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## NickelCopper Alloy Encapsulated in Graphitic Carbon Shells as Electrocatalysts for Hydrogen Evolution Reaction

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#	Paper	IF	Citations
190	Particle-in-box nanostructured materials created via spatially confined pyrolysis as high performance bifunctional catalysts for electrochemical overall water splitting. <i>Nano Energy</i> , <b>2018</b> , 48, 489-499	17.1	65
189	Low-ruthenium-content NiRu nanoalloys encapsulated in nitrogen-doped carbon as highly efficient and pH-universal electrocatalysts for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 1376-1381	13	129
188	Porous PtNi with enhanced activity and durability towards oxygen reduction reaction.. <b>2018</b> , 8, 15344-15351		8
187	3D nanoporous Ni/V <sub>2</sub> O <sub>3</sub> hybrid nanoplate assemblies for highly efficient electrochemical hydrogen evolution. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 21452-21457	13	25
186	Morphology-Controlled Synthesis of Co <sub>3</sub> O <sub>4</sub> Materials and its Electrochemical Catalytic Properties Towards Oxygen Evolution Reaction. <b>2018</b> , 148, 3771-3778		9
185	Synthesis of Molybdenum Tungsten Bimetallic Carbide Hollow Spheres as pH-Universal Electrocatalysts for Efficient Hydrogen Evolution Reaction. <b>2018</b> , 5, 1801302		20
184	Tuning the Electronic Structure of Se via Constructing Rh-MoSe <sub>2</sub> Nanocomposite to Generate High-Performance Electrocatalysis for Hydrogen Evolution Reaction. <b>2018</b> , 6, 9137-9144		23
183	Fine Tuning Electronic Structure of Catalysts through Atomic Engineering for Enhanced Hydrogen Evolution. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800789	21.8	38
182	In Situ Chainmail Catalyst Assembly in Low-Tortuosity, Hierarchical Carbon Frameworks for Efficient and Stable Hydrogen Generation. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801289	21.8	44
181	Copper Nickel embedded into a nitrogen-doped carbon octahedron as an effective bifunctional electrocatalyst. <b>2018</b> , 5, 2276-2283		33
180	FeP Nanocrystals Embedded in N-Doped Carbon Nanosheets for Efficient Electrocatalytic Hydrogen Generation over a Broad pH Range. <b>2018</b> , 6, 11587-11594		35
179	One-step electrodeposition of a hierarchically structured S-doped NiCo film as a highly-efficient electrocatalyst for the hydrogen evolution reaction. <i>Nanoscale</i> , <b>2018</b> , 10, 15238-15248	7.7	35
178	Efficient electrocatalytic hydrogen gas evolution by a cobalt-porphyrin-based crystalline polymer. <i>Dalton Transactions</i> , <b>2018</b> , 47, 8801-8806	4.3	9
177	Nanoporous Nickel Phosphide Cathode for a High-Performance Proton Exchange Membrane Water Electrolyzer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 30774-30785	9.5	16
176	Comprehensive study to design advanced metal-carbide@garaphene and metal-carbide@iron oxide nanoparticles with tunable structure by the laser ablation in liquid. <i>Journal of Colloid and Interface Science</i> , <b>2019</b> , 556, 180-192	9.3	17
175	Selective Electro-Oxidation of Glycerol to Dihydroxyacetone by PtAg Skeletons. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 28953-28959	9.5	26
174	Engineering Multifunctional Collaborative Catalytic Interface Enabling Efficient Hydrogen Evolution in All pH Range and Seawater. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901333	21.8	98

173	Hierarchical NiMo alloy microtubes on nickel foam as an efficient electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 24712-24718	6.7	19
172	Prussian blue/ZIF-67-derived carbon layers-encapsulated FeCo nanoparticles for hydrogen and oxygen evolution reaction. <b>2019</b> , 853, 113557		5
171	Nesting CoMo Binary Alloy Nanoparticles onto Molybdenum Oxide Nanosheet Arrays for Superior Hydrogen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 9002-9010	9.5	38
170	Phosphorus and Yttrium Codoped Co(OH)F Nanoarray as Highly Efficient and Bifunctional Electrocatalysts for Overall Water Splitting. <b>2019</b> , 15, e1904105		23
169	A Facile and Robust Method for Synthesis of Hierarchically Multibranched PtIrCo Alloyed Nanowires: Growth Mechanism and Efficient Electrocatalysis for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 7886-7892	6.1	14
168	Devisable POM/Ni Foam Composite: Precisely Control Synthesis toward Enhanced Hydrogen Evolution Reaction at High pH. <b>2019</b> , 25, 15548-15554		8
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166	Strongly coupled hollow-oxide/phosphide hybrid coated with nitrogen-doped carbon as highly efficient electrocatalysts in alkaline for hydrogen evolution reaction. <b>2019</b> , 377, 582-588		25
165	Pulse-electrodeposited nickel phosphide for high-performance proton exchange membrane water electrolysis. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 785, 296-304	5.7	24
164	Recent progress in the hybrids of transition metals/carbon for electrochemical water splitting. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 14380-14390	13	68
163	Electrocatalytic hydrogen evolution on iron-cobalt nanoparticles encapsulated in nitrogenated carbon nanotube. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 16478-16486	6.7	22
162	Nitrogen-Doped Carbon Cages Encapsulating CuZn Alloy for Enhanced CO Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 25100-25107	9.5	10
161	Enhanced hydrogen evolution reaction on highly stable titania-supported PdO and Eu <sub>2</sub> O <sub>3</sub> nanocomposites in a strong alkaline solution. <b>2019</b> , 43, 5367-5383		15
160	Rational construction of macroporous CoFeP triangular plate arrays from bimetal-organic frameworks as high-performance overall water-splitting catalysts. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 17529-17535	13	61
159	Transition metal electrocatalysts encapsulated into N-doped carbon nanotubes on reduced graphene oxide nanosheets: efficient water splitting through synergistic effects. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 15145-15155	13	42
158	NiFe Alloy Nanotube Arrays as Highly Efficient Bifunctional Electrocatalysts for Overall Water Splitting at High Current Densities. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 24096-24106	9.5	44
157	Heterogenization of few-layer MoS <sub>2</sub> with highly crystalline 3D Ni <sub>3</sub> S <sub>2</sub> nanoframes effectively synergizes the electrocatalytic hydrogen generation in alkaline medium. <b>2019</b> , 13, 85-92		18
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155	Nitrogen-Doped Graphene-Encapsulated Nickel-Copper Alloy Nanoflower for Highly Efficient Electrochemical Hydrogen Evolution Reaction. <b>2019</b> , 15, e1901545		32
154	Electric field endowing the conductive polyvinylidene fluoride (PVDF)-graphene oxide (GO)-nickel (Ni) membrane with high-efficient performance for dye wastewater treatment. <i>Applied Surface Science</i> , <b>2019</b> , 483, 1006-1016	6.7	41
153	Double-Site Ni <sub>2</sub> W Nanosheet for Best Alkaline HER Performance at High Current Density >500 mA cm <sup>2</sup> . <b>2019</b> , 6, 1900308		10
152	Regulating the allocation of N and P in codoped graphene via supramolecular control to remarkably boost hydrogen evolution. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2697-2705	35.4	45
151	Investigation of the correlation between the phase structure and activity of Ni <sub>2</sub> Mo <sub>2</sub> D derived electrocatalysts for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 10338-10345	13.4	14
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149	Adsorption Energy Shifts for Oxygen and Hydroxyl on 4-atom Metal-Decorated Graphene Catalysts Via Solvation, pH, and Substrate Dopants: Effects on ORR Activity. <b>2019</b> , 9, 227		3
148	Copper-Nickel Nitride Nanosheets as Efficient Bifunctional Catalysts for Hydrazine-Assisted Electrolytic Hydrogen Production. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900390	21.8	128
147	On the feasibility of bifunctional hydrogen oxidation on Ni and NiCu surfaces. <i>Electrochimica Acta</i> , <b>2019</b> , 305, 452-458	6.7	17
146	Versatile electrocatalytic processes realized by Ni, Co and Fe alloyed core coordinated carbon shells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 12154-12165	13	22
145	Facile and fast synthesis of Ni composite coating on Ti mesh by electrodeposition method for high-performance hydrogen production. <b>2019</b> , 245, 138-141		3
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143	3D carbon framework-supported CoNi nanoparticles as bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. <b>2019</b> , 240, 193-200		134
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137	Activated Cu/Cu <sub>2</sub> O foam with Ni nanoparticles for electrocatalytic activity enhancement of hydrogen evolution reaction (HER) in acidic media. <b>2019</b> , 70, 211-225		17
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130	Fabrication of carbon nanotubes encapsulated cobalt phosphide on graphene: Cobalt promoted hydrogen evolution reaction performance. <i>Electrochimica Acta</i> , <b>2020</b> , 330, 135213	6.7	11
129	Recent Advances in Electrocatalytic Hydrogen Evolution Using Nanoparticles. <i>Chemical Reviews</i> , <b>2020</b> , 120, 851-918	68.1	722
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120	Electrocatalytic production of hydrogen over highly efficient ultrathin carbon encapsulated S, P co-existence copper nanorods composite. <b>2020</b> , 151, 1278-1285		7

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118	Amorphous NiFeOH/NiCuP supported on self-supporting expanded graphite sheet as efficient bifunctional electrocatalysts for overall water splitting. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 30387-30395	6.7	3
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115	Enhanced stability and electrocatalytic activity of graphene on copper-nickel alloys for hydrogen production from wastewater. <i>Carbon</i> , <b>2020</b> , 161, 665-673	10.4	5
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106	Incorporation of pyridinic and graphitic N to Ni@CNTs: As a competent electrocatalyst for hydrogen evolution reaction. <b>2020</b> , 44, 9157-9165		13
105	Surface and interface engineering of noble-metal-free electrocatalysts for efficient overall water splitting. <i>Coordination Chemistry Reviews</i> , <b>2020</b> , 418, 213374	23.2	91
104	Mechanistic study on nickel-molybdenum based electrocatalysts for the hydrogen evolution reaction. <b>2020</b> , 388, 122-129		13
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93	Hydrogen evolution reaction in full pH range on nickel doped tungsten carbide nanocubes as efficient and durable non-precious metal electrocatalysts. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 8695-8702	6.7	20
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91	Exploring the impact of atomic lattice deformation on oxygen evolution reactions based on a sub-5 nm pure face-centred cubic high-entropy alloy electrocatalyst. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 11938-11947	13	42
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89	Electro-oxidation of glycerol by tetrametallic platinum-gold-palladium-silver nanoparticles. <i>Journal of Applied Electrochemistry</i> , <b>2021</b> , 51, 79-86	2.6	4
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