

Wen-Bin Liang

List of Publications by Year in descending order

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86
papers

3,141
citations

101543

36
h-index

175258

52
g-index

87
all docs

87
docs citations

87
times ranked

2734
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Stable Mesoporous Luminescence-Functionalized MOF with Excellent Electrochemiluminescence Property for Ultrasensitive Immunosensor Construction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 15913-15919.	8.0	125
2	Matrix Coordination-Induced Electrochemiluminescence Enhancement of Tetraphenylethylene-Based Hafnium Metal-Organic Framework: An Electrochemiluminescence Chromophore for Ultrasensitive Electrochemiluminescence Sensor Construction. <i>Analytical Chemistry</i> , 2020, 92, 3380-3387.	6.5	112
3	Ultrasensitive Photoelectrochemical Biosensor Based on DNA Tetrahedron as Nanocarrier for Efficient Immobilization of CdTe QDs-Methylene Blue as Signal Probe with Near-Zero Background Noise. <i>Analytical Chemistry</i> , 2018, 90, 8211-8216.	6.5	104
4	Ultrasensitive Assay for Telomerase Activity via Self-Enhanced Electrochemiluminescent Ruthenium Complex Doped Metal-Organic Frameworks with High Emission Efficiency. <i>Analytical Chemistry</i> , 2017, 89, 3222-3227.	6.5	95
5	Anodic Electrochemiluminescence of Carbon Dots Promoted by Nitrogen Doping and Application to Rapid Cancer Cell Detection. <i>Analytical Chemistry</i> , 2020, 92, 1379-1385.	6.5	88
6	Universal Ratiometric Photoelectrochemical Bioassay with Target-Nucleotide Transduction-Amplification and Electron-Transfer Tunneling Distance Regulation Strategies for Ultrasensitive Determination of microRNA in Cells. <i>Analytical Chemistry</i> , 2017, 89, 9445-9451.	6.5	79
7	In situ electro-polymerization of nitrogen doped carbon dots and their application in an electrochemiluminescence biosensor for the detection of intracellular lead ions. <i>Chemical Communications</i> , 2016, 52, 5589-5592.	4.1	76
8	Using p-type PbS Quantum Dots to Quench Photocurrent of Fullerene-Au NP@MoS ₂ Composite Structure for Ultrasensitive Photoelectrochemical Detection of ATP. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42111-42120.	8.0	75
9	Electrochemiluminescence Enhanced by Restriction of Intramolecular Motions (RIM): Tetraphenylethylene Microcrystals as a Novel Emitter for Mucin 1 Detection. <i>Analytical Chemistry</i> , 2019, 91, 3710-3716.	6.5	75
10	Highly Stable Covalent Organic Framework Nanosheets as a New Generation of Electrochemiluminescence Emitters for Ultrasensitive MicroRNA Detection. <i>Analytical Chemistry</i> , 2021, 93, 3258-3265.	6.5	75
11	Amperometric immunosensor for the detection of Escherichia coli O157:H7 in food specimens. <i>Analytical Biochemistry</i> , 2012, 421, 227-233.	2.4	74
12	An AIEgen-based 2D ultrathin metal-organic layer as an electrochemiluminescence platform for ultrasensitive biosensing of carcinoembryonic antigen. <i>Nanoscale</i> , 2020, 12, 5932-5941.	5.6	71
13	Luminescence-Functionalized Metal-Organic Frameworks Based on a Ruthenium(II) Complex: A Signal Amplification Strategy for Electrogenerated Chemiluminescence Immunosensors. <i>Chemistry - A European Journal</i> , 2015, 21, 9825-9832.	3.3	69
14	A Janus 3D DNA nanomachine for simultaneous and sensitive fluorescence detection and imaging of dual microRNAs in cancer cells. <i>Chemical Science</i> , 2020, 11, 8482-8488.	7.4	68
15	A novel electrochemical DNA biosensor based on HRP-mimicking hemin/G-quadruplex wrapped COx nanocomposites as tag for detection of Escherichia coli O157:H7. <i>Biosensors and Bioelectronics</i> , 2015, 63, 1-6.	10.1	64
16	MicroRNA-triggered, cascaded and catalytic self-assembly of functional α -DNAzyme ferris wheel nanostructures for highly sensitive colorimetric detection of cancer cells. <i>Nanoscale</i> , 2015, 7, 9055-9061.	5.6	63
17	Ultrasensitive Cytosensor Based on Self-Enhanced Electrochemiluminescent Ruthenium-Silica Composite Nanoparticles for Efficient Drug Screening with Cell Apoptosis Monitoring. <i>Analytical Chemistry</i> , 2015, 87, 12363-12371.	6.5	62
18	Self-Enhanced Ultrasensitive Photoelectrochemical Biosensor Based on Nanocapsule Packaging Both Donor-Acceptor-Type Photoactive Material and Its Sensitizer. <i>Analytical Chemistry</i> , 2016, 88, 8698-8705.	6.5	61

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19	An ultrasensitive "off-on" photoelectrochemical aptasensor based on signal amplification of a fullerene/CdTe quantum dots sensitized structure and efficient quenching by manganese porphyrin. <i>Chemical Communications</i> , 2016, 52, 8138-8141.	4.1	61
20	Highly stable Ru-complex-grafted 2D metal-organic layer with superior electrochemiluminescent efficiency as a sensing platform for simple and ultrasensitive detection of mucin 1. <i>Biosensors and Bioelectronics</i> , 2019, 135, 95-101.	10.1	55
21	Covalent organic frameworks as micro-reactors: confinement-enhanced electrochemiluminescence. <i>Chemical Science</i> , 2020, 11, 5410-5414.	7.4	55
22	A novel microfluidic immunoassay system based on electrochemical immunosensors: An application for the detection of NT-proBNP in whole blood. <i>Biosensors and Bioelectronics</i> , 2012, 31, 480-485.	10.1	54
23	A Highly Sensitive Photoelectrochemical Assay with Donor-Acceptor-Type Material as Photoactive Material and Polyaniline as Signal Enhancer. <i>Analytical Chemistry</i> , 2018, 90, 6096-6101.	6.5	53
24	Ruthenium(II) Complex-Grafted Hollow Hierarchical Metal-Organic Frameworks with Superior Electrochemiluminescence Performance for Sensitive Assay of Thrombin. <i>Analytical Chemistry</i> , 2021, 93, 6239-6245.	6.5	53
25	Overcoming Aggregation-Induced Quenching by Metal-Organic Framework for Electrochemiluminescence (ECL) Enhancement: Zn-PTC as a New ECL Emitter for Ultrasensitive MicroRNAs Detection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44079-44085.	8.0	53
26	A sensitive electrochemical strategy via multiple amplification reactions for the detection of <i>E. coli</i> O157: H7. <i>Biosensors and Bioelectronics</i> , 2020, 147, 111752.	10.1	51
27	Wavelength-resolved simultaneous photoelectrochemical bifunctional sensor on single interface: A newly in vitro approach for multiplexed DNA monitoring in cancer cells. <i>Biosensors and Bioelectronics</i> , 2016, 81, 423-430.	10.1	50
28	Restriction of intramolecular motions (RIM) by metal-organic frameworks for electrochemiluminescence enhancement: 2D Zr ₁₂ -adp nanoplate as a novel ECL tag for the construction of biosensing platform. <i>Biosensors and Bioelectronics</i> , 2020, 155, 112099.	10.1	48
29	A novel, label-free immunosensor for the detection of β -fetoprotein using functionalised gold nanoparticles. <i>Clinical Biochemistry</i> , 2009, 42, 1524-1530.	1.9	47
30	CdTe QD@CeO ₂ Complex as a Strong Photoelectrochemical Signal Indicator for the Ultrasensitive microRNA Assay. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11834-11840.	8.0	44
31	Measurement of Small Molecule Binding Kinetics on a Protein Microarray by Plasmonic-Based Electrochemical Impedance Imaging. <i>Analytical Chemistry</i> , 2014, 86, 9860-9865.	6.5	43
32	Biomimetic 3D DNA Nanomachine via Free DNA Walker Movement on Lipid Bilayers Supported by Hard SiO ₂ @CdTe Nanoparticles for Ultrasensitive MicroRNA Detection. <i>Analytical Chemistry</i> , 2019, 91, 14920-14926.	6.5	43
33	A robust, magnetic, and self-accelerated electrochemiluminescent nanosensor for ultrasensitive detection of copper ion. <i>Biosensors and Bioelectronics</i> , 2018, 109, 109-115.	10.1	40
34	An efficient target-intermediate recycling amplification strategy for ultrasensitive fluorescence assay of intracellular lead ions. <i>Chemical Communications</i> , 2017, 53, 7525-7528.	4.1	39
35	Two Birds with One Stone: Surface Functionalization and Delamination of Multilayered Ti ₃ C ₂ T _x MXene by Grafting a Ruthenium(II) Complex to Achieve Conductivity-Enhanced Electrochemiluminescence. <i>Analytical Chemistry</i> , 2021, 93, 1834-1841.	6.5	39
36	Multiparameter Analysis-Based Electrochemiluminescent Assay for Simultaneous Detection of Multiple Biomarker Proteins on a Single Interface. <i>Analytical Chemistry</i> , 2016, 88, 4940-4948.	6.5	38

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37	Ultrasensitive Fluorescent Assay Based on a Rolling-Circle-Amplification-Assisted Multisite-Strand-Displacement-Reaction Signal-Amplification Strategy. <i>Analytical Chemistry</i> , 2018, 90, 7474-7479.	6.5	37
38	A highly sensitive self-enhanced aptasensor based on a stable ultrathin 2D metal-organic layer with outstanding electrochemiluminescence property. <i>Nanoscale</i> , 2019, 11, 10056-10063.	5.6	36
39	Conductive Covalent Organic Frameworks with Conductivity- and Pre-Reduction-Enhanced Electrochemiluminescence for Ultrasensitive Biosensor Construction. <i>Analytical Chemistry</i> , 2022, 94, 3685-3692.	6.5	36
40	An Electrochemical Strategy using Multifunctional Nanoconjugates for Efficient Simultaneous Detection of <i>Escherichia coli</i> O157: H7 and <i>Vibrio cholerae</i> O1. <i>Theranostics</i> , 2017, 7, 935-944.	10.0	34
41	A Dynamic DNA Machine via Free Walker Movement on Lipid Bilayer for Ultrasensitive Electrochemiluminescent Bioassay. <i>Analytical Chemistry</i> , 2019, 91, 14125-14132.	6.5	34
42	A sensitive immunosensor via in situ enzymatically generating efficient quencher for electrochemiluminescence of iridium complexes doped SiO ₂ nanoparticles. <i>Biosensors and Bioelectronics</i> , 2017, 94, 568-574.	10.1	33
43	Ultrasensitive Photoelectrochemical Assay with PTB7-Th/CdTe Quantum Dots Sensitized Structure as Signal Tag and Benzo-4-chlorohexadienone Precipitate as Efficient Quencher. <i>Analytical Chemistry</i> , 2018, 90, 14521-14526.	6.5	31
44	An Efficient Feature Selection Strategy Based on Multiple Support Vector Machine Technology with Gene Expression Data. <i>BioMed Research International</i> , 2018, 2018, 1-11.	1.9	30
45	A novel fluorescent assay for the ultrasensitive detection of miRNA-21 with the use of G-quadruplex structures as an immobilization material for a signal indicator. <i>Chemical Communications</i> , 2019, 55, 6453-6456.	4.1	29
46	A novel label-free voltammetric immunosensor for the detection of α -fetoprotein using functional titanium dioxide nanoparticles. <i>Electrochimica Acta</i> , 2008, 53, 2302-2308.	5.2	28
47	Ruthenium complex doped metal-organic nanoplate with high electrochemiluminescent intensity and stability for ultrasensitive assay of mucin 1. <i>Sensors and Actuators B: Chemical</i> , 2019, 292, 105-110.	7.8	28
48	Competitive method-based electrochemiluminescent assay with protein-nucleotide conversion for ratio detection to efficiently monitor the drug resistance of cancer cells. <i>Chemical Science</i> , 2016, 7, 7094-7100.	7.4	27
49	3D Matrix-Arranged AuAg Nanoclusters As Electrochemiluminescence Emitters for Click Chemistry-Driven Signal Switch Bioanalysis. <i>Analytical Chemistry</i> , 2020, 92, 2566-2572.	6.5	27
50	Synthesis and application of a new copper(II) complex containing oflx and loef. <i>Russian Journal of Inorganic Chemistry</i> , 2008, 53, 704-706.	1.3	23
51	The Effect of Temperature on the Properties of Hydrochars Obtained by Hydrothermal Carbonization of Waste <i>Camellia oleifera</i> Shells. <i>ACS Omega</i> , 2021, 6, 16546-16552.	3.5	23
52	Nanogold-penetrated poly(amidoamine) dendrimer for enzyme-free electrochemical immunoassay of cardiac biomarker using cathodic stripping voltammetric method. <i>Analytica Chimica Acta</i> , 2016, 904, 51-57.	5.4	22
53	Copper sulfide-functionalized molybdenum disulfide nano hybrids as nanoenzyme mimics for electrochemical immunoassay of myoglobin in cardiovascular disease. <i>RSC Advances</i> , 2017, 7, 2486-2493.	3.6	22
54	Electrochemiluminescent Pb ²⁺ -Driven Circular Etching Sensor Coupled to a DNA Micronet-Carrier. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 39812-39820.	8.0	22

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55	A novel magnetic Fe ₃ O ₄ @gold composite nanomaterial: Synthesis and application in regeneration-free immunosensor. <i>Materials Letters</i> , 2010, 64, 2616-2619.	2.6	18
56	An efficient electrochemiluminescence amplification strategy via bis-co-reaction accelerator for sensitive detection of laminin to monitor overnutrition associated liver damage. <i>Biosensors and Bioelectronics</i> , 2017, 98, 317-324.	10.1	18
57	Application of a Fab fragment of monoclonal antibody specific to N-terminal pro-brain natriuretic peptide for the detection based on regeneration-free electrochemical immunosensor. <i>Biotechnology Letters</i> , 2011, 33, 1539-1543.	2.2	17
58	Attention-Based Multi-NMF Deep Neural Network with Multimodality Data for Breast Cancer Prognosis Model. <i>BioMed Research International</i> , 2019, 2019, 1-11.	1.9	17
59	A dynamic 3D DNA nanostructure based on silicon-supported lipid bilayers: a highly efficient DNA nanomachine for rapid and sensitive sensing. <i>Chemical Communications</i> , 2019, 55, 13414-13417.	4.1	17
60	Highly efficient electrochemiluminescence resonance energy transfer material constructed from an AlEgen-based 2D ultrathin metal-organic layer for thrombin detection. <i>Chemical Communications</i> , 2021, 57, 4323-4326.	4.1	17
61	Conductive NiCo bimetal-organic framework nanorods with conductivity-enhanced electrochemiluminescence for constructing biosensing platform. <i>Sensors and Actuators B: Chemical</i> , 2022, 362, 131802.	7.8	17
62	A Novel Electrochemiluminescent Immunoassay Based on Target Transformation Assisted with Catalyzed Hairpin Assembly Amplification for the Ultrasensitive Bioassay. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 31427-31433.	8.0	16
63	Electrochemiluminescence enhanced by isolating ACQphores in pyrene-based porous organic polymer: A novel ECL emitter for the construction of biosensing platform. <i>Analytica Chimica Acta</i> , 2022, 1206, 339648.	5.4	16
64	Hydrophobic-Driven Electrochemiluminescence Enhancement via Target-Induced Self-Enrichment for Ultrasensitive Bioassay. <i>Analytical Chemistry</i> , 2020, 92, 15120-15128.	6.5	15
65	Discrimination between Cancer Cells and DNA-Damaged Cells: Pre-miRNA Region Recognition Based on Hyperbranched Hybrid Chain Reaction Amplification for Simultaneous Sensitive Detection and Imaging of miRNA and Pre-miRNA. <i>Analytical Chemistry</i> , 2022, 94, 9911-9918.	6.5	15
66	Epigenetic Quantification of 5-Hydroxymethylcytosine Signatures via Regulatable DNAzyme Motor Triggered by Strand Displacement Amplification. <i>Analytical Chemistry</i> , 2022, 94, 3313-3319.	6.5	14
67	A Simple and Highly Sensitive Naked-Eye Analysis of EGFR 19del via CRISPR/Cas12a Triggered No-Nonspecific Nucleic Acid Amplification. <i>ACS Synthetic Biology</i> , 2022, 11, 867-876.	3.8	12
68	Double loop-stem hairpins mediated hybridization chain reaction: A multifunctional DNA molecular tool to produce the intact aptamer for label-free biosensing. <i>Sensors and Actuators B: Chemical</i> , 2022, 369, 132327.	7.8	12
69	A fluorometric lead(II) assay by using a DNA dendrimer as a carrier for the immobilization of the signal probe. <i>Mikrochimica Acta</i> , 2019, 186, 582.	5.0	10
70	Disposable amperometric immunosensor based on layer-by-layer electro-depositing of the nanogold particles, prussian blue-modified indium tin oxide for determination of β -fetoprotein. <i>Journal of Chemical Sciences</i> , 2009, 121, 1069-1076.	1.5	9
71	[Ru(dcbpy) ₂ dppz] ²⁺ /Fullerene Cosensitized PTB7 for Ultrasensitive Photoelectrochemical MicroRNA Assay. <i>Chemistry - A European Journal</i> , 2019, 25, 4087-4092.	3.3	9
72	A Highly Sensitive Detection System based on Proximity-dependent Hybridization with Computer-aided Affinity Maturation of a scFv Antibody. <i>Scientific Reports</i> , 2018, 8, 3837.	3.3	8

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73	Rapid self-disassembly of DNA diblock copolymer micelles <i>via</i> target induced hydrophilic-hydrophobic regulation for sensitive MiRNA detection. <i>Chemical Communications</i> , 2020, 56, 10215-10218.	4.1	8
74	An ATP-fueled nucleic acid signal amplification strategy for highly sensitive microRNA detection. <i>Chemical Communications</i> , 2018, 54, 10897-10900.	4.1	7
75	A near-infrared light-controlled, ultrasensitive one-step photoelectrochemical detection of dual cell apoptosis indicators in living cancer cells. <i>Chemical Communications</i> , 2020, 56, 8488-8491.	4.1	6
76	Metal-organic Frameworks (MOF)-based Novel Electrochemiluminescence Biosensing Platform for Quantification of H ₂ O ₂ Releasing from Tumor Cells. <i>Acta Chimica Sinica</i> , 2021, 79, 1257.	1.4	6
77	A target-initiated autocatalytic 3D DNA nanomachine for high-efficiency amplified detection of MicroRNA. <i>Talanta</i> , 2022, 240, 123219.	5.5	5
78	Three-in-One System Based on Multi-Path Nucleic Acid Amplification for Bioanalysis of Pre-miRNA/miRNA and Dicer Activity. <i>Analytical Chemistry</i> , 2022, 94, 8258-8266.	6.5	5
79	A Multimodal Affinity Fusion Network for Predicting the Survival of Breast Cancer Patients. <i>Frontiers in Genetics</i> , 2021, 12, 709027.	2.3	4
80	A novel photoelectrochemical strategy based on quenching effect of CdS quantum dots on PTB7 as photoelectroactive material for methylated DNA detection. <i>Journal of Electroanalytical Chemistry</i> , 2019, 847, 113220.	3.8	3
81	Aggregation-Induced Synergism by Hydrophobic-Driven Self-Assembly of Amphiphilic Oligonucleotides. <i>Chemistry - A European Journal</i> , 2020, 26, 8767-8773.	3.3	3
82	No-nonspecific recognition-based amplification strategy for endonuclease activity screening with dual-color DNA nano-clew. <i>Biosensors and Bioelectronics</i> , 2021, 190, 113446.	10.1	3
83	Electrocatalytic Oxidation and Determination of Dopamine Concentrations Based on Fe ₃ O ₄ -Polyaniline Nanoparticles/Glutamic Acid Chemically Modified Electrodes. <i>Sensor Letters</i> , 2010, 8, 760-766.	0.4	3
84	Proximity hybridization-induced competitive rolling circle amplification to construct fluorescent dual-sensor for simultaneous evaluation of glycated and total hemoglobin. <i>Biosensors and Bioelectronics</i> , 2022, 202, 113998.	10.1	3
85	One-Step Digital Droplet Auto-Catalytic Nucleic Acid Amplification with High-Throughput Fluorescence Imaging and Droplet Tracking Computation. <i>Analytical Chemistry</i> , 2022, 94, 9166-9175.	6.5	3
86	An orbitron-like 3D DNA clip-based nanomachine and its application for sensitive fluorescent bioassay of MicroRNA. <i>Analytica Chimica Acta</i> , 2020, 1126, 24-30.	5.4	1