

# Aihua Liu

## List of Publications by Year in descending order

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77  
papers

4,256  
citations

81900

39  
h-index

110387

64  
g-index

78  
all docs

78  
docs citations

78  
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4744  
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#	ARTICLE	IF	CITATIONS
1	Tackling the Challenges of Enzymatic (Bio)Fuel Cells. <i>Chemical Reviews</i> , 2019, 119, 9509-9558.	47.7	321
2	Au@Ag Heterogeneous Nanorods as Nanozyme Interfaces with Peroxidase-Like Activity and Their Application for One-Pot Analysis of Glucose at Nearly Neutral pH. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 14463-14470.	8.0	237
3	Simultaneous voltammetric detection of dopamine and uric acid at their physiological level in the presence of ascorbic acid using poly(acrylic acid)-multiwalled carbon-nanotube composite-covered glassy-carbon electrode. <i>Biosensors and Bioelectronics</i> , 2007, 23, 74-80.	10.1	199
4	Direct Electrochemistry of Myoglobin in Titanate Nanotubes Film. <i>Analytical Chemistry</i> , 2005, 77, 8068-8074.	6.5	168
5	Leaf-templated synthesis of 3D hierarchical porous cobalt oxide nanostructure as direct electrochemical biosensing interface with enhanced electrocatalysis. <i>Biosensors and Bioelectronics</i> , 2015, 63, 145-152.	10.1	154
6	Facile Preparation of Homogeneous Copper Nanoclusters Exhibiting Excellent Tetraenzyme Mimetic Activities for Colorimetric Glutathione Sensing and Fluorimetric Ascorbic Acid Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 42521-42530.	8.0	119
7	Facile synthesis of magnetic hierarchical flower-like Co <sub>3</sub> O <sub>4</sub> spheres: Mechanism, excellent tetra-enzyme mimics and their colorimetric biosensing applications. <i>Biosensors and Bioelectronics</i> , 2020, 165, 112342.	10.1	111
8	Novel biotemplated MnO <sub>2</sub> 1D nanozyme with controllable peroxidase-like activity and unique catalytic mechanism and its application for glucose sensing. <i>Sensors and Actuators B: Chemical</i> , 2017, 252, 919-926.	7.8	107
9	Genetically Engineered Phage-Templated MnO <sub>2</sub> Nanowires: Synthesis and Their Application in Electrochemical Glucose Biosensor Operated at Neutral pH Condition. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 13768-13776.	8.0	106
10	A V <sub>2</sub> O <sub>3</sub> -ordered mesoporous carbon composite with novel peroxidase-like activity towards the glucose colorimetric assay. <i>Nanoscale</i> , 2015, 7, 11678-11685.	5.6	100
11	A sensitive acetylcholinesterase biosensor based on gold nanorods modified electrode for detection of organophosphate pesticide. <i>Talanta</i> , 2016, 156-157, 34-41.	5.5	100
12	Amperometric biosensor based on tyrosinase-conjugated polysacchride hybrid film: Selective determination of nanomolar neurotransmitters metabolite of 3,4-dihydroxyphenylacetic acid (DOPAC) in biological fluid. <i>Biosensors and Bioelectronics</i> , 2005, 21, 809-816.	10.1	98
13	Rock salt type NiCo <sub>2</sub> O <sub>3</sub> supported on ordered mesoporous carbon as a highly efficient electrocatalyst for oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2019, 256, 117852.	20.2	96
14	Colorimetric Assay of Bacterial Pathogens Based on Co <sub>3</sub> O <sub>4</sub> Magnetic Nanozymes Conjugated with Specific Fusion Phage Proteins and Magnetophoretic Chromatography. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9090-9097.	8.0	95
15	Specific Probe Selection from Landscape Phage Display Library and Its Application in Enzyme-Linked Immunosorbent Assay of Free Prostate-Specific Antigen. <i>Analytical Chemistry</i> , 2014, 86, 2767-2774.	6.5	94
16	Phage capsid protein-directed MnO <sub>2</sub> nanosheets with peroxidase-like activity for spectrometric biosensing and evaluation of antioxidant behaviour. <i>Chemical Communications</i> , 2017, 53, 5216-5219.	4.1	94
17	Gold nanoprobe functionalized with specific fusion protein selection from phage display and its application in rapid, selective and sensitive colorimetric biosensing of <i>Staphylococcus aureus</i> . <i>Biosensors and Bioelectronics</i> , 2016, 82, 195-203.	10.1	93
18	Porous gold cluster film prepared from Au@BSA microspheres for electrochemical nonenzymatic glucose sensor. <i>Electrochimica Acta</i> , 2014, 138, 109-114.	5.2	82

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19	Microbial surface display of glucose dehydrogenase for amperometric glucose biosensor. <i>Biosensors and Bioelectronics</i> , 2013, 45, 19-24.	10.1	71
20	Gold nanostructures with near-infrared plasmonic resonance: Synthesis and surface functionalization. <i>Coordination Chemistry Reviews</i> , 2017, 336, 28-42.	18.8	71
21	A Label-Free Electrochemical Impedance Cytosensor Based on Specific Peptide-Fused Phage Selected from Landscape Phage Library. <i>Scientific Reports</i> , 2016, 6, 22199.	3.3	70
22	Green tide biomass templated synthesis of molybdenum oxide nanorods supported on carbon as efficient nanozyme for sensitive glucose colorimetric assay. <i>Sensors and Actuators B: Chemical</i> , 2019, 296, 126517.	7.8	70
23	CoO-supported ordered mesoporous carbon nanocomposite based nanozyme with peroxidase-like activity for colorimetric detection of glucose. <i>Process Biochemistry</i> , 2019, 81, 92-98.	3.7	69
24	Yeast Surface Displaying Glucose Oxidase as Whole-Cell Biocatalyst: Construction, Characterization, and Its Electrochemical Glucose Sensing Application. <i>Analytical Chemistry</i> , 2013, 85, 6107-6112.	6.5	68
25	Effect of solution pH and ionic strength on the stability of poly(acrylic acid)-encapsulated multiwalled carbon nanotubes aqueous dispersion and its application for NADH sensor. <i>Biosensors and Bioelectronics</i> , 2006, 22, 694-699.	10.1	67
26	Recent advances in gold nanostructures based biosensing and bioimaging. <i>Coordination Chemistry Reviews</i> , 2018, 370, 1-21.	18.8	67
27	Bio-mimetic Nanostructure Self-assembled from Au@Ag Heterogeneous Nanorods and Phage Fusion Proteins for Targeted Tumor Optical Detection and Photothermal Therapy. <i>Scientific Reports</i> , 2014, 4, 6808.	3.3	60
28	Sensitive colorimetric immunoassay of <i>Vibrio parahaemolyticus</i> based on specific nonapeptide probe screening from a phage display library conjugated with MnO <sub>2</sub> nanosheets with peroxidase-like activity. <i>Nanoscale</i> , 2018, 10, 2825-2833.	5.6	60
29	Sensitive detection of maltose and glucose based on dual enzyme-displayed bacteria electrochemical biosensor. <i>Biosensors and Bioelectronics</i> , 2017, 87, 25-30.	10.1	58
30	Recent advances in the synthesis of spherical and nanoMOF-derived multifunctional porous carbon for nanomedicine applications. <i>Coordination Chemistry Reviews</i> , 2019, 391, 69-89.	18.8	58
31	Controllable Display of Sequential Enzymes on Yeast Surface with Enhanced Biocatalytic Activity toward Efficient Enzymatic Biofuel Cells. <i>Journal of the American Chemical Society</i> , 2020, 142, 3222-3230.	13.7	58
32	Co-immobilization of glucoamylase and glucose oxidase for electrochemical sequential enzyme electrode for starch biosensor and biofuel cell. <i>Biosensors and Bioelectronics</i> , 2014, 51, 158-163.	10.1	57
33	Amperometric l-glutamate biosensor based on bacterial cell-surface displayed glutamate dehydrogenase. <i>Analytica Chimica Acta</i> , 2015, 884, 83-89.	5.4	54
34	Enhanced Performance of a Glucose/O <sub>2</sub> Biofuel Cell Assembled with Laccase-Covalently Immobilized Three-Dimensional Macroporous Gold Film-Based Biocathode and Bacterial Surface Displayed Glucose Dehydrogenase-Based Bioanode. <i>Analytical Chemistry</i> , 2014, 86, 6057-6063.	6.5	46
35	Gold nanoplates with superb photothermal efficiency and peroxidase-like activity for rapid and synergistic antibacterial therapy. <i>Chemical Communications</i> , 2021, 57, 1133-1136.	4.1	46
36	Construction of Xylose Dehydrogenase Displayed on the Surface of Bacteria Using Ice Nucleation Protein for Sensitive Xylose Detection. <i>Analytical Chemistry</i> , 2012, 84, 275-282.	6.5	43

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37	An integrated device of enzymatic biofuel cells and supercapacitor for both efficient electric energy conversion and storage. <i>Electrochimica Acta</i> , 2017, 245, 303-308.	5.2	42
38	Rock salt type NiO assembled on ordered mesoporous carbon as peroxidase mimetic for colorimetric assay of gallic acid. <i>Talanta</i> , 2019, 201, 406-412.	5.5	42
39	Simultaneously improving stability and specificity of cell surface displayed glucose dehydrogenase mutants to construct whole-cell biocatalyst for glucose biosensor application. <i>Bioresource Technology</i> , 2013, 147, 492-498.	9.6	41
40	Direct energy conversion from xylose using xylose dehydrogenase surface displayed bacteria based enzymatic biofuel cell. <i>Biosensors and Bioelectronics</i> , 2013, 44, 160-163.	10.1	41
41	Ocean green tide derived hierarchical porous carbon with bi-enzyme mimic activities and their application for sensitive colorimetric and fluorescent biosensing. <i>Sensors and Actuators B: Chemical</i> , 2020, 312, 127979.	7.8	39
42	Novel Cell-Inorganic Hybrid Catalytic Interfaces with Enhanced Enzymatic Activity and Stability for Sensitive Biosensing of Paraoxon. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 6894-6901.	8.0	38
43	Copper sulfide nanoclusters with multi-enzyme-like activities and its application in acid phosphatase sensing based on enzymatic cascade reaction. <i>Talanta</i> , 2021, 233, 122594.	5.5	35
44	Selected landscape phage probe as selective recognition interface for sensitive total prostate-specific antigen immunosensor. <i>Biosensors and Bioelectronics</i> , 2018, 106, 1-6.	10.1	34
45	Peptide Microarray with Ligands at High Density Based on Symmetrical Carrier Landscape Phage for Detection of Cellulase. <i>Analytical Chemistry</i> , 2014, 86, 5844-5850.	6.5	30
46	Histidine-triggered turning-on of gold/copper nanocluster fluorescence for the sensitive and selective detection of histidine. <i>Chemical Communications</i> , 2020, 56, 11637-11640.	4.1	28
47	Specific ligands for classical swine fever virus screened from landscape phage display library. <i>Antiviral Research</i> , 2014, 109, 68-71.	4.1	27
48	Rational design of xylose dehydrogenase for improved thermostability and its application in development of efficient enzymatic biofuel cell. <i>Enzyme and Microbial Technology</i> , 2016, 84, 78-85.	3.2	26
49	Functional cell surface displaying of acetylcholinesterase for spectrophotometric sensing organophosphate pesticide. <i>Sensors and Actuators B: Chemical</i> , 2019, 279, 483-489.	7.8	26
50	An efficient strategy to synthesize a multifunctional ferroferric oxide core@ $\text{dye}/\text{SiO}_2/\text{Au}$ shell nanocomposite and its targeted tumor theranostics. <i>Journal of Materials Chemistry B</i> , 2017, 5, 8209-8218.	5.8	21
51	Hierarchical porous MoS <sub>2</sub> particles: excellent multi-enzyme-like activities, mechanism and its sensitive phenol sensing based on inhibition of sulfite oxidase mimics. <i>Journal of Hazardous Materials</i> , 2022, 425, 128053.	12.4	21
52	Amorphous nickel coating on carbon nanotubes supported Pt nanoparticles as a highly durable and active electrocatalyst for methanol oxidation reaction. <i>Journal of Electroanalytical Chemistry</i> , 2020, 856, 113739.	3.8	20
53	Selective colorimetric sensing of sub-nanomolar $\text{Hg}^{2+}$ based on its significantly enhancing peroxidase mimics of silver/copper nanoclusters. <i>Analyst</i> , 2021, 146, 4630-4635.	3.5	20
54	MnO <sub>2</sub> /multi-walled carbon nanotubes based nanocomposite with enhanced electrocatalytic activity for sensitive amperometric glucose biosensing. <i>Journal of Electroanalytical Chemistry</i> , 2020, 878, 114602.	3.8	19

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55	Specific heptapeptide screened from pIII phage display library for sensitive enzyme-linked chemiluminescence immunoassay of vascular endothelial growth factor. <i>Sensors and Actuators B: Chemical</i> , 2021, 333, 129555.	7.8	19
56	Vanadium nitride@carbon nanofiber composite: Synthesis, cascade enzyme mimics and its sensitive and selective colorimetric sensing of superoxide anion. <i>Biosensors and Bioelectronics</i> , 2022, 210, 114285.	10.1	19
57	Screening of peptide selectively recognizing prostate-specific antigen and its application in detecting total prostate-specific antigen. <i>Sensors and Actuators B: Chemical</i> , 2022, 367, 132009.	7.8	19
58	Microbial surface displayed enzymes based biofuel cell utilizing degradation products of lignocellulosic biomass for direct electrical energy. <i>Bioresource Technology</i> , 2015, 192, 821-825.	9.6	18
59	Cobalt-doped MoS <sub>2</sub> nanocomposite with NADH oxidase mimetic activity and its application in colorimetric biosensing of NADH. <i>Process Biochemistry</i> , 2021, 111, 178-185.	3.7	18
60	Microbial surface displaying formate dehydrogenase and its application in optical detection of formate. <i>Enzyme and Microbial Technology</i> , 2016, 91, 59-65.	3.2	16
61	Multilayer assembly of calf thymus DNA and poly(4-vinylpyridine) derivative bearing [Os(bpy) <sub>2</sub> Cl] <sub>2</sub> <sup>+</sup> redox behavior within DNA film. <i>Bioelectrochemistry</i> , 2005, 67, 1-6.	4.6	15
62	A simple electrochemical immunosensor based on worm-like platinum for highly sensitive determination of alpha-fetoprotein. <i>Bioelectrochemistry</i> , 2021, 140, 107804.	4.6	15
63	Cu <sub>2</sub> O nanorods with excellent regenerable NADH peroxidase mimics and its application for selective and sensitive fluorimetric ethanol sensing. <i>Analytica Chimica Acta</i> , 2021, 1186, 339126.	5.4	14
64	CoO <sub>x</sub> /MoO <sub>y</sub> -anchored multi-wrinkled biomass carbon as a promising material for rapidly selective methyl blue removal. <i>Journal of Materials Science</i> , 2019, 54, 11024-11036.	3.7	11
65	Green electroless plating of cuprous oxide nanoparticles onto carbon nanotubes as efficient electrocatalysts for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2021, 548, 149218.	6.1	11
66	Hybrid of NiO-Ni <sub>12</sub> P <sub>5</sub> /N-doped carbon nanotubes as non-noble electrocatalyst for efficient hydrogen evolution reaction. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 608, 125613.	4.7	9
67	V <sub>4</sub> P <sub>6.98</sub> /VO(PO <sub>3</sub> ) <sub>2</sub> as an Efficient Non-Noble Metal Catalyst for Electrochemical Hydrogen Evolution in Alkaline Electrolyte. <i>ChemElectroChem</i> , 2019, 6, 1329-1332.	3.4	8
68	The <i>in situ</i> growth of Cu <sub>2</sub> O with a honeycomb structure on a roughed graphite paper for the efficient electroreduction of CO <sub>2</sub> to C <sub>2</sub> H <sub>4</sub> . <i>Catalysis Science and Technology</i> , 2021, 11, 6742-6749.	4.1	8
69	Facile Synthesis of Water-Dispersed Photoluminescent Gold(I)-Alkanethiolate Nanoparticles via Aggregation-Induced Emission and Their Application in Cell Imaging. <i>ACS Applied Nano Materials</i> , 2018, 1, 6641-6648.	5.0	7
70	Amplified Peroxidase-like Activity of Co <sup>2+</sup> Using 8-Hydroxyquinoline and Its Application for Ultrasensitive Colorimetric Detection of Cloiquinol. <i>Chemistry - an Asian Journal</i> , 2021, 16, 3957-3962.	3.3	6
71	A membraneless starch/O <sub>2</sub> biofuel cell based on bacterial surface regulable displayed sequential enzymes of glucoamylase and glucose dehydrogenase. <i>Biosensors and Bioelectronics</i> , 2022, 207, 114197.	10.1	6
72	Sensitive electrochemical sequential enzyme biosensor for glucose and starch based on glucoamylase- and glucose oxidase-controllably co-displayed yeast recombinant. <i>Analytica Chimica Acta</i> , 2022, 1221, 340173.	5.4	5

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73	Tumor Microenvironment-Directed Multisensitive Nanorobotics for Synergistic Photothermal Therapy/Chemotherapy. ACS Applied Bio Materials, 2020, 3, 3345-3353.	4.6	4
74	Bimetallic copper-cerium nanoclusters: Assembly-induced aggregation into nanowire network and cysteine-triggered strong red fluorescence turn-on for highly sensitive and selective cysteine sensing. Sensors and Actuators B: Chemical, 2022, 356, 131356.	7.8	4
75	Boosting the Peroxidase-like Activity of Cobalt Ions by Amino Acid-based Biological Species and Its Applications. Chemistry - an Asian Journal, 2020, 15, 1067-1073.	3.3	3
76	Facile one-pot synthesis of Mn <sub>3</sub> O <sub>4</sub> nanorods and their analytical application. New Journal of Chemistry, 2021, 45, 17576-17583.	2.8	2
77	Accelerating the peroxidase-like activity of Co <sup>2+</sup> by quinaldic acid: Mechanism and its analytical applications. Talanta, 2022, 239, 123080.	5.5	2