

Weihua Hu

List of Publications by Year in descending order

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102
papers

4,957
citations

61857

43
h-index

102304

66
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102
docs citations

102
times ranked

6660
citing authors

#	ARTICLE	IF	CITATIONS
1	Transition-Metal Phosphides: Activity Origin, Energy-Related Electrocatalysis Applications, and Synthetic Strategies. <i>Advanced Functional Materials</i> , 2020, 30, 2004009.	7.8	309
2	Experimental Sensing and Density Functional Theory Study of H ₂ S and SOF ₂ Adsorption on Au-Modified Graphene. <i>Advanced Science</i> , 2015, 2, 1500101.	5.6	213
3	Multi-color quantum dot-based fluorescence immunoassay array for simultaneous visual detection of multiple antibiotic residues in milk. <i>Biosensors and Bioelectronics</i> , 2015, 72, 320-325.	5.3	173
4	Metal-support interaction boosted electrocatalysis of ultrasmall iridium nanoparticles supported on nitrogen doped graphene for highly efficient water electrolysis in acidic and alkaline media. <i>Nano Energy</i> , 2019, 62, 117-126.	8.2	151
5	First-principles study of SF ₆ decomposed gas adsorbed on Au-decorated graphene. <i>Applied Surface Science</i> , 2016, 367, 259-269.	3.1	141
6	Interface Functionalization of Photoelectrodes with Graphene for High Performance Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , 2012, 22, 5245-5250.	7.8	135
7	Strong Electronic Interaction Enhanced Electrocatalysis of Metal Sulfide Clusters Embedded Metal-Organic Framework Ultrathin Nanosheets toward Highly Efficient Overall Water Splitting. <i>Advanced Science</i> , 2020, 7, 2001965.	5.6	129
8	Polydopamine-Functionalization of Graphene Oxide to Enable Dual Signal Amplification for Sensitive Surface Plasmon Resonance Imaging Detection of Biomarker. <i>Analytical Chemistry</i> , 2014, 86, 4488-4493.	3.2	127
9	Bioinspired synthesis of nitrogen/sulfur co-doped graphene as an efficient electrocatalyst for oxygen reduction reaction. <i>Journal of Power Sources</i> , 2015, 279, 252-258.	4.0	117
10	Fe ₃ C nanoparticle decorated Fe/N doped graphene for efficient oxygen reduction reaction electrocatalysis. <i>Journal of Power Sources</i> , 2016, 332, 305-311.	4.0	104
11	A fluorescence aptasensor based on semiconductor quantum dots and MoS ₂ nanosheets for ochratoxin A detection. <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 61-67.	4.0	104
12	Ultrasmall Ru ₂ P nanoparticles on graphene: a highly efficient hydrogen evolution reaction electrocatalyst in both acidic and alkaline media. <i>Chemical Communications</i> , 2018, 54, 3343-3346.	2.2	102
13	Multifunctionalized reduced graphene oxide-doped polypyrrole/pyrrolepropyic acid nanocomposite impedimetric immunosensor to ultra-sensitively detect small molecular aflatoxin B ₁ . <i>Biosensors and Bioelectronics</i> , 2015, 63, 185-189.	5.3	93
14	Poly[oligo(ethylene glycol) methacrylate-co-glycidyl methacrylate] Brush Substrate for Sensitive Surface Plasmon Resonance Imaging Protein Arrays. <i>Advanced Functional Materials</i> , 2010, 20, 3497-3503.	7.8	90
15	One-Pot Synthesis of Co/CoFe ₂ O ₄ Nanoparticles Supported on N-Doped Graphene for Efficient Bifunctional Oxygen Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3556-3564.	3.2	85
16	In Situ Studies of Protein Adsorptions on Poly(pyrrole-co-pyrrole propyic acid) Film by Electrochemical Surface Plasmon Resonance. <i>Langmuir</i> , 2007, 23, 2761-2767.	1.6	82
17	An in situ electrochemical surface plasmon resonance immunosensor with polypyrrole propyic acid film: Comparison between SPR and electrochemical responses from polymer formation to protein immunosensing. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1055-1062.	5.3	81
18	Thermoelectric Bi ₂ Te ₃ -improved charge collection for high-performance dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2012, 5, 6294-6298.	15.6	77

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19	Solvent-mediated directionally self-assembling MoS ₂ nanosheets into a novel worm-like structure and its application in sodium batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9932-9937.	5.2	74
20	Mesoporous Hollow Nitrogen-Doped Carbon Nanospheres with Embedded MnFe ₂ O ₄ /Fe Hybrid Nanoparticles as Efficient Bifunctional Oxygen Electrocatalysts in Alkaline Media. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 20440-20447.	4.0	73
21	ZnO nanorods-enhanced fluorescence for sensitive microarray detection of cancers in serum without additional reporter-amplification. <i>Biosensors and Bioelectronics</i> , 2011, 26, 3683-3687.	5.3	69
22	Spontaneous interfacial reaction between metallic copper and PBS to form cupric phosphate nanoflower and its enzyme hybrid with enhanced activity. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 135, 613-618.	2.5	69
23	One-pot synthesis of Co/N-doped mesoporous graphene with embedded Co/CoO _x nanoparticles for efficient oxygen reduction reaction. <i>Nanoscale</i> , 2017, 9, 10233-10239.	2.8	69
24	Hybrid ZnO Nanorod-Polymer Brush Hierarchically Nanostructured Substrate for Sensitive Antibody Microarrays. <i>Advanced Materials</i> , 2015, 27, 181-185.	11.1	67
25	Sensitive competitive immunoassay of multiple mycotoxins with non-fouling antigen microarray. <i>Biosensors and Bioelectronics</i> , 2013, 50, 338-344.	5.3	66
26	Amorphous nickel sulfide nanosheets with embedded vanadium oxide nanocrystals on nickel foam for efficient electrochemical water oxidation. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10534-10542.	5.2	65
27	Highly Efficient Alkaline Water Splitting with Ru-Doped Co-V Layered Double Hydroxide Nanosheets as a Bifunctional Electrocatalyst. <i>ChemSusChem</i> , 2021, 14, 730-737.	3.6	63
28	DNA-Templated Biomimetic Enzyme Sheets on Carbon Nanotubes to Sensitive In Situ Detect Superoxide Anions Released from Cells. <i>Advanced Functional Materials</i> , 2014, 24, 5897-5903.	7.8	59
29	Heterostructured CoSe ₂ /FeSe ₂ Nanoparticles with Abundant Vacancies and Strong Electronic Coupling Supported on Carbon Nanorods for Oxygen Evolution Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4658-4666.	3.2	56
30	Rewritable multicolor fluorescent patterns for multistate memory devices with high data storage capacity. <i>Chemical Communications</i> , 2011, 47, 9609.	2.2	55
31	Gold-Incorporated Cobalt Phosphide Nanoparticles on Nitrogen-Doped Carbon for Enhanced Hydrogen Evolution Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 16548-16556.	4.0	55
32	Poly(pyrrole-co-pyrrole propylic acid) film and its application in label-free surface plasmon resonance immunosensors. <i>Analytica Chimica Acta</i> , 2008, 630, 67-74.	2.6	54
33	Molybdenum carbide/phosphide hybrid nanoparticles embedded P, N co-doped carbon nanofibers for highly efficient hydrogen production in acidic, alkaline solution and seawater. <i>Electrochimica Acta</i> , 2018, 281, 710-716.	2.6	53
34	In Situ Surface Plasmon Resonance Investigation of the Assembly Process of Multiwalled Carbon Nanotubes on an Alkanethiol Self-Assembled Monolayer for Efficient Protein Immobilization and Detection. <i>Langmuir</i> , 2010, 26, 8386-8391.	1.6	51
35	Ru-Doping Enhanced Electrocatalysis of Metal-Organic Framework Nanosheets toward Overall Water Splitting. <i>Chemistry - A European Journal</i> , 2020, 26, 17091-17096.	1.7	51
36	Ru ₂ P Nanoparticle Decorated P/N-Doped Carbon Nanofibers on Carbon Cloth as a Robust Hierarchical Electrocatalyst with Platinum-Comparable Activity toward Hydrogen Evolution. <i>ACS Applied Energy Materials</i> , 2018, 1, 3143-3150.	2.5	49

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37	Bifunctional electro-optical nanoprobe to real-time detect local biochemical processes in single cells. <i>Biosensors and Bioelectronics</i> , 2011, 26, 4484-4490.	5.3	48
38	Fe/Fe ₃ C nanoparticles loaded on Fe/N-doped graphene as an efficient heterogeneous Fenton catalyst for degradation of organic pollutants. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 518, 145-150.	2.3	48
39	Randomly Oriented ZnO Nanorods As Advanced Substrate for High-Performance Protein Microarrays. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 1569-1572.	4.0	47
40	A portable flow-through fluorescent immunoassay lab-on-a-chip device using ZnO nanorod-decorated glass capillaries. <i>Lab on A Chip</i> , 2013, 13, 1797.	3.1	47
41	Graphene oxide-enabled tandem signal amplification for sensitive SPRi immunoassay in serum. <i>Chemical Communications</i> , 2014, 50, 2133.	2.2	45
42	Sensitive detection of multiple mycotoxins by SPRi with gold nanoparticles as signal amplification tags. <i>Journal of Colloid and Interface Science</i> , 2014, 431, 71-76.	5.0	45
43	Nitrogen/sulfur-doping of graphene with cysteine as a heteroatom source for oxygen reduction electrocatalysis. <i>Journal of Colloid and Interface Science</i> , 2017, 505, 32-37.	5.0	44
44	A DFT study of SF ₆ decomposed gas adsorption on an anatase (101) surface. <i>Applied Surface Science</i> , 2013, 286, 47-53.	3.1	42
45	Benchmarking Three Ruthenium Phosphide Phases for Electrocatalysis of the Hydrogen Evolution Reaction: Experimental and Theoretical Insights. <i>Chemistry - A European Journal</i> , 2019, 25, 7826-7830.	1.7	42
46	Electronic interaction boosted electrocatalysis of iridium nanoparticles on nitrogen-doped graphene for efficient overall water splitting in acidic and alkaline media. <i>Chemical Engineering Journal</i> , 2021, 415, 129034.	6.6	42
47	Patterning of Metal Films on Arbitrary Substrates by Using Polydopamine as a UV-Sensitive Catalytic Layer for Electroless Deposition. <i>Langmuir</i> , 2016, 32, 5285-5290.	1.6	40
48	Highly sensitive poly[glycidyl methacrylate-co-poly(ethylene glycol) methacrylate] brush-based flow-through microarray immunoassay device. <i>Biomedical Microdevices</i> , 2011, 13, 769-777.	1.4	38
49	Iron oxide/oxyhydroxide decorated graphene oxides for oxygen reduction reaction catalysis: a comparison study. <i>RSC Advances</i> , 2016, 6, 29848-29854.	1.7	38
50	Photografted poly(methyl methacrylate)-based high performance protein microarray for hepatitis B virus biomarker detection in human serum. <i>MedChemComm</i> , 2010, 1, 132.	3.5	37
51	Versatile Route To Fabricate Precious-Metal Phosphide Electrocatalyst for Acid-Stable Hydrogen Oxidation and Evolution Reactions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11737-11744.	4.0	37
52	High performance protein microarrays based on glycidyl methacrylate-modified polyethylene terephthalate plastic substrate. <i>Talanta</i> , 2009, 77, 1165-1171.	2.9	36
53	Electroanalysis in micro- and nano-scales. <i>Journal of Electroanalytical Chemistry</i> , 2013, 688, 20-31.	1.9	36
54	Colorimetric detection of mercury(II) based on 2,2'-bipyridyl induced quasi-linear aggregation of gold nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2015, 215, 421-427.	4.0	36

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55	Dual signal amplification of surface plasmon resonance imaging for sensitive immunoassay of tumor marker. <i>Analytical Biochemistry</i> , 2014, 453, 16-21.	1.1	35
56	Electrochemically polymerized nanostructured poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) buffer layer for a high performance polymer solar cell. <i>Energy and Environmental Science</i> , 2010, 3, 1580.	15.6	34
57	Stabilization of gold nanoparticles on glass surface with polydopamine thin film for reliable LSPR sensing. <i>Journal of Colloid and Interface Science</i> , 2015, 460, 258-263.	5.0	34
58	Protein immobilization and fluorescence quenching on polydopamine thin films. <i>Journal of Colloid and Interface Science</i> , 2016, 477, 123-130.	5.0	33
59	Nanomaterial-based advanced immunoassays. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2011, 3, 119-133.	3.3	30
60	Interaction mechanisms of CdTe quantum dots with proteins possessing different isoelectric points. <i>MedChemComm</i> , 2011, 2, 283.	3.5	29
61	Adsorption of SF6 decomposed gas on anatase (101) and (001) surfaces with oxygen defect: A density functional theory study. <i>Scientific Reports</i> , 2014, 4, 4762.	1.6	28
62	Cobalt nanoparticle decorated graphene aerogel for efficient oxygen reduction reaction electrocatalysis. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 5930-5937.	3.8	28
63	Manganese/Cobalt Bimetal Nanoparticles Encapsulated in Nitrogen-Rich Graphene Sheets for Efficient Oxygen Reduction Reaction Electrocatalysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 10545-10551.	3.2	28
64	Bifunctional polydopamine thin film coated zinc oxide nanorods for label-free photoelectrochemical immunoassay. <i>Talanta</i> , 2017, 166, 141-147.	2.9	27
65	Simultaneous phase transformation and doping <i>via</i> a unique photochemical electrochemical strategy to achieve a highly active Fe-doped Ni oxyhydroxide oxygen evolution catalyst. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4213-4220.	5.2	26
66	Hierarchically porous Fe/N-C hollow spheres derived from melamine/Fe-incorporated polydopamine for efficient oxygen reduction reaction electrocatalysis. <i>Sustainable Energy and Fuels</i> , 2019, 3, 3455-3461.	2.5	25
67	Sensitive protein microarray synergistically amplified by polymer brush-enhanced immobilizations of both probe and reporter. <i>Journal of Colloid and Interface Science</i> , 2011, 360, 593-599.	5.0	24
68	Electrochemically enhanced antibody immobilization on polydopamine thin film for sensitive surface plasmon resonance immunoassay. <i>Talanta</i> , 2018, 182, 470-475.	2.9	24
69	Effect of nanoparticle composition on oxygen reduction reaction activity of Fe/N-C catalysts: a comparative study. <i>Catalysis Science and Technology</i> , 2019, 9, 711-717.	2.1	23
70	Efficient oxygen reduction electrocatalysis on Mn ₃ O ₄ nanoparticles decorated N-doped carbon with hierarchical porosity and abundant active sites. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 26387-26395.	3.8	22
71	Ionic liquid <i>in situ</i> functionalized carbon nanotubes as metal-free catalyst for efficient electrocatalytic hydrogen evolution reaction. <i>Nanoscale</i> , 2021, 13, 4444-4450.	2.8	22
72	Single-layer graphene-coated gold chip for enhanced SPR imaging immunoassay. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 1548-1555.	4.0	21

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73	Amorphous-crystalline cobalt-molybdenum bimetallic phosphide heterostructured nanosheets as Janus electrocatalyst for efficient water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 7783-7792.	3.8	21
74	ZnO Nanomulberry and Its Significant Nonenzymatic Signal Enhancement for Protein Microarray. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 7728-7734.	4.0	20
75	Fabrication of oriented poly-L-lysine/bacteriorhodopsin-embedded purple membrane multilayer structure for enhanced photoelectric response. <i>Journal of Colloid and Interface Science</i> , 2010, 344, 150-157.	5.0	19
76	DNA-Promoted Ultrasmall Palladium Nanocrystals on Carbon Nanotubes: Towards Efficient Formic Acid Oxidation. <i>ChemElectroChem</i> , 2014, 1, 72-75.	1.7	19
77	Simultaneous Transfer and Imaging of Latent Fingerprints Enabled by Interfacial Separation of Polydopamine Thin Film. <i>Analytical Chemistry</i> , 2016, 88, 10357-10361.	3.2	17
78	Core-shell structured BiOCl@polydopamine hierarchical hollow microsphere for highly efficient photocatalysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 580, 123747.	2.3	17
79	Chip architecture-enabled sensitivity enhancement of oblique-incidence reflectivity difference for label-free protein microarray detection. <i>Sensors and Actuators B: Chemical</i> , 2019, 294, 216-223.	4.0	16
80	Fe-doped Co ₉ S ₈ @CoO aerogel with core-shell nanostructures for boosted oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21182-21190.	3.8	16
81	A high performance xylose microbial fuel cell enabled by <i>Ochrobactrum</i> sp. 575 cells. <i>RSC Advances</i> , 2014, 4, 39839-39843.	1.7	14
82	In Situ Investigation of Electrochemically Mediated Surface-Initiated Atom Transfer Radical Polymerization by Electrochemical Surface Plasmon Resonance. <i>Analytical Chemistry</i> , 2017, 89, 4355-4358.	3.2	14
83	Rh ₂ P Nanoparticles Partially Embedded in N/P-Doped Carbon Scaffold at Ultralow Metal Loading for High Current Density Water Electrolysis. <i>ACS Applied Nano Materials</i> , 2021, 4, 3369-3376.	2.4	14
84	ZnO nanorod-templated well-aligned ZrO ₂ nanotube arrays for fibroblast adhesion and proliferation. <i>Nanotechnology</i> , 2014, 25, 215102.	1.3	12
85	Adsorptions of SO ₂ , SOF ₂ , and SO ₂ F ₂ on Pt-modified anatase (101) surface: Sensing mechanism study. <i>Applied Surface Science</i> , 2015, 353, 662-669.	3.1	12
86	Reusable OIRD Microarray Chips Based on a Bienzyme-Immobilized Polyaniline Nanowire Forest for Multiplexed Detection of Biological Small Molecules. <i>Analytical Chemistry</i> , 2021, 93, 10697-10703.	3.2	11
87	Spatially resolved electrochemical reversibility of a conducting polymer thin film imaged by oblique-incidence reflectivity difference. <i>Chemical Communications</i> , 2020, 56, 1972-1975.	2.2	10
88	Rational Synthesis of Iron/Nitrogen-Doped Carbon Catalyst through a Spatial Isolation Strategy for Efficient Oxygen Reduction in Acidic and Alkaline Media. <i>Chemistry - A European Journal</i> , 2019, 25, 11560-11565.	1.7	9
89	Optical imaging of the potential distribution at transparent electrode/solution interfaces. <i>Chemical Communications</i> , 2020, 56, 4531-4534.	2.2	9
90	One-step synthesis of monodisperse gold dendrite@polypyrrole core-shell nanoparticles and their enhanced catalytic durability. <i>Colloid and Polymer Science</i> , 2015, 293, 505-512.	1.0	8

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91	Fenton-Reaction-Derived Fe/N-Doped Graphene with Encapsulated Fe ₃ C Nanoparticles for Efficient Photo-Fenton Catalysis. <i>Catalysis Letters</i> , 2018, 148, 2528-2536.	1.4	8
92	Interfacial Separation-Enabled All-Dry Approach for Simultaneous Visualization, Transfer, and Enhanced Raman Analysis of Latent Fingerprints. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37350-37356.	4.0	7
93	Sacrificial templating synthesis of metal-organic framework hybrid nanosheets as efficient pre-electrocatalyst for oxygen evolution reaction in alkaline. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 632, 127745.	2.3	7
94	Phosphatizing engineering of heterostructured Rh ₂ P/Rh nanoparticles on doped graphene for efficient hydrogen evolution in alkaline and acidic media. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 24669-24679.	3.8	6
95	A microwell array structured surface plasmon resonance imaging gold chip for high-performance label-free immunoassay. <i>Analyst</i> , The, 2020, 145, 6395-6400.	1.7	5
96	Mechanism and kinetics of cathodic corrosion of fluorine-doped tin oxide revealed by in situ oblique incident reflectivity difference. <i>Electrochemistry Communications</i> , 2021, 127, 107037.	2.3	5
97	Polydopamine thin film-assisted patterned chemical bath deposition of ZnO nanorods on arbitrary substrates. <i>CrystEngComm</i> , 2017, 19, 6182-6188.	1.3	4
98	Competitive Immunoassays Using Antigen Microarrays. <i>Methods in Molecular Biology</i> , 2016, 1368, 237-247.	0.4	3
99	Single-layer graphene-coated gold chip for electrochemical surface plasmon resonance study. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 4577-4585.	1.9	2
100	GOLD NANOPARTICLE-INCORPORATED POLYELECTROLYTE MULTILAYER FOR SENSITIVE ELECTROCHEMICAL IMMUNOSENSING. <i>Cosmos</i> , 2010, 06, 197-205.	0.4	0
101	Fluorescent immunoassay system. , 2013, , .		0
102	A Bioinspired Surface Chemistry for Solid-State Nanopores Modification. <i>Biophysical Journal</i> , 2017, 112, 458a.	0.2	0