

Ai-Liu Liu

List of Publications by Year in descending order

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85
papers

4,692
citations

81900

39
h-index

98798

67
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85
all docs

85
docs citations

85
times ranked

5727
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of the Peroxidase-Like Activity of Unmodified, Amino-Modified, and Citrate-Capped Gold Nanoparticles. <i>ChemPhysChem</i> , 2012, 13, 1199-1204.	2.1	253
2	Citrate-Capped Platinum Nanoparticle as a Smart Probe for Ultrasensitive Mercury Sensing. <i>Analytical Chemistry</i> , 2014, 86, 10955-10960.	6.5	248
3	In Situ Growth of Porous Platinum Nanoparticles on Graphene Oxide for Colorimetric Detection of Cancer Cells. <i>Analytical Chemistry</i> , 2014, 86, 2711-2718.	6.5	233
4	Fabrication of Water-Soluble, Green-Emitting Gold Nanoclusters with a 65% Photoluminescence Quantum Yield via Host-Guest Recognition. <i>Chemistry of Materials</i> , 2017, 29, 1362-1369.	6.7	209
5	Peroxidase-Like Activity of Cupric Oxide Nanoparticle. <i>ChemCatChem</i> , 2011, 3, 1151-1154.	3.7	190
6	Chitosan-stabilized platinum nanoparticles as effective oxidase mimics for colorimetric detection of acid phosphatase. <i>Nanoscale</i> , 2017, 9, 10292-10300.	5.6	187
7	Fluorescent hydrogen peroxide sensor based on cupric oxide nanoparticles and its application for glucose and L-lactate detection. <i>Biosensors and Bioelectronics</i> , 2014, 61, 374-378.	10.1	158
8	Label-free electrochemical DNA biosensor for rapid detection of multidrug resistance gene based on Au nanoparticles/toluidine blue-graphene oxide nanocomposites. <i>Sensors and Actuators B: Chemical</i> , 2015, 207, 269-276.	7.8	144
9	Development of electrochemical DNA biosensors. <i>TrAC - Trends in Analytical Chemistry</i> , 2012, 37, 101-111.	11.4	143
10	Enhanced chemiluminescence of the luminol-hydrogen peroxide system by colloidal cupric oxide nanoparticles as peroxidase mimic. <i>Talanta</i> , 2012, 99, 643-648.	5.5	125
11	Simultaneous voltammetric determination of norepinephrine, ascorbic acid and uric acid on polycarboxylic acid modified glassy carbon electrode. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1488-1495.	10.1	118
12	Methionine-directed fabrication of gold nanoclusters with yellow fluorescent emission for Cu ²⁺ sensing. <i>Biosensors and Bioelectronics</i> , 2015, 65, 397-403.	10.1	116
13	Colorimetric detection of urea, urease, and urease inhibitor based on the peroxidase-like activity of gold nanoparticles. <i>Analytica Chimica Acta</i> , 2016, 915, 74-80.	5.4	113
14	Chemiluminescent cholesterol sensor based on peroxidase-like activity of cupric oxide nanoparticles. <i>Biosensors and Bioelectronics</i> , 2013, 43, 1-5.	10.1	103
15	Choline and acetylcholine detection based on peroxidase-like activity and protein antifouling property of platinum nanoparticles in bovine serum albumin scaffold. <i>Biosensors and Bioelectronics</i> , 2014, 62, 331-336.	10.1	98
16	Platinum nanoparticles/graphene-oxide hybrid with excellent peroxidase-like activity and its application for cysteine detection. <i>Analyst</i> , 2015, 140, 5251-5256.	3.5	95
17	Self-cascade reaction catalyzed by CuO nanoparticle-based dual-functional enzyme mimics. <i>Biosensors and Bioelectronics</i> , 2017, 97, 21-25.	10.1	91
18	pH-Sensitive gold nanoclusters: preparation and analytical applications for urea, urease, and urease inhibitor detection. <i>Chemical Communications</i> , 2015, 51, 7847-7850.	4.1	88

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19	Colorimetric detection of sulfide based on target-induced shielding against the peroxidase-like activity of gold nanoparticles. <i>Analytica Chimica Acta</i> , 2014, 852, 218-222.	5.4	86
20	A nonenzymatic amperometric glucose sensor based on three dimensional nanostructure gold electrode. <i>Sensors and Actuators B: Chemical</i> , 2015, 212, 72-77.	7.8	82
21	Facile electrochemiluminescence sensing platform based on high-quantum-yield gold nanocluster probe for ultrasensitive glutathione detection. <i>Biosensors and Bioelectronics</i> , 2018, 105, 71-76.	10.1	74
22	A sandwich-type DNA biosensor based on electrochemical co-reduction synthesis of graphene-three dimensional nanostructure gold nanocomposite films. <i>Analytica Chimica Acta</i> , 2013, 767, 50-58.	5.4	71
23	Rapid method for design and fabrication of passive micromixers in microfluidic devices using a direct-printing process. <i>Lab on A Chip</i> , 2005, 5, 974.	6.0	67
24	Water-soluble gold nanoclusters prepared by protein-ligand interaction as fluorescent probe for real-time assay of pyrophosphatase activity. <i>Biosensors and Bioelectronics</i> , 2016, 83, 1-8.	10.1	67
25	An ammonia-based etchant for attaining copper nanoclusters with green fluorescence emission. <i>Nanoscale</i> , 2018, 10, 6467-6473.	5.6	62
26	Colorimetric sensor for thiocyanate based on anti-aggregation of citrate-capped gold nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2014, 191, 479-484.	7.8	60
27	Bare gold nanoparticles as facile and sensitive colorimetric probe for melamine detection. <i>Analyst</i> , 2012, 137, 5382.	3.5	59
28	A colorimetric assay for sensitive detection of hydrogen peroxide and glucose in microfluidic paper-based analytical devices integrated with starch-iodide-gelatin system. <i>Talanta</i> , 2019, 200, 511-517.	5.5	58
29	Bovine Serum Albumin-Based Probe Carrier Platform for Electrochemical DNA Biosensing. <i>Analytical Chemistry</i> , 2013, 85, 273-277.	6.5	54
30	Synthesis and Peroxidase-Like Activity of Salt-Resistant Platinum Nanoparticles by Using Bovine Serum Albumin as the Scaffold. <i>ChemCatChem</i> , 2014, 6, 1543-1548.	3.7	53
31	Colorimetric sensor based on dual-functional gold nanoparticles: Analyte-recognition and peroxidase-like activity. <i>Food Chemistry</i> , 2014, 147, 257-261.	8.2	49
32	Enzyme-amplified electrochemical biosensor for detection of PML1-RAR α fusion gene based on hairpin LNA probe. <i>Biosensors and Bioelectronics</i> , 2011, 28, 277-283.	10.1	48
33	Detection EGFR exon 19 status of lung cancer patients by DNA electrochemical biosensor. <i>Biosensors and Bioelectronics</i> , 2016, 80, 411-417.	10.1	47
34	Plastified poly(ethylene terephthalate) (PET)-toner microfluidic chip by direct-printing integrated with electrochemical detection for pharmaceutical analysis. <i>Talanta</i> , 2006, 68, 1303-1308.	5.5	46
35	Label-free electrochemical immunosensor based on multi-functional gold nanoparticles-polydopamine-thionine-graphene oxide nanocomposites film for determination of alpha-fetoprotein. <i>Journal of Electroanalytical Chemistry</i> , 2014, 712, 89-95.	3.8	46
36	MoOx quantum dots with peroxidase-like activity on microfluidic paper-based analytical device for rapid colorimetric detection of H ₂ O ₂ released from PC12 cells. <i>Sensors and Actuators B: Chemical</i> , 2020, 305, 127512.	7.8	46

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37	Electrochemical Oxidation of Luteolin at a Glassy Carbon Electrode and Its Application in Pharmaceutical Analysis. <i>Chemical and Pharmaceutical Bulletin</i> , 2008, 56, 745-748.	1.3	45
38	Electrochemical biosensor based on nanogold-modified poly-eriochrome black T film for BCR/ABL fusion gene assay by using hairpin LNA probe. <i>Talanta</i> , 2010, 80, 2113-2119.	5.5	45
39	Fenton reaction-mediated fluorescence quenching of N-acetyl-L-cysteine-protected gold nanoclusters: analytical applications of hydrogen peroxide, glucose, and catalase detection. <i>Analyst, The</i> , 2015, 140, 7650-7656.	3.5	43
40	Highly sensitive colorimetric sensor for detection of iodine ions using carboxylated chitosan-coated palladium nanozyme. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 499-506.	3.7	38
41	Study on the photocatalytic reaction kinetics in a TiO ₂ nanoparticles coated microreactor integrated microfluidics device. <i>Talanta</i> , 2018, 182, 544-548.	5.5	37
42	Off-line form of the Michaelis-Menten equation for studying the reaction kinetics in a polymer microchip integrated with enzyme microreactor. <i>Lab on A Chip</i> , 2006, 6, 811-818.	6.0	36
43	Electrokinetic control of fluid in plastified laser-printed poly(ethylene terephthalate)-toner microchips. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 382, 192-197.	3.7	33
44	Ultrasensitive Electrochemical Biosensor Developed by Probe Lengthening for Detection of Genomic DNA in Human Serum. <i>Analytical Chemistry</i> , 2019, 91, 4552-4558.	6.5	33
45	Colorimetric glutathione assay based on the peroxidase-like activity of a nanocomposite consisting of platinum nanoparticles and graphene oxide. <i>Mikrochimica Acta</i> , 2017, 184, 3945-3951.	5.0	32
46	Thermally treated bare gold nanoparticles for colorimetric sensing of copper ions. <i>Mikrochimica Acta</i> , 2014, 181, 911-916.	5.0	30
47	Dual-probe electrochemical DNA biosensor based on the λ -junction structure and restriction endonuclease assisted cyclic enzymatic amplification for detection of double-strand DNA of PML/RAR α related fusion gene. <i>Biosensors and Bioelectronics</i> , 2015, 71, 463-469.	10.1	29
48	Gold Nanoparticle-Based Photoluminescent Nanoswitch Controlled by Host-Guest Recognition and Enzymatic Hydrolysis for Arginase Activity Assay. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 5358-5364.	8.0	29
49	Improved enzymatic assay for hydrogen peroxide and glucose by exploiting the enzyme-mimicking properties of BSA-coated platinum nanoparticles. <i>Mikrochimica Acta</i> , 2019, 186, 778.	5.0	29
50	Partially reduced graphene oxide as highly efficient DNA nanoprobe. <i>Biosensors and Bioelectronics</i> , 2016, 80, 140-145.	10.1	28
51	Bimetallic Bi/Pt peroxidase mimic and its bioanalytical applications. <i>Analytica Chimica Acta</i> , 2017, 971, 88-96.	5.4	28
52	Simultaneous and sensitive voltammetric determination of acetaminophen and its degradation product for pharmaceutical quality control and pharmacokinetic research by using ultrathin poly (calconcarboxylic acid) film modified glassy carbon electrode. <i>Electrochimica Acta</i> , 2012, 63, 161-168.	5.2	26
53	Magnetic electrochemiluminescent immunoassay with quantum dots label for highly efficient detection of the tumor marker α -fetoprotein. <i>Journal of Electroanalytical Chemistry</i> , 2017, 785, 8-13.	3.8	23
54	An IMPLICATION logic gate based on citrate-capped gold nanoparticles with thiocyanate and iodide as inputs. <i>Analyst, The</i> , 2013, 138, 6677.	3.5	22

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55	Sensitive electrochemical immunoassay of metallothionein-3 based on K ₃ [Fe(CN) ₆] as a redox-active signal and C-dots/Nafion film for antibody immobilization. <i>Analyst</i> , 2013, 138, 7341.	3.5	22
56	Study of the electrochemical behavior of isorhamnetin on a glassy carbon electrode and its application. <i>Talanta</i> , 2008, 77, 314-318.	5.5	20
57	One-pot green synthesis of mussel-inspired myoglobin@“gold nanoparticles”polydopamine@“graphene polymeric bionanocomposite for biosensor application. <i>Journal of Electroanalytical Chemistry</i> , 2016, 764, 104-109.	3.8	18
58	Paper-based 3D culture device integrated with electrochemical sensor for the on-line cell viability evaluation of amyloid-beta peptide induced damage in PC12 cells. <i>Biosensors and Bioelectronics</i> , 2019, 144, 111686.	10.1	16
59	Genotyping of common EGFR mutations in lung cancer patients by electrochemical biosensor. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2018, 150, 176-182.	2.8	15
60	A novel ligase chain reaction-based electrochemical biosensing strategy for highly sensitive point mutation detection from human whole blood. <i>Talanta</i> , 2020, 216, 120966.	5.5	15
61	A colorimetric Boolean INHIBIT logic gate for the determination of sulfide based on citrate-capped gold nanoparticles. <i>RSC Advances</i> , 2015, 5, 58574-58579.	3.6	14
62	Label-free, resettable, and multi-readout logic gates based on chemically induced fluorescence switching of gold nanoclusters. <i>Journal of Materials Chemistry C</i> , 2016, 4, 7141-7147.	5.5	14
63	An electrochemical biosensor for sensitive detection of nicotine-induced dopamine secreted by PC12 cells. <i>Journal of Electroanalytical Chemistry</i> , 2019, 832, 217-224.	3.8	13
64	Electrochemical immunosensor for detection of topoisomerase based on graphene@“gold nanocomposites. <i>Talanta</i> , 2014, 125, 439-445.	5.5	12
65	2-Fluoro ribonucleic acid modified DNA dual-probe sensing strategy for enzyme-amplified electrochemical detection of double-strand DNA of PML/RAR α related fusion gene. <i>Biosensors and Bioelectronics</i> , 2018, 112, 170-176.	10.1	12
66	Novel Coupling Mechanism-Based Imaging Approach to Scanning Electrochemical Microscopy for Probing the Electric Field Distribution at the Microchannel End. <i>Langmuir</i> , 2006, 22, 7052-7058.	3.5	11
67	Simultaneous Voltammetric Determination of Ascorbic Acid, Dopamine and Uric Acid Using Polybromothymol Blue Film-Modified Glassy Carbon Electrode. <i>Chemical and Pharmaceutical Bulletin</i> , 2010, 58, 788-793.	1.3	11
68	Simultaneous and sensitive determination of procaine and its metabolite for pharmaceutical quality control and pharmacokinetic research by using a graphite paste electrode. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 1343-1351.	2.5	11
69	A high-performance amperometric sensor based on a monodisperse Pt@Au bimetallic nanoporous electrode for determination of hydrogen peroxide released from living cells. <i>Mikrochimica Acta</i> , 2020, 187, 499.	5.0	11
70	Ultrasensitive and facile electrochemical deoxyribonucleic acid biosensor based on the conformational change of the recognition interface. <i>Analytica Chimica Acta</i> , 2012, 748, 89-94.	5.4	10
71	Electrochemical genosensor for detection of human mammaglobin in polymerase chain reaction amplification products of breast cancer patients. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 3097-3103.	3.7	9
72	Sepsis progression monitoring via human serum fibronectin detection based on sandwich-type electrochemical immunosensor. <i>Analytica Chimica Acta</i> , 2020, 1100, 225-231.	5.4	9

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73	Efficient Determination of PML/RAR \pm Fusion Gene by the Electrochemical DNA Biosensor Based on Carbon Dots/Graphene Oxide Nanocomposites. <i>International Journal of Nanomedicine</i> , 2021, Volume 16, 3497-3508.	6.7	9
74	Electrochemical biosensor for detection of BCR/ABL fusion gene based on isorhamnetin as hybridization indicator. <i>Sensors and Actuators B: Chemical</i> , 2014, 204, 326-332.	7.8	8
75	A DNA electrochemical biosensor based on homogeneous hybridization for the determination of <i>Cryptococcus neoformans</i> . <i>Journal of Electroanalytical Chemistry</i> , 2018, 827, 27-33.	3.8	8
76	Enzyme-based E-RNA sensor array with a hairpin probe: Specific detection of gene mutation. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 227-233.	7.8	7
77	Integrated paper-based 3D platform for long-term cell culture and in situ cell viability monitoring of Alzheimer's disease cell model. <i>Talanta</i> , 2021, 223, 121738.	5.5	7
78	A Polymer Film Modified Sensor for Voltammetric Determination of Uric Acid in the Presence of Ascorbic Acid and Its Application in Urine. <i>Chemical and Pharmaceutical Bulletin</i> , 2008, 56, 1665-1669.	1.3	6
79	Electrochemical method for monitoring the progress of polymerase chain reactions using Methylene blue as an indicator. <i>Mikrochimica Acta</i> , 2013, 180, 871-878.	5.0	6
80	A multiple signal amplification electrochemical biosensors based on target DNA recycling for detection of the EGFR mutation status in lung cancer patients. <i>Journal of Electroanalytical Chemistry</i> , 2019, 853, 113555.	3.8	6
81	Sensitive electrochemical cytosensor for highly specific detection of osteosarcoma 143B cells based on graphene-3D gold nanocomposites. <i>Journal of Electroanalytical Chemistry</i> , 2018, 824, 108-113.	3.8	5
82	An electrochemical DNA sensor for detection of cytokeratin 19. <i>Analytical Methods</i> , 2013, 5, 2329.	2.7	4
83	Electrochemical monitoring the effect of drug intervention on PC12 cell damage model cultured on paper-PLA 3D printed device. <i>Analytica Chimica Acta</i> , 2022, 1194, 339409.	5.4	4
84	A sandwich-type DNA electrochemical biosensor for hairpin-stem-loop structure based on multistep temperature-controlling method. <i>International Journal of Nanomedicine</i> , 2012, 7, 4953.	6.7	3
85	Improving quantitative control and homogeneous distribution of samples on paper-based analytical devices via drop-on-demand inkjet printing. <i>Analyst</i> , 2019, 144, 4013-4023.	3.5	3