

# Xiao-hua Zhang

## List of Publications by Year in descending order

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80  
papers

3,121  
citations

147801

31  
h-index

168389

53  
g-index

81  
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81  
docs citations

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times ranked

3694  
citing authors

#	ARTICLE	IF	CITATIONS
1	Preparation of NiCoP Hollow Quasi-Polyhedra and Their Electrocatalytic Properties for Hydrogen Evolution in Alkaline Solution. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 5982-5991.	8.0	217
2	Simultaneous electrochemical detection of ascorbic acid, dopamine and uric acid based on nitrogen doped porous carbon nanopolyhedra. <i>Journal of Materials Chemistry B</i> , 2013, 1, 2742.	5.8	166
3	Ultrasensitive Electrochemical Detection of Nucleic Acids Based on the Dual-Signaling Electrochemical Ratiometric Method and Exonuclease III-Assisted Target Recycling Amplification Strategy. <i>Analytical Chemistry</i> , 2015, 87, 7291-7296.	6.5	143
4	Nanomaterials as signal amplification elements in DNA-based electrochemical sensing. <i>Nano Today</i> , 2014, 9, 197-211.	11.9	134
5	Nitrogen-Doped Porous Carbon-ZnO Nanopolyhedra Derived from ZIF-8: New Materials for Photoelectrochemical Biosensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42482-42491.	8.0	130
6	Triple-Helix Molecular Switch Electrochemical Ratiometric Biosensor for Ultrasensitive Detection of Nucleic Acids. <i>Analytical Chemistry</i> , 2017, 89, 8830-8835.	6.5	116
7	A ratiometric electrochemical biosensor for sensitive detection of Hg <sup>2+</sup> based on thymine-Hg <sup>2+</sup> complex structure. <i>Analytica Chimica Acta</i> , 2015, 853, 242-248.	5.4	111
8	Highly Selective and Sensitive Photoelectrochemical Sensing Platform for VEGF165 Assay Based on the Switching of Photocurrent Polarity of CdS QDs by Porous Cu <sub>2</sub> O-CuO Flower. <i>Analytical Chemistry</i> , 2020, 92, 1189-1196.	6.5	99
9	Sensitive electrochemical assay of alkaline phosphatase activity based on TdT-mediated hemin/G-quadruplex DNAzyme nanowires for signal amplification. <i>Biosensors and Bioelectronics</i> , 2017, 87, 970-975.	10.1	77
10	Sensitive Dual-Mode Biosensors for CYFRA21-1 Assay Based on the Dual-Signaling Electrochemical Ratiometric Strategy and "Off-Off" PEC Method. <i>Analytical Chemistry</i> , 2021, 93, 6801-6807.	6.5	74
11	A novel electrochemical aptasensor for bisphenol A assay based on triple-signaling strategy. <i>Biosensors and Bioelectronics</i> , 2016, 79, 22-28.	10.1	72
12	Co <sub>3</sub> O <sub>4</sub> -Au Polyhedra: A Multifunctional Signal Amplifier for Sensitive Photoelectrochemical Assay. <i>Analytical Chemistry</i> , 2018, 90, 9480-9486.	6.5	70
13	Exonuclease III-assisted cascade signal amplification strategy for label-free and ultrasensitive electrochemical detection of nucleic acids. <i>Biosensors and Bioelectronics</i> , 2017, 87, 732-736.	10.1	62
14	A new electrochemical aptasensor for sensitive assay of a protein based on the dual-signaling electrochemical ratiometric method and DNA walker strategy. <i>Chemical Communications</i> , 2018, 54, 10359-10362.	4.1	60
15	Active site and intermediate modulation of 3D CoSe <sub>2</sub> nanosheet array on Ni foam by Mo doping for high-efficiency overall water splitting in alkaline media. <i>Chemical Engineering Journal</i> , 2021, 417, 128055.	12.7	60
16	Fast HPLC-DAD quantification of nine polyphenols in honey by using second-order calibration method based on trilinear decomposition algorithm. <i>Food Chemistry</i> , 2013, 138, 62-69.	8.2	54
17	Fe and S co-doped N-enriched hierarchical porous carbon polyhedron as efficient non-noble-metal electrocatalyst toward oxygen reduction reaction in both alkaline and acidic medium. <i>Electrochimica Acta</i> , 2019, 298, 570-579.	5.2	54
18	A novel signal-off photoelectrochemical biosensor for M.SssI MTase activity assay based on GQDs@ZIF-8 polyhedra as signal quencher. <i>Biosensors and Bioelectronics</i> , 2020, 150, 111861.	10.1	53

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19	A simple label-free electrochemical aptasensor for dopamine detection. RSC Advances, 2014, 4, 52250-52255.	3.6	45
20	A sensitive photoelectrochemical assay of miRNA-155 based on a CdSe QDs//NPC-ZnO polyhedra photocurrent-direction switching system and target-triggered strand displacement amplification strategy. Chemical Communications, 2019, 55, 2182-2185.	4.1	43
21	Label-free and near-zero-background-noise photoelectrochemical assay of methyltransferase activity based on a Bi <sub>2</sub> S <sub>3</sub> /Ti <sub>3</sub> C <sub>2</sub> Schottky junction. Chemical Communications, 2020, 56, 5799-5802.	4.1	40
22	Spontaneous deposition of Ir nanoparticles on 2D siloxene as a high-performance HER electrocatalyst with ultra-low Ir loading. Chemical Communications, 2020, 56, 4824-4827.	4.1	39
23	Peptide Cleavage-Mediated and Environmentally Friendly Photocurrent Polarity Switching System for Prostate-Specific Antigen Assay. Analytical Chemistry, 2021, 93, 1076-1083.	6.5	39
24	Highly Selective and Sensitive microRNA-210 Assay Based on Dual-Signaling Electrochemical and Photocurrent-Polarity-Switching Strategies. Analytical Chemistry, 2021, 93, 14272-14279.	6.5	39
25	Toughening of cycloaliphatic epoxy resin by multiwalled carbon nanotubes. Journal of Applied Polymer Science, 2008, 110, 1351-1357.	2.6	38
26	PMo12-functionalized Graphene nanosheet-supported PtRu nanocatalysts for methanol electro-oxidation. Journal of Solid State Electrochemistry, 2010, 14, 2267-2274.	2.5	38
27	CuO/ZnO heterojunction derived from Cu <sup>2+</sup> -doped ZIF-8: A new photoelectric material for ultrasensitive PEC immunoassay of CA125 with near-zero background noise. Analytica Chimica Acta, 2020, 1099, 75-84.	5.4	35
28	Preparation of polyaniline/tin dioxide composites and their application in methanol electro-oxidation. Journal of Solid State Electrochemistry, 2010, 14, 169-174.	2.5	34
29	A new electrochemical immunosensor for sensitive detection of prion based on Prussian blue analogue. Talanta, 2018, 179, 726-733.	5.5	34
30	Carbonization of ionic liquid polymer-functionalized carbon nanotubes for high dispersion of PtRu nanoparticles and their electrocatalytic oxidation of methanol. Journal of Materials Chemistry, 2012, 22, 13085.	6.7	33
31	A new photoelectrochemical immunosensor for ultrasensitive assay of prion protein based on hemin-induced photocurrent direction switching. Biosensors and Bioelectronics, 2019, 132, 55-61.	10.1	33
32	Self-assembly synthesis of a hierarchical structure using hollow nitrogen-doped carbon spheres as spacers to separate the reduced graphene oxide for simultaneous electrochemical determination of ascorbic acid, dopamine and uric acid. Analytical Methods, 2013, 5, 3591.	2.7	32
33	A ratiometric electrochemical aptasensor for sensitive detection of protein based on aptamer-target-aptamer sandwich structure. Journal of Electroanalytical Chemistry, 2014, 732, 61-65.	3.8	32
34	3D amorphous NiFe LDH nanosheets electrodeposited on <i>in situ</i> grown NiCoP@NC on nickel foam for remarkably enhanced OER electrocatalytic performance. Dalton Transactions, 2020, 49, 4896-4903.	3.3	32
35	Smart protein biogate as a mediator to regulate competitive host-guest interaction for sensitive ratiometric electrochemical assay of prion. Scientific Reports, 2015, 5, 16015.	3.3	30
36	Template-synthesis and electrochemical properties of urchin-like NiCoP electrocatalyst for hydrogen evolution reaction. Electrochimica Acta, 2017, 249, 301-307.	5.2	29

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37	Low-cost high-performance hydrogen evolution electrocatalysts based on Pt-CoP polyhedra with low Pt loading in both alkaline and neutral media. Dalton Transactions, 2019, 48, 8920-8930.	3.3	29
38	Facile solution synthesis of FeN <sub>x</sub> atom clusters supported on nitrogen-enriched graphene carbon aerogels with superb electrocatalytic performance toward the oxygen reduction reaction. Journal of Materials Chemistry A, 2019, 7, 25557-25566.	10.3	29
39	Platinum Nanoparticles Encapsulated in Nitrogen-Doped Mesoporous Carbons as Methanol-Tolerant Oxygen Reduction Electrocatalysts. ChemElectroChem, 2015, 2, 404-411.	3.4	28
40	Synthesis of novel phosphorous-containing biphenol, 2-(5,)-Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (5-dimethyl-4-phenyl-2-oxy-1,3, flame-retardant in epoxy resin. Journal of Applied Polymer Science, 2006, 102, 3842-3847.	2.6	27
41	A new photoelectrochemical biosensor for ultrasensitive determination of nucleic acids based on a three-stage cascade signal amplification strategy. Analyst, The, 2018, 143, 2799-2806.	3.5	27
42	Zinc-Air Battery-Assisted Self-Powered PEC Sensors for Sensitive Assay of PTP1B Activity Based on Perovskite Quantum Dots Encapsulated in Vinyl-Functionalized Covalent Organic Frameworks. Analytical Chemistry, 2022, 94, 9844-9850.	6.5	27
43	Highly-selective electrochemical determination of catechol based on 3-aminophenylboronic acid-3,4,9,10-perylene tetracarboxylic acid functionalized carbon nanotubes modified electrode. Analytical Methods, 2014, 6, 718-724.	2.7	26
44	One-pot synthesis of highly dispersed palladium nanoparticles on acetylenic ionic liquid polymer functionalized carbon nanotubes for electrocatalytic oxidation of glucose. Journal of Solid State Electrochemistry, 2012, 16, 759-766.	2.5	24
45	Chemometrics-enhanced high performance liquid chromatography-diode array detection strategy for simultaneous determination of eight co-eluted compounds in ten kinds of Chinese teas using second-order calibration method based on alternating trilinear decomposition algorithm. Journal of Chromatography A, 2014, 1364, 151-162.	3.7	24
46	A label-free and cascaded dual-signaling amplified electrochemical aptasensing platform for sensitive prion assay. Biosensors and Bioelectronics, 2016, 85, 471-478.	10.1	24
47	A label-free and blocker-free photoelectrochemical strategy for highly sensitive caspase-3 assay. Chemical Communications, 2018, 54, 4830-4833.	4.1	24
48	A new electrochemical immunoassay for prion protein based on hybridization chain reaction with hemin/G-quadruplex DNAzyme. Talanta, 2018, 182, 292-298.	5.5	23
49	Highly Selective Photoelectrochemical Assay of Arsenate Based on Magnetic Co <sub>3</sub> O <sub>4</sub> -Fe <sub>3</sub> O <sub>4</sub> Cubes and the Negative-Background Signal Strategy. Analytical Chemistry, 2022, 94, 1874-1881.	6.5	23
50	DNA-linked CdSe QDs/AGQDs Z-scheme system: Ultrasensitive and highly selective photoelectrochemical sensing platform with negative background signal. Sensors and Actuators B: Chemical, 2020, 305, 127480.	7.8	22
51	Sensitive photoelectrochemical assay of Pb <sup>2+</sup> based on DNAzyme-induced disassembly of the Z-scheme-TiO <sub>2</sub> /Au/CdS QDs system. Chemical Communications, 2020, 56, 8261-8264.	4.1	22
52	Quantitative fluorescence kinetic analysis of NADH and FAD in human plasma using three- and four-way calibration methods capable of providing the second-order advantage. Analytica Chimica Acta, 2016, 910, 36-44.	5.4	21
53	An electrochemical biosensor for sensitive detection of Hg <sup>2+</sup> based on exonuclease III-assisted target recycling and hybridization chain reaction amplification strategies. Analytical Methods, 2016, 8, 2106-2111.	2.7	21
54	A flexible trilinear decomposition algorithm for three-way calibration based on the trilinear component model and a theoretical extension of the algorithm to the multilinear component model. Analytica Chimica Acta, 2015, 878, 63-77.	5.4	17

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55	A photocurrent-polarity-switching biosensor for highly selective assay of mucin 1 based on target-induced hemin transfer from ZrO <sub>2</sub> hollow spheres to G-quadruplex nanowires. <i>Biosensors and Bioelectronics</i> , 2021, 192, 113547.	10.1	17
56	A label-free photoelectrochemical biosensor with ultra-low-background noise for lead ion assay based on the Cu <sub>2</sub> O-CuO-TiO <sub>2</sub> heterojunction. <i>Analytica Chimica Acta</i> , 2022, 1195, 339456.	5.4	17
57	Measuring estriol and estrone simultaneously in liquid cosmetic samples using second-order calibration coupled with excitation-emission matrix fluorescence based on region selection. <i>Analytical Methods</i> , 2012, 4, 222-229.	2.7	16
58	Target-induced photocurrent-polarity switching: a highly selective and sensitive photoelectrochemical sensing platform. <i>Chemical Communications</i> , 2019, 55, 8939-8942.	4.1	16
59	One-step integration of amorphous RuB <sub>x</sub> and crystalline Ru nanoparticles into B/N-doped porous carbon polyhedra for robust electrocatalytic activity towards the HER in both acidic and basic media. <i>Journal of Materials Chemistry A</i> , 2022, 10, 4181-4190.	10.3	16
60	One-pot synthesis of PtRh <sub>2</sub> -CD-CNTs for methanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 14866-14874.	7.1	15
61	Synthesis of high-concentration B and N co-doped porous carbon polyhedra and their supercapacitive properties. <i>RSC Advances</i> , 2015, 5, 77527-77533.	3.6	15
62	A new electrochemical aptasensor based on electrocatalytic property of graphene toward ascorbic acid oxidation. <i>Talanta</i> , 2015, 134, 699-704.	5.5	13
63	Amplified impedimetric DNA sensor based on graphene oxide-phenylboronic acid for sensitive detection of bleomycins. <i>New Journal of Chemistry</i> , 2014, 38, 2284.	2.8	12
64	Solid-state grinding/low-temperature calcining synthesis of carbon coated MnO <sub>2</sub> nanorods and their electrochemical capacitive property. <i>New Journal of Chemistry</i> , 2015, 39, 4731-4736.	2.8	12
65	High-performance non-enzymatic catalysts based on 3D hierarchical hollow porous Co <sub>3</sub> O <sub>4</sub> nanododecahedras in situ decorated on carbon nanotubes for glucose detection and biofuel cell application. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 2019-2029.	3.7	12
66	A sensitive photoelectrochemical methyltransferase activity assay based on a novel Z-scheme CdSe QD/afQD heterojunction and multiple signal amplification strategies. <i>Chemical Communications</i> , 2019, 55, 8166-8169.	4.1	12
67	A combined theoretical and experimental study for the chiral discrimination of naproxen enantiomers by molecular modeling and second-order standard addition method. <i>Analytical Methods</i> , 2013, 5, 710.	2.7	11
68	Electrochemical determination of bleomycins based on dual-amplification of 4-mercaptophenyl boronic acid-capped gold nanoparticles and dopamine-capped gold nanoparticles. <i>Analytical Methods</i> , 2014, 6, 6893.	2.7	10
69	Enhanced Electrochemical Sensing for Persistent Organic Pollutants by Nanohybrids of Graphene Nanosheets that are Noncovalently Functionalized with Cyclodextrin. <i>ChemPlusChem</i> , 2012, 77, 844-849.	2.8	8
70	Carbon nanotube-ionic liquid composite gel based high-performance bioanode for glucose/O <sub>2</sub> biofuel cells. <i>Analytical Methods</i> , 2015, 7, 5060-5066.	2.7	8
71	Second-order calibration applied to quantification of two active components of Schisandra chinensis in complex matrix. <i>Journal of Pharmaceutical Analysis</i> , 2012, 2, 241-248.	5.3	7
72	Ultrasonic cavitation assisted hydrogen implosion synthesis of Pt nanoparticles/nitrogen-doped graphene nanohybrid scrolls and their electrocatalytic oxidation of methanol. <i>Ionics</i> , 2015, 21, 1287-1294.	2.4	7

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73	A high-performance bioanode based on a nitrogen-doped short tubular carbon loaded Au nanoparticle co-immobilized mediator and glucose oxidase for glucose/O <sub>2</sub> biofuel cells. RSC Advances, 2016, 6, 29142-29148.	3.6	7
74	Synthesis and characterization of epoxy film cured with phosphorous-containing phenolic resin. Journal of Applied Polymer Science, 2007, 104, 3813-3817.	2.6	5
75	Ethanol electrooxidation on platinum particles dispersed on poly(neutral red) film. Journal of Applied Electrochemistry, 2008, 38, 1665-1670.	2.9	5
76	Facile Hierarchical Growth of N-Doped Carbon-Coated NiCo <sub>2</sub> O <sub>4</sub> Nanowire Arrays on Ni Foam for Advanced Supercapacitor Electrodes. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	4
77	Synthesis and thermal stability of a novel cycloaliphatic epoxy resin system. Journal of Applied Polymer Science, 2008, 108, 518-522.	2.6	3
78	Hierarchical porous carbon materials prepared by direct carbonization of Al-PCP as a Pt-catalyst support for the oxygen reduction reaction. New Journal of Chemistry, 2017, 41, 7432-7437.	2.8	3
79	Sensitive electrochemical sensor of anthracene-9-carboxylic acid using an electropolymerized film modified glassy carbon electrode. Analytical Methods, 2013, 5, 1881.	2.7	1
80	Chemometrics-assisted excitation-emission fluorescence spectroscopy for simultaneous determination of ethoxyquin and tert-butylhydroquinone in biological fluid samples. Science China Chemistry, 2013, 56, 664-671.	8.2	1