. *Angewandte Chemie - International Edition*, **2012**, 51, 4074-9	16.4	274
92	Microbial reduction of graphene oxide by Shewanella. *Nano Research*, **2011**, 4, 563-570	10	274
91	LiCl/PVA gel electrolyte stabilizes vanadium oxide nanowire electrodes for pseudocapacitors. *ACS Nano*, **2012**, 6, 10296-302	16.7	271
90	Electron density modulation of NiCoS nanowires by nitrogen incorporation for highly efficient hydrogen evolution catalysis. *Nature Communications*, **2018**, 9, 1425	17.4	266
89	Phase and Interface Engineering of Platinum-Nickel Nanowires for Efficient Electrochemical Hydrogen Evolution. *Angewandte Chemie - International Edition*, **2016**, 55, 12859-63	16.4	247
88	Deciphering the Modulation Essence of p Bands in Co-Based Compounds on Li-S Chemistry. *Joule*, **2018**, 2, 2681-2693	27.8	241
87	Wafer-scale growth of large arrays of perovskite microplate crystals for functional electronics and optoelectronics. *Science Advances*, **2015**, 1, e1500613	14.3	226
86	High energy density asymmetric supercapacitors with a nickel oxide nanoflake cathode and a 3D reduced graphene oxide anode. *Nanoscale*, **2013**, 5, 7984-90	7.7	223
85	Efficient photocatalytic hydrogen evolution over hydrogenated ZnO nanorod arrays. *Chemical Communications*, **2012**, 48, 7717-9	5.8	221
84	Tuning orbital orientation endows molybdenum disulfide with exceptional alkaline hydrogen evolution capability. *Nature Communications*, **2019**, 10, 1217	17.4	218
83	Free-standing nickel oxide nanoflake arrays: synthesis and application for highly sensitive non-enzymatic glucose sensors. *Nanoscale*, **2012**, 4, 3123-7	7.7	213
82	Oxygen defective metal oxides for energy conversion and storage. *Nano Today*, **2017**, 13, 23-39	17.9	204
81	Improving the Cycling Stability of Metal Nitride Supercapacitor Electrodes with a Thin Carbon Shell. *Advanced Energy Materials*, **2014**, 4, 1300994	21.8	188
80	Computational and Photoelectrochemical Study of Hydrogenated Bismuth Vanadate. *Journal of Physical Chemistry C*, **2013**, 117, 10957-10964	3.8	185
79	Efficient Suppression of Electron-Hole Recombination in Oxygen-Deficient Hydrogen-Treated TiO Nanowires for Photoelectrochemical Water Splitting. *Journal of Physical Chemistry C*, **2013**, 117, 25837-25844	3.8	181
78	Solar-driven microbial photoelectrochemical cells with a nanowire photocathode. *Nano Letters*, **2010**, 10, 4686-91	11.5	180

77	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	24	175
76	Size-dependent phase transition in methylammonium lead iodide perovskite microplate crystals. *Nature Communications*, **2016**, 7, 11330	17.4	173
75	van der Waals Heterojunction Devices Based on Organohalide Perovskites and Two-Dimensional Materials. *Nano Letters*, **2016**, 16, 367-73	11.5	163
74	Achieving Insertion-Like Capacity at Ultrahigh Rate via Tunable Surface Pseudocapacitance. *Advanced Materials*, **2018**, 30, e1706640	24	154
73	Three-dimensional graphene framework with ultra-high sulfur content for a robust lithium–sulfur battery. *Nano Research*, **2016**, 9, 240-248	10	147
72	A mechanistic study into the catalytic effect of Ni(OH)2 on hematite for photoelectrochemical water oxidation. *Nanoscale*, **2013**, 5, 4129-33	7.7	145
71	Layer-by-Layer Degradation of Methylammonium Lead Tri-iodide Perovskite Microplates. *Joule*, **2017**, 1, 548-562	27.8	142
70	Significantly Enhanced Visible Light Photoelectrochemical Activity in TiO□Nanowire Arrays by Nitrogen Implantation. *Nano Letters*, **2015**, 15, 4692-8	11.5	138
69	Chemically modified nanostructures for photoelectrochemical water splitting. *Journal of Photochemistry and Photobiology C: Photochemistry Reviews*, **2014**, 19, 35-51	16.4	130
68	N-induced lattice contraction generally boosts the hydrogen evolution catalysis of P-rich metal phosphides. *Science Advances*, **2020**, 6, eaaw8113	14.3	116
67	Boosting Water Dissociation Kinetics on Pt-Ni Nanowires by N-Induced Orbital Tuning. *Advanced Materials*, **2019**, 31, e1807780	24	113
66	Solar driven hydrogen releasing from urea and human urine. *Energy and Environmental Science*, **2012**, 5, 8215	35.4	112
65	Acid Treatment Enables Suppression of Electron-Hole Recombination in Hematite for Photoelectrochemical Water Splitting. *Angewandte Chemie - International Edition*, **2016**, 55, 3403-7	16.4	107
64	Omnidirectional enhancement of photocatalytic hydrogen evolution over hierarchical □auline leaf□ nanoarchitectures. *Applied Catalysis B: Environmental*, **2016**, 186, 88-96	21.8	104
63	Self-Standing Hierarchical P/CNTs@rGO with Unprecedented Capacity and Stability for Lithium and Sodium Storage. *CheM*, **2018**, 4, 372-385	16.2	103
62	Tailoring the d-Band Centers Enables Co4N Nanosheets To Be Highly Active for Hydrogen Evolution Catalysis. *Angewandte Chemie*, **2018**, 130, 5170-5174	3.6	102
61	Photoelectrochemical study of oxygen deficient TiO2 nanowire arrays with CdS quantum dot sensitization. *Nanoscale*, **2012**, 4, 1463-6	7.7	101
60	An Electrochemical Capacitor with Applicable Energy Density of 7.4 Wh/kg at Average Power Density of 3000 W/kg. *Nano Letters*, **2015**, 15, 3189-94	11.5	100

59	Manipulating the Redox Kinetics of Li‐S Chemistry by Tellurium Doping for Improved Li‐S Batteries. *ACS Energy Letters*, **2018**, 3, 420-427	20.1	94
58	Photoenhanced electrochemical interaction between Shewanella and a hematite nanowire photoanode. *Nano Letters*, **2014**, 14, 3688-93	11.5	94
57	Enhanced capacitance in partially exfoliated multi-walled carbon nanotubes. *Journal of Power Sources*, **2011**, 196, 5209-5214	8.9	94
56	Electronic and Ionic Transport Dynamics in Organolead Halide Perovskites. *ACS Nano*, **2016**, 10, 6933-41	16.7	91
55	An electrochemical method to enhance the performance of metal oxides for photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2016**, 4, 2849-2855	13	88
54	The Influence of Oxygen Content on the Thermal Activation of Hematite Nanowires. *Angewandte Chemie*, **2012**, 124, 4150-4155	3.6	87
53	The Effect of Thermal Annealing on Charge Transport in Organolead Halide Perovskite Microplate Field-Effect Transistors. *Advanced Materials*, **2017**, 29, 1601959	24	81
52	CdSe quantum dot-sensitized Au/TiO2 hybrid mesoporous films and their enhanced photoelectrochemical performance. *Nano Research*, **2011**, 4, 249-258	10	78
51	Synthesis of Stable Shape-Controlled Catalytically Active Palladium Hydride. *Journal of the American Chemical Society*, **2015**, 137, 15672-5	16.4	75
50	Self-biased solar-microbial device for sustainable hydrogen generation. *ACS Nano*, **2013**, 7, 8728-35	16.7	74
49	Deciphering the electron transport pathway for graphene oxide reduction by Shewanella oneidensis MR-1. *Journal of Bacteriology*, **2011**, 193, 3662-5	3.5	65
48	Low-temperature activation of hematite nanowires for photoelectrochemical water oxidation. *ChemSusChem*, **2014**, 7, 848-53	8.3	61
47	Manipulating the water dissociation kinetics of Ni3N nanosheets via in situ interfacial engineering. *Journal of Materials Chemistry A*, **2019**, 7, 10924-10929	13	60
46	The Midas Touch Transformation of TiO2 Nanowire Arrays during Visible Light Photoelectrochemical Performance by Carbon/Nitrogen Coimplantation. *Advanced Energy Materials*, **2018**, 8, 1800165	21.8	60
45	Hexagonal Boron Nitride as a Multifunctional Support for Engineering Efficient Electrocatalysts toward the Oxygen Reduction Reaction. *Nano Letters*, **2020**, 20, 6807-6814	11.5	50
44	Regulating the Interfacial Electronic Coupling of Fe N via Orbital Steering for Hydrogen Evolution Catalysis. *Advanced Materials*, **2020**, 32, e1904346	24	48
43	Photohole Induced Corrosion of Titanium Dioxide: Mechanism and Solutions. *Nano Letters*, **2015**, 15, 7051-7	11.5	46
42	Fully integrated hierarchical double-shelled CoS@CNT nanostructures with unprecedented performance for Li-S batteries. *Nanoscale Horizons*, **2019**, 4, 182-189	10.8	46

41	An on-chip electrical transport spectroscopy approach for in situ monitoring electrochemical interfaces. *Nature Communications*, **2015**, 6, 7867	17.4	44
40	Light-directed electrophoretic deposition: a new additive manufacturing technique for arbitrarily patterned 3D composites. *Advanced Materials*, **2014**, 26, 2252-6	24	44
39	Ultrasmall Single-Crystal Indium Antimonide Nanowires. *Crystal Growth and Design*, **2010**, 10, 2479-2482	3.5	43
38	Nanoelectronic Investigation Reveals the Electrochemical Basis of Electrical Conductivity in Shewanella and Geobacter. *ACS Nano*, **2016**, 10, 9919-9926	16.7	34
37	Two-dimensional MOS2 for hydrogen evolution reaction catalysis: The electronic structure regulation. *Nano Research*, **2021**, 14, 1985-2002	10	32
36	Reduced graphene oxide/silicon nanowire heterostructures with enhanced photoactivity and superior photoelectrochemical stability. *Nano Research*, **2015**, 8, 2850-2858	10	29
35	Obviously Angular, Cuboid-Shaped TiO2 Nanowire Arrays Decorated with Ag Nanoparticle as Ultrasensitive 3D Surface-Enhanced Raman Scattering Substrates. *Journal of Physical Chemistry C*, **2014**, 118, 22711-22718	3.8	28
34	Amorphization-induced surface electronic states modulation of cobaltous oxide nanosheets for lithium-sulfur batteries. *Nature Communications*, **2021**, 12, 3102	17.4	24
33	Acid Treatment Enables Suppression of Electron□Hole Recombination in Hematite for Photoelectrochemical Water Splitting. *Angewandte Chemie*, **2016**, 128, 3464-3468	3.6	24
32	High-Spin Sulfur-Mediated Phosphorous Activation Enables Safe and Fast Phosphorus Anodes for Sodium-Ion Batteries. *CheM*, **2020**, 6, 221-233	16.2	23
31	Growth of gallium nitride and indium nitride nanowires on conductive and flexible carbon cloth substrates. *Nanoscale*, **2013**, 5, 1820-4	7.7	21
30	Gate-Induced Insulator to Band-Like Transport Transition in Organolead Halide Perovskite. *Journal of Physical Chemistry Letters*, **2017**, 8, 429-434	6.4	20
29	The Effect of the Hydrogenation Temperature on TiO2 Nanostructures for Photoelectrochemical Water Oxidation. *European Journal of Inorganic Chemistry*, **2014**, 2014, 760-766	2.3	20
28	Chemically modified titanium oxide nanostructures for dye-sensitized solar cells. *Nano Energy*, **2013**, 2, 1373-1382	17.1	19
27	Molecular ligand modulation of palladium nanocatalysts for highly efficient and robust heterogeneous oxidation of cyclohexenone to phenol. *Science Advances*, **2017**, 3, e1600615	14.3	18
26	Highly Sensitive Chemical Detection with Tunable Sensitivity and Selectivity from Ultrathin Platinum Nanowires. *Small*, **2017**, 13, 1602969	11	14
25	Two-Dimensional MoS for Li-S Batteries: Structural Design and Electronic Modulation. *ChemSusChem*, **2020**, 13, 1392-1408	8.3	13
24	Oxygen vacancies enable the visible light photoactivity of chromium-implanted TiO2 nanowires. *Journal of Energy Chemistry*, **2021**, 55, 154-161	12	13

23	Nitrogen doped FeS2 nanoparticles for efficient and stable hydrogen evolution reaction. *Journal of Energy Chemistry*, **2021**, 56, 283-289	12	12
22	Dual-Metal Sites Boosting Polarization of Nitrogen Molecules for Efficient Nitrogen Photofixation. *Advanced Science*, **2021**, 8, 2100302	13.6	11
21	Orbital-regulated interfacial electronic coupling endows Ni3N with superior catalytic surface for hydrogen evolution reaction. *Science China Chemistry*, **2020**, 63, 1563-1569	7.9	10
20	Nickel Catalyst Boosts Solar Hydrogen Generation of CdSe Nanocrystals. *ChemCatChem*, **2013**, 5, 1294-1295	3.8	9
19	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	6.7	9
18	Applications of MoS2 in Li□O2 Batteries: Development and Challenges. *Energy & Fuels*, **2021**, 35, 5613-5626	4.1	8
17	Accelerating water dissociation kinetics of Ni3N by tuning interfacial orbital coupling. *Nano Research*, **2021**, 14, 3458-3465	10	6
16	Regulating the adsorption behavior of intermediates on Ir□V@Ir□WO3□ boosts acidic water oxidation electrocatalysis. *Materials Chemistry Frontiers*, **2021**, 5, 6092-6100	7.8	6
15	Phosphorene: a Potential 2D Material for Highly Efficient Polysulfide Trapping and Conversion. *Chemical Research in Chinese Universities*, **2020**, 36, 631-639	2.2	5
14	Reversing the Nucleophilicity of Active Sites in CoP Enables Exceptional Hydrogen Evolution Catalysis.. *Small*, **2022**, e2106870	11	5
13	Low-Cost Nanomaterials for Photoelectrochemical Water Splitting. *Green Energy and Technology*, **2014**, 267-295	0.6	4
12	Ultrafast Charge Carrier Dynamics and Photoelectrochemical Properties of Hydrogen-treated TiO2 Nanowire Arrays. *Materials Research Society Symposia Proceedings*, **2012**, 1387, 1		4
11	Hierarchical Ion/Electron Networks Enable Efficient Red Phosphorus Anode with High Mass Loading for Sodium Ion Batteries. *Advanced Functional Materials*,2110444	15.6	4
10	Phosphorus incorporation activates the basal plane of tungsten disulfide for efficient hydrogen evolution catalysis. *Nano Research*,1	10	4
9	Interfacial synergies between single-atomic Pt and CoS for enhancing hydrogen evolution reaction catalysis. *Applied Catalysis B: Environmental*, **2022**, 315, 121534	21.8	4
8	Tuning the Interaction between Ruthenium Single Atoms and the Second Coordination Sphere for Efficient Nitrogen Photofixation. *Advanced Functional Materials*,2112452	15.6	3
7	Regulating the electron filling state of d orbitals in Ta-based compounds for tunable lithium-sulfur chemistry. *Sustainable Materials and Technologies*, **2021**, 28, e00271	5.3	3
6	Constructing Reactive Micro-Environment in Basal Plane of MoS 2 for pH-Universal Hydrogen Evolution Catalysis. *Small*,2107974	11	2

5	Superior surface electron energy level endows WP2 nanowire arrays with N2 fixation functions. *Journal of Energy Chemistry*, **2021**, 59, 55-62	12	1
4	Two-Dimensional Transition Metal Chalcogenides for Hydrogen Evolution Catalysis **2020**, 1-28		
3	Two-Dimensional Transition Metal Chalcogenides for Hydrogen Evolution Catalysis **2021**, 3075-3101		
2	SURFACE ENGINEERING OF SEMICONDUCTORS FOR PHOTOELECTROCHEMICAL WATER SPLITTING **2018**, 223-249		
1	Electronic surface reconstruction of TiO2 nanocrystals revealed by resonant inelastic x-ray scattering. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 063204	2.9	