

Self-optimizing, highly surface-active layered metal d evolution

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Two-dimensional boron: structures, properties and applications. <i>Chemical Society Reviews</i> , 2017, 46, 6746-6763.	18.7	296
2	Two-dimensional metallic tantalum disulfide as a hydrogen evolution catalyst. <i>Nature Communications</i> , 2017, 8, 958.	5.8	191
3	Hydrogen evolution: Not living on the edge. <i>Nature Energy</i> , 2017, 2, .	19.8	16
4	Synergistic Effect of MoS ₂ Nanosheets and VS ₂ for the Hydrogen Evolution Reaction with Enhanced Humidity-Sensing Performance. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42139-42148.	4.0	112
5	Surface Oxidation of AuNi Heterodimers to Achieve High Activities toward Hydrogen/Oxygen Evolution and Oxygen Reduction Reactions. <i>Small</i> , 2018, 14, e1703749.	5.2	60
6	Ultrathin two-dimensional materials for photo- and electrocatalytic hydrogen evolution. <i>Materials Today</i> , 2018, 21, 749-770.	8.3	228
7	Vertical 1T-TaS ₂ Synthesis on Nanoporous Gold for High-Performance Electrocatalytic Applications. <i>Advanced Materials</i> , 2018, 30, e1705916.	11.1	75
8	Manganese deception on graphene and implications in catalysis. <i>Carbon</i> , 2018, 132, 623-631.	5.4	54
9	Two-Dimensional MoS ₂ Confined Co(OH) ₂ Electrocatalysts for Hydrogen Evolution in Alkaline Electrolytes. <i>ACS Nano</i> , 2018, 12, 4565-4573.	7.3	302
10	Surface Vacancy-Induced Switchable Electric Polarization and Enhanced Ferromagnetism in Monolayer Metal Trihalides. <i>Nano Letters</i> , 2018, 18, 2943-2949.	4.5	157
11	Mapping Catalytically Relevant Edge Electronic States of MoS ₂ . <i>ACS Central Science</i> , 2018, 4, 493-503.	5.3	39
12	Oxidized Laser-Induced Graphene for Efficient Oxygen Electrocatalysis. <i>Advanced Materials</i> , 2018, 30, e1707319.	11.1	94
13	One-pot synthesized boron-doped RhFe alloy with enhanced catalytic performance for hydrogen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2018, 230, 58-64.	10.8	112
14	Anion-Cation Double Substitution in Transition Metal Dichalcogenide to Accelerate Water Dissociation Kinetic for Electrocatalysis. <i>Advanced Energy Materials</i> , 2018, 8, 1702139.	10.2	70
15	The formation of (NiFe)S ₂ pyrite mesocrystals as efficient pre-catalysts for water oxidation. <i>Chemical Science</i> , 2018, 9, 2762-2767.	3.7	60
16	Oxygen-Vacancy Abundant Ultrafine Co ₃ O ₄ /Graphene Composites for High-Rate Supercapacitor Electrodes. <i>Advanced Science</i> , 2018, 5, 1700659.	5.6	392
17	Auto-optimizing Hydrogen Evolution Catalytic Activity of ReS ₂ through Intrinsic Charge Engineering. <i>ACS Nano</i> , 2018, 12, 4486-4493.	7.3	111
18	Metallic Transition-Metal Dichalcogenide Nanocatalysts for Energy Conversion. <i>CheM</i> , 2018, 4, 1510-1537.	5.8	141

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19	Universal Descriptor for Large-Scale Screening of High-Performance MXene-Based Materials for Energy Storage and Conversion. <i>Chemistry of Materials</i> , 2018, 30, 2687-2693.	3.2	71
20	Emerging Two-Dimensional Nanomaterials for Electrocatalysis. <i>Chemical Reviews</i> , 2018, 118, 6337-6408.	23.0	1,552
21	Interfacial Interactions as an Electrochemical Tool To Understand Mo-Based Catalysts for the Hydrogen Evolution Reaction. <i>ACS Catalysis</i> , 2018, 8, 828-836.	5.5	34
22	Two-Dimensional, Ordered, Double Transition Metal Carbides (MXenes): A New Family of Promising Catalysts for the Hydrogen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2018, 122, 28113-28122.	1.5	104
23	Single platinum atoms immobilized on an MXene as an efficient catalyst for the hydrogen evolution reaction. <i>Nature Catalysis</i> , 2018, 1, 985-992.	16.1	1,236
24	Transition metal modification and carbon vacancy promoted Cr ₂ CO ₂ (MXenes): a new opportunity for a highly active catalyst for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20956-20965.	5.2	74
25	Preparation and Physical and Photocatalytic Activity of a New Niobate Oxide Material Containing NbO ₄ Tetrahedra. <i>International Journal of Photoenergy</i> , 2018, 2018, 1-6.	1.4	4
26	Structural Self-Reconstruction of Catalysts in Electrocatalysis. <i>Accounts of Chemical Research</i> , 2018, 51, 2968-2977.	7.6	252
27	Chemical Vapor Deposition Grown Wafer-Scale 2D Tantalum Diselenide with Robust Charge-Density-Wave Order. <i>Advanced Materials</i> , 2018, 30, e1804616.	11.1	63
28	Self-Limited on-Site Conversion of MoO ₃ Nanodots into Vertically Aligned Ultrasmall Monolayer MoS ₂ for Efficient Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2018, 8, 1800734.	10.2	112
29	Fine Tuning Electronic Structure of Catalysts through Atomic Engineering for Enhanced Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2018, 8, 1800789.	10.2	59
30	Substantial Impact of Charge on Electrochemical Reactions of Two-Dimensional Materials. <i>Journal of the American Chemical Society</i> , 2018, 140, 9127-9131.	6.6	170
31	Efficient hydrogen evolution catalyzed by amorphous molybdenum sulfide/N-doped active carbon hybrid on carbon fiber paper. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 15135-15143.	3.8	14
32	Systematic design of superaerophobic nanotube-array electrode comprised of transition-metal sulfides for overall water splitting. <i>Nature Communications</i> , 2018, 9, 2452.	5.8	431
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34	The Sub-Nanometer Scale as a New Focus in Nanoscience. <i>Advanced Materials</i> , 2018, 30, e1802031.	11.1	99
35	Electronic and optical properties of heterostructures based on transition metal dichalcogenides and graphene-like zinc oxide. <i>Scientific Reports</i> , 2018, 8, 12009.	1.6	173
36	Selectively nitrogen-doped carbon materials as superior metal-free catalysts for oxygen reduction. <i>Nature Communications</i> , 2018, 9, 3376.	5.8	436

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37	In Situ Dynamic Nanostructuring of the Cu@Ti Catalyst-Support System Promotes Hydrogen Evolution under Alkaline Conditions. ACS Applied Materials & Interfaces, 2018, 10, 29583-29592.	4.0	18
38	Tuning the catalytic activity of heterogeneous two-dimensional transition metal dichalcogenides for hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 20005-20014.	5.2	63
39	Few-Layer PdSe ₂ Sheets: Promising Thermoelectric Materials Driven by High Valley Convergence. ACS Omega, 2018, 3, 5971-5979.	1.6	87
40	Preparation of 2D material dispersions and their applications. Chemical Society Reviews, 2018, 47, 6224-6266.	18.7	459
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50	Amorphous MoS ₂ confined in nitrogen-doped porous carbon for improved electrocatalytic stability toward hydrogen evolution reaction. Nano Research, 2019, 12, 3116-3122.	5.8	22
52	Oxygen Evolution Reaction on 2D Ferromagnetic Fe ₃ GeTe ₂ : Boosting the Reactivity by the Self-Reduction of Surface Hydroxyl. Advanced Functional Materials, 2019, 29, 1904782.	7.8	42
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55	One-step synthesis of a hierarchical self-supported WS ₂ film for efficient electrocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 22405-22411.	5.2	33

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57	Modulation of Phosphorene for Optimal Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37787-37795.	4.0	38
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59	Facile microwave assisted synthesis of vastly edge exposed 1T/2H-MoS ₂ with enhanced activity for hydrogen evolution catalysis. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3563-3569.	5.2	24
60	Impact of Interfacial Electron Transfer on Electrochemical CO ₂ Reduction on Graphitic Carbon Nitride/Doped Graphene. <i>Small</i> , 2019, 15, e1804224.	5.2	69
61	Cracked eight-awn star TaS ₂ with fractal structures used as an efficient electrocatalyst for the hydrogen evolution reaction. <i>CrystEngComm</i> , 2019, 21, 3517-3524.	1.3	5
62	Engineering Two-Dimensional Materials and Their Heterostructures as High-Performance Electrocatalysts. <i>Electrochemical Energy Reviews</i> , 2019, 2, 373-394.	13.1	74
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64	Chemical Vapor Deposition Grown Large-Scale Atomically Thin Platinum Diselenide with Semimetal-Semiconductor Transition. <i>ACS Nano</i> , 2019, 13, 8442-8451.	7.3	87
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68	The electronic structure underlying electrocatalysis of two-dimensional materials. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2019, 9, e1418.	6.2	17
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70	Metallic 1T phase MoS ₂ /MnO composites with improved cyclability for lithium-ion battery anodes. <i>Journal of Alloys and Compounds</i> , 2019, 796, 25-32.	2.8	22
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72	Triggering Catalytic Active Sites for Hydrogen Evolution Reaction by Intrinsic Defects in Janus Monolayer MoSSe. <i>Journal of Physical Chemistry C</i> , 2019, 123, 12261-12267.	1.5	49
73	Phase-Tunable Synthesis of Ultrathin Layered Tetragonal CoSe and Nonlayered Hexagonal CoSe Nanoplates. <i>Advanced Materials</i> , 2019, 31, e1900901.	11.1	52

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74	Identifying Catalytic Active Sites of Trimolybdenum Phosphide (Mo_3P) for Electrochemical Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2019, 9, 1900516.	10.2	47
75	In situ engineering bi-metallic phospho-nitride bi-functional electrocatalysts for overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 414-423.	10.8	107
76	Doping-Induced Amorphization, Vacancy, and Gradient Energy Band in SnS_2 Nanosheet Arrays for Improved Photoelectrochemical Water Splitting. <i>Angewandte Chemie</i> , 2019, 131, 6833-6837.	1.6	23
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79	Discovering superior basal plane active two-dimensional catalysts for hydrogen evolution. <i>Materials Today</i> , 2019, 25, 28-34.	8.3	58
80	Hierarchical Edge-Rich Nickel Phosphide Nanosheet Arrays as Efficient Electrocatalysts toward Hydrogen Evolution in Both Alkaline and Acidic Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7804-7811.	3.2	48
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82	Direct Synthesis of Metal-Doped Phosphorene with Enhanced Electrocatalytic Hydrogen Evolution. <i>Small Methods</i> , 2019, 3, 1900083.	4.6	56
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140	Recent Modification Strategies of MoS ₂ for Enhanced Electrocatalytic Hydrogen Evolution. <i>Molecules</i> , 2020, 25, 1136.	1.7	44
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142	Two-Dimensional Layered Materials: High-Efficient Electrocatalysts for Hydrogen Evolution Reaction. <i>ACS Applied Nano Materials</i> , 2020, 3, 6270-6296.	2.4	70
143	Pairing of Transition Metal Dichalcogenides and Doped Graphene for Catalytically Dual Active Interfaces for the Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, , .	3.2	0
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