Shuangming Chen

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Oxide Defect Engineering Enables to Couple Solar Energy into Oxygen Activation. Journal of the American Chemical Society, 2016, 138, 8928-8935.	13.7	840
2	Atomically dispersed platinum supported on curved carbon supports for efficient electrocatalytic hydrogen evolution. Nature Energy, 2019, 4, 512-518.	39.5	756
3	Refining Defect States in W ₁₈ O ₄₉ by Mo Doping: A Strategy for Tuning N ₂ Activation towards Solar-Driven Nitrogen Fixation. Journal of the American Chemical Society, 2018, 140, 9434-9443.	13.7	722
4	Isolation of Cu Atoms in Pd Lattice: Forming Highly Selective Sites for Photocatalytic Conversion of CO ₂ to CH ₄ . Journal of the American Chemical Society, 2017, 139, 4486-4492.	13.7	455
5	Amorphous Metallic NiFeP: A Conductive Bulk Material Achieving High Activity for Oxygen Evolution Reaction in Both Alkaline and Acidic Media. Advanced Materials, 2017, 29, 1606570.	21.0	441
6	Systematic design of superaerophobic nanotube-array electrode comprised of transition-metal sulfides for overall water splitting. Nature Communications, 2018, 9, 2452.	12.8	431
7	Heterogeneous Singleâ€Atom Catalyst for Visibleâ€Lightâ€Driven Highâ€Turnover CO ₂ Reduction: The Role of Electron Transfer. Advanced Materials, 2018, 30, e1704624.	21.0	383
8	Heteroatomâ€Mediated Interactions between Ruthenium Single Atoms and an MXene Support for Efficient Hydrogen Evolution. Advanced Materials, 2019, 31, e1903841.	21.0	363
9	Charge-Redistribution-Enhanced Nanocrystalline Ru@IrOx Electrocatalysts for Oxygen Evolution in Acidic Media. CheM, 2019, 5, 445-459.	11.7	354
10	Precisely Tuning the Number of Fe Atoms in Clusters on N-Doped Carbon toward Acidic Oxygen Reduction Reaction. CheM, 2019, 5, 2865-2878.	11.7	346
11	Isolated single atom cobalt in Bi3O4Br atomic layers to trigger efficient CO2 photoreduction. Nature Communications, 2019, 10, 2840.	12.8	327
12	Heteroatom-Doped Transition Metal Electrocatalysts for Hydrogen Evolution Reaction. ACS Energy Letters, 2019, 4, 805-810.	17.4	323
13	Electronic Structure Reconfiguration toward Pyrite NiS ₂ <i>via</i> Engineered Heteroatom Defect Boosting Overall Water Splitting. ACS Nano, 2017, 11, 11574-11583.	14.6	310
14	Pyrazolate-Based Porphyrinic Metal–Organic Framework with Extraordinary Base-Resistance. Journal of the American Chemical Society, 2016, 138, 914-919.	13.7	303
15	Short-Range Ordered Iridium Single Atoms Integrated into Cobalt Oxide Spinel Structure for Highly Efficient Electrocatalytic Water Oxidation. Journal of the American Chemical Society, 2021, 143, 5201-5211.	13.7	287
16	Amorphous nickel-cobalt complexes hybridized with 1T-phase molybdenum disulfide via hydrazine-induced phase transformation for water splitting. Nature Communications, 2017, 8, 15377.	12.8	284
17	Frameworkâ€Porphyrinâ€Đerived Singleâ€Atom Bifunctional Oxygen Electrocatalysts and their Applications in Zn–Air Batteries. Advanced Materials, 2019, 31, e1900592.	21.0	256
18	Atomic Iridium Incorporated in Cobalt Hydroxide for Efficient Oxygen Evolution Catalysis in Neutral Electrolyte, Advanced Materials, 2018, 30, e1707522,	21.0	247

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19	Lithiation-induced amorphization of Pd3P2S8 for highly efficient hydrogen evolution. Nature Catalysis, 2018, 1, 460-468.	34.4	247
20	Surface Plasmon Enabling Nitrogen Fixation in Pure Water through a Dissociative Mechanism under Mild Conditions. Journal of the American Chemical Society, 2019, 141, 7807-7814.	13.7	235
21	2D heterostructure comprised of metallic 1T-MoS2/Monolayer O-g-C3N4 towards efficient photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 220, 379-385.	20.2	231
22	Tracking Structural Selfâ€Reconstruction and Identifying True Active Sites toward Cobalt Oxychloride Precatalyst of Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1805127.	21.0	211
23	Atomic Cobalt Covalently Engineered Interlayers for Superior Lithiumâ€lon Storage. Advanced Materials, 2018, 30, e1802525.	21.0	187
24	Nonâ€metal Singleâ€lodineâ€Atom Electrocatalysts for the Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 12252-12257.	13.8	175
25	Vertical 1T-MoS ₂ nanosheets with expanded interlayer spacing edged on a graphene frame for high rate lithium-ion batteries. Nanoscale, 2017, 9, 6975-6983.	5.6	158
26	Pd-Modified ZnO–Au Enabling Alkoxy Intermediates Formation and Dehydrogenation for Photocatalytic Conversion of Methane to Ethylene. Journal of the American Chemical Society, 2021, 143, 269-278.	13.7	151
27	Hydrogen-Intercalation-Induced Lattice Expansion of Pd@Pt Core–Shell Nanoparticles for Highly Efficient Electrocatalytic Alcohol Oxidation. Journal of the American Chemical Society, 2021, 143, 11262-11270.	13.7	121
28	CdPS ₃ nanosheets-based membrane with high proton conductivity enabled by Cd vacancies. Science, 2020, 370, 596-600.	12.6	120
29	Defect engineering on V2O3 cathode for long-cycling aqueous zinc metal batteries. Nature Communications, 2021, 12, 6878.	12.8	118
30	Cobalt nitride as a novel cocatalyst to boost photocatalytic CO2 reduction. Nano Energy, 2021, 79, 105429.	16.0	117
31	In situ trapped high-density single metal atoms within graphene: Iron-containing hybrids as representatives for efficient oxygen reduction. Nano Research, 2018, 11, 2217-2228.	10.4	108
32	Synergic Reaction Kinetics over Adjacent Ruthenium Sites for Superb Hydrogen Generation in Alkaline Media. Advanced Materials, 2022, 34, e2110604.	21.0	108
33	Atomic Sn ⁴⁺ Decorated into Vanadium Carbide MXene Interlayers for Superior Lithium Storage. Advanced Energy Materials, 2019, 9, 1802977.	19.5	103
34	Zirconium–Porphyrinâ€Based Metal–Organic Framework Hollow Nanotubes for Immobilization of Nobleâ€Metal Single Atoms. Angewandte Chemie, 2018, 130, 3551-3556.	2.0	102
35	Atomic Vacancies Control of Pdâ€Based Catalysts for Enhanced Electrochemical Performance. Advanced Materials, 2018, 30, 1704171.	21.0	102
36	Nickel Diselenide Ultrathin Nanowires Decorated with Amorphous Nickel Oxide Nanoparticles for Enhanced Water Splitting Electrocatalysis. Small, 2017, 13, 1701487.	10.0	99

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37	Inâ€situ Integration of a Metallic 1Tâ€MoS ₂ /CdS Heterostructure as a Means to Promote Visibleâ€Lightâ€Driven Photocatalytic Hydrogen Evolution. ChemCatChem, 2016, 8, 2614-2619.	3.7	98
38	Tuning 2D MXenes by Surface Controlling and Interlayer Engineering: Methods, Properties, and Synchrotron Radiation Characterizations. Advanced Functional Materials, 2020, 30, 2000869.	14.9	98
39	Pt4PdCu0.4 alloy nanoframes as highly efficient and robust bifunctional electrocatalysts for oxygen reduction reaction and formic acid oxidation. Nano Energy, 2017, 39, 532-538.	16.0	97
40	Delaminating Vanadium Carbides for Zincâ€lon Storage: Hydrate Precipitation and H ⁺ /Zn ²⁺ Coâ€Action Mechanism. Small Methods, 2019, 3, 1900495.	8.6	97
41	Hydriding Pd cocatalysts: An approach to giant enhancement on photocatalytic CO2 reduction into CH4. Nano Research, 2017, 10, 3396-3406.	10.4	95
42	Atomic Ru Immobilized on Porous h-BN through Simple Vacuum Filtration for Highly Active and Selective CO ₂ Methanation. ACS Catalysis, 2019, 9, 10077-10086.	11.2	93
43	<i>Operando</i> X-ray spectroscopy visualizing the chameleon-like structural reconstruction on an oxygen evolution electrocatalyst. Energy and Environmental Science, 2021, 14, 906-915.	30.8	93
44	Dial the Mechanism Switch of VN from Conversion to Intercalation toward Long Cycling Sodiumâ€ion Battery. Advanced Energy Materials, 2020, 10, 1903712.	19.5	92
45	Strain-Engineering of Bi ₁₂ O ₁₇ Br ₂ Nanotubes for Boosting Photocatalytic CO ₂ Reduction. , 2020, 2, 1025-1032.		82
46	Atomic-level molybdenum oxide nanorings with full-spectrum absorption and photoresponsive properties. Nature Communications, 2017, 8, 1559.	12.8	81
47	Nanoscale TiO2 membrane coating spinel LiNi0.5Mn1.5O4 cathode material for advanced lithium-ion batteries. Journal of Alloys and Compounds, 2017, 705, 413-419.	5.5	79
48	HClâ€Based Hydrothermal Etching Strategy toward Fluorideâ€Free MXenes. Advanced Materials, 2021, 33, e2101015.	21.0	79
49	Crystallographic-plane tuned Prussian-blue wrapped with RGO: a high-capacity, long-life cathode for sodium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 3569-3577.	10.3	75
50	Engineering the In-Plane Structure of Metallic Phase Molybdenum Disulfide <i>via</i> Co and O Dopants toward Efficient Alkaline Hydrogen Evolution. ACS Nano, 2019, 13, 11733-11740.	14.6	75
51	Ultrathin Amorphous/Crystalline Heterophase Rh and Rh Alloy Nanosheets as Tandem Catalysts for Direct Indole Synthesis. Advanced Materials, 2021, 33, e2006711.	21.0	68
52	Depressed transition temperature of W _x V _{1â^'x} O ₂ : mechanistic insights from the X-ray absorption fine structure (XAFS) spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 17705.	2.8	66
53	Atomic-Level Insights into the Edge Active ReS ₂ Ultrathin Nanosheets for High-Efficiency Light-to-Hydrogen Conversion. , 2020, 2, 1484-1494.		65
54	Evoking ordered vacancies in metallic nanostructures toward a vacated Barlow packing for high-performance hydrogen evolution. Science Advances, 2021, 7, .	10.3	64

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55	Defective Tungsten Oxide Hydrate Nanosheets for Boosting Aerobic Coupling of Amines: Synergistic Catalysis by Oxygen Vacancies and BrĄ̃,nsted Acid Sites. Small, 2017, 13, 1701354.	10.0	62
56	Hierarchical 1T-MoS ₂ nanotubular structures for enhanced supercapacitive performance. Journal of Materials Chemistry A, 2017, 5, 23704-23711.	10.3	61
57	Polyoxometalate Clusterâ€Incorporated Metalâ€Organic Framework Hierarchical Nanotubes. Small, 2016, 12, 2982-2990.	10.0	60
58	Hydrogenâ€Dopingâ€Induced Metalâ€Like Ultrahigh Freeâ€Carrier Concentration in Metalâ€Oxide Material for Giant and Tunable Plasmon Resonance. Advanced Materials, 2020, 32, e2004059.	21.0	57
59	Manganese buffer induced high-performance disordered MnVO cathodes in zinc batteries. Energy and Environmental Science, 2021, 14, 3954-3964.	30.8	57
60	Wellâ€Ðefined Cobalt Catalyst with Nâ€Ðoped Carbon Layers Enwrapping: The Correlation between Surface Atomic Structure and Electrocatalytic Property. Small, 2018, 14, 1702074.	10.0	56
61	Monoatomic Platinum-Anchored Metallic MoS ₂ : Correlation between Surface Dopant and Hydrogen Evolution. Journal of Physical Chemistry Letters, 2019, 10, 6081-6087.	4.6	53
62	Initial Reaction Mechanism of Platinum Nanoparticle in Methanol–Water System and the Anomalous Catalytic Effect of Water. Nano Letters, 2015, 15, 5961-5968.	9.1	52
63	Cation Distribution in ZnCr ₂ O ₄ Nanocrystals Investigated by X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 25019-25025.	3.1	48
64	Near-surface dilution of trace Pd atoms to facilitate Pd-H bond cleavage for giant enhancement of electrocatalytic hydrogen evolution. Nano Energy, 2017, 34, 306-312.	16.0	48
65	Electrochemical Nitrate Production <i>via</i> Nitrogen Oxidation with Atomically Dispersed Fe on N-Doped Carbon Nanosheets. ACS Nano, 2022, 16, 655-663.	14.6	44
66	Facile Synthesis of Hierarchical Cu ₂ MoS ₄ Hollow Sphere/Reduced Graphene Oxide Composites with Enhanced Photocatalytic Performance. Journal of Physical Chemistry C, 2016, 120, 13120-13125.	3.1	43
67	Co Nanoparticles Encapsulated in N-Doped Carbon Nanosheets: Enhancing Oxygen Reduction Catalysis without Metal–Nitrogen Bonding. ACS Applied Materials & Interfaces, 2017, 9, 38499-38506.	8.0	42
68	Amorphous nickel-iron oxides/carbon nanohybrids for an efficient and durable oxygen evolution reaction. Nano Research, 2017, 10, 3629-3637.	10.4	42
69	Cu2â^'xS derived copper nanoparticles: A platform for unraveling the role of surface reconstruction in efficient electrocatalytic CO2-to-C2H4 conversion. Nano Research, 2023, 16, 4494-4498.	10.4	42
70	Probing Lithium Storage Mechanism of MoO ₂ Nanoflowers with Rich Oxygen-Vacancy Grown on Graphene Sheets. Journal of Physical Chemistry C, 2017, 121, 15589-15596.	3.1	41
71	All-Carbon Ultrafast Supercapacitor by Integrating Multidimensional Nanocarbons. Small, 2016, 12, 5684-5691.	10.0	39
72	Atomically Intercalating Tin Ions into the Interlayer of Molybdenum Oxide Nanobelt toward Long-Cycling Lithium Battery. Journal of Physical Chemistry Letters, 2018, 9, 817-824.	4.6	39

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73	High-metallic-phase-concentration Mo1–xWxS2 nanosheets with expanded interlayers as efficient electrocatalysts. Nano Research, 2018, 11, 1687-1698.	10.4	37
74	In Situ Architecting Endogenous Heterojunction of MoS ₂ Coupling with Mo ₂ CT <i>_x</i> MXenes for Optimized Li ⁺ Storage. Advanced Materials, 2022, 34, e2108809.	21.0	33
75	Confining High-Valence Iridium Single Sites onto Nickel Oxyhydroxide for Robust Oxygen Evolution. Nano Letters, 2022, 22, 3832-3839.	9.1	33
76	A novel route to realize controllable phases in an aluminum (Al3+)-doped VO2 system and the metal–insulator transition modulation. Materials Letters, 2014, 127, 44-47.	2.6	30
77	Anomalous self-optimization of sulfate ions for boosted oxygen evolution reaction. Science Bulletin, 2021, 66, 553-561.	9.0	30
78	In situ growth of metallic 1T-WS2 nanoislands on single-walled carbon nanotube films for improved electrochemical performance. RSC Advances, 2016, 6, 87919-87925.	3.6	29
79	Transition from Semimetal to Semiconductor in ZrTe ₂ Induced by Se Substitution. ACS Nano, 2020, 14, 835-841.	14.6	29
80	Single-Atom Metal Anchored Zr ₆ -Cluster-Porphyrin Framework Hollow Nanocapsules with Ultrahigh Active-Center Density for Electrocatalytic CO ₂ Reduction. Nano Letters, 2022, 22, 3340-3348.	9.1	29
81	1T′â€Mo _{1â^'<i>x</i>} W <i>_x</i> S ₂ /CdS Heterostructure Enabling Robust Photocatalytic Water Splitting: Unveiling the Interfacial Charge Polarization. Solar Rrl, 2018, 2, 1800032.	5.8	27
82	Designing hierarchical hollow nanostructures of Cu ₂ MoS ₄ for improved hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2017, 19, 557-561.	2.8	26
83	Single-Crystal Inorganic Helical Architectures Induced by Asymmetrical Defects in Sub-Nanometric Wires. Journal of the American Chemical Society, 2021, 143, 9858-9865.	13.7	26
84	Role of Ru Oxidation Degree for Catalytic Activity in Bimetallic Pt/Ru Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 6569-6576.	3.1	25
85	Engineering interfacial charge-transfer by phase transition realizing enhanced photocatalytic hydrogen evolution activity. Inorganic Chemistry Frontiers, 2017, 4, 663-667.	6.0	25
86	Recent Advances of Ternary Layered Cu ₂ MX ₄ (M = Mo, W; X = S, Se) Nanomaterials for Photocatalysis. Solar Rrl, 2019, 3, 1800320.	5.8	23
87	Nonâ€metal Singleâ€lodineâ€Atom Electrocatalysts for the Hydrogen Evolution Reaction. Angewandte Chemie, 2019, 131, 12380-12385.	2.0	23
88	Sulfur Atomically Doped Bismuth Nanobelt Driven by Electrochemical Self-Reconstruction for Boosted Electrocatalysis. Journal of Physical Chemistry Letters, 2020, 11, 1746-1752.	4.6	23
89	Active {010} facet-exposed Cu2MoS4 nanotube as high-efficiency photocatalyst. Nano Research, 2017, 10, 3817-3825.	10.4	22
90	A Ternary Alloy Substrate to Synthesize Monolayer Graphene with Liquid Carbon Precursor. ACS Nano, 2017, 11, 1371-1379.	14.6	21

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91	Facile modulation of different vacancies in ZnS nanoplates for efficient solar fuel production. Journal of Materials Chemistry A, 2021, 9, 7977-7990.	10.3	21
92	Scalable Fabrication of Highly Active and Durable Membrane Electrodes toward Water Oxidation. Small, 2018, 14, 1702109.	10.0	20
93	Probing self-optimization of carbon support in oxygen evolution reaction. Nano Research, 2021, 14, 4534-4540.	10.4	20
94	Motivating Ru-bri site of RuO2 by boron doping toward high performance acidic and neutral oxygen evolution. Nano Research, 2022, 15, 7008-7015.	10.4	20
95	Modulating Electronic Structure of Cobalt Phosphide Precatalysts via Dual-Metal Incorporation for Highly Efficient Overall Water Splitting. ACS Applied Energy Materials, 2019, 2, 8022-8030.	5.1	19
96	Synchrotron-radiation spectroscopic identification towards diverse local environments of single-atom catalysts. Journal of Materials Chemistry A, 2022, 10, 5771-5791.	10.3	19
97	Enhanced electrochemical performance of MoO3-coated LiMn2O4 cathode for rechargeable lithium-ion batteries. Materials Chemistry and Physics, 2017, 199, 203-208.	4.0	17
98	Membrane-assisted assembly strategy of flexible electrodes for multifunctional supercapacitors. Carbon, 2017, 125, 419-428.	10.3	15
99	Two-dimensional Cobalt Oxy-hydrate Sulfide Nanosheets with Modified t2g Orbital State of CoO6–x Octahedron for Efficient Overall Water Splitting. ACS Sustainable Chemistry and Engineering, 2019, 7, 17325-17334.	6.7	15
100	Surface Modification on Pdâ€TiO 2 Hybrid Nanostructures towards Highly Efficient H 2 Production from Catalytic Formic Acid Decomposition. Chemistry - A European Journal, 2018, 24, 18398-18402.	3.3	14
101	Self-optimizing iron phosphorus oxide for stable hydrogen evolution at high current. Applied Catalysis B: Environmental, 2021, 298, 120559.	20.2	14
102	Support induced phase engineering toward superior electrocatalyst. Nano Research, 2022, 15, 1831-1837.	10.4	13
103	In situ synthesis of noble metal nanoparticles on onion-like carbon with enhanced electrochemical and supercapacitor performance. RSC Advances, 2017, 7, 4667-4670.	3.6	12
104	Cation-intercalated engineering and X-ray absorption spectroscopic characterizations of two dimensional MXenes. Chinese Chemical Letters, 2020, 31, 969-979.	9.0	12
105	A Unique Ru-N ₄ -P Coordinated Structure Synergistically Waking Up the Nonmetal P Active Site for Hydrogen Production. Research, 2020, 2020, 5860712.	5.7	12
106	Support Effects in Electrocatalysis and Their Synchrotron Radiation-Based Characterizations. Journal of Physical Chemistry Letters, 2021, 12, 11543-11554.	4.6	12
107	Manipulating and probing the structural self-optimization in oxygen evolution reaction catalysts. Current Opinion in Electrochemistry, 2021, 30, 100788.	4.8	11
108	Atomically Dispersed Single Co Sites in Zeolitic Imidazole Frameworks Promoting Highâ€Efficiency Visibleâ€Lightâ€Driven Hydrogen Production. Chemistry - A European Journal, 2019, 25, 9670-9677.	3.3	10

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109	Selective Selenium-Substituted Metallic MoTe ₂ toward Ternary Atomic Layers with Tunable Semiconducting Character. Journal of Physical Chemistry C, 2019, 123, 24927-24933.	3.1	9
110	3D V ₂ CT _{<i>x</i>} –rGO Architectures with Optimized Ion Transport Channels toward Fast Lithium-Ion Storage. ACS Applied Materials & Interfaces, 2021, 13, 61258-61266.	8.0	9
111	An X-ray absorption spectroscopic investigation of the geometry of Pt(IV) in H2PtCl6 ammonia solution. Journal of Molecular Structure, 2013, 1041, 39-43.	3.6	8
112	Growing and Etching MoS2 on Carbon Nanotube Film for Enhanced Electrochemical Performance. Molecules, 2016, 21, 1318.	3.8	8
113	A non-rigid shift of band dispersions induced by Cu intercalation in 2H-TaSe2. Nano Research, 2020, 13, 353-357.	10.4	8
114	Initial nucleation process in the synthesis of Platinum Nanoparticle from chloroplatinic acid. Nano Today, 2021, 37, 101093.	11.9	8
115	Hierarchical hollow-structured anode for high-rate sodium-ion battery. Journal of Solid State Chemistry, 2020, 283, 121159.	2.9	7
116	Ternary MoSe2xTe2â^'2x alloy with tunable band gap for electronic and optoelectronic transistors. Nanotechnology, 2020, 31, 345704.	2.6	6
117	Approach to electrochemical modulating differential extended X-ray absorption fine structure. Journal of Synchrotron Radiation, 2022, 29, 1065-1073.	2.4	5
118	X-ray absorption study of the geometry structure of Co2+/Co3+ inÂammonia solution. Journal of Molecular Structure, 2015, 1098, 306-310.	3.6	4
119	Engineering multi-dimensional nanocarbons with enhanced electrochemical activity as high-performance bifunctional electrocatalyst. Journal of Porous Materials, 2018, 25, 1115-1122.	2.6	4