

# Wen-Bin Liang

## List of Publications by Year in descending order

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Version: 2024-02-01

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  | A target-initiated autocatalytic 3D DNA nanomachine for high-efficiency amplified detection of MicroRNA. <i>Talanta</i> , 2022, 240, 123219.   | 5.5  | 5         |
| 2  | Proximity hybridization-induced competitive rolling circle amplification to construct fluorescent dual-sensor for simultaneous evaluation of glycosylated and total hemoglobin. <i>Biosensors and Bioelectronics</i> , 2022, 202, 113998.                                      | 10.1 | 3         |
| 3  | 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        |
| 4  | Epigenetic Quantification of 5-Hydroxymethylcytosine Signatures via Regulated DNAzyme Motor Triggered by Strand Displacement Amplification. <i>Analytical Chemistry</i> , 2022, 94, 3313-3319.   | 6.5  | 14        |
| 5  | 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        |
| 6  | 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        |
| 7  | 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        |
| 8  | 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         |
| 9  | 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        |
| 10 | 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         |
| 11 | 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        |
| 12 | 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        |
| 13 | 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        |
| 14 | 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        |
| 15 | 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        |
| 16 | A Multimodal Affinity Fusion Network for Predicting the Survival of Breast Cancer Patients. <i>Frontiers in Genetics</i> , 2021, 12, 709027.   | 2.3  | 4         |
| 17 | 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 &amp; Interfaces</i> , 2021, 13, 44079-44085.                 | 8.0  | 53        |
| 18 | No-nonspecific recognition-based amplification strategy for endonuclease activity screening with dual-color DNA nano-clews. <i>Biosensors and Bioelectronics</i> , 2021, 190, 113446.  | 10.1 | 3         |

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|----|--|------|-----------|
| 19 | Two Birds with One Stone: Surface Functionalization and Delamination of Multilayered Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene by Grafting a Ruthenium(II) Complex to Achieve Conductivity-Enhanced Electrochemiluminescence. <i>Analytical Chemistry</i> , 2021, 93, 1834-1841. | 6.5  | 39        |
| 20 | Metal-organic Frameworks (MOF)-based Novel Electrochemiluminescence Biosensing Platform for Quantification of H <sub>2</sub> O <sub>2</sub> Releasing from Tumor Cells. <i>Acta Chimica Sinica</i> , 2021, 79, 1257.   | 1.4  | 6         |
| 21 | A sensitive electrochemical strategy via multiple amplification reactions for the detection of E. coli O157: H7. <i>Biosensors and Bioelectronics</i> , 2020, 147, 111752.   | 10.1 | 51        |
| 22 | 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        |
| 23 | 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        |
| 24 | 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         |
| 25 | 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        |
| 26 | Hydrophobic-Driven Electrochemiluminescence Enhancement via Target-Induced Self-Enrichment for Ultrasensitive Bioassay. <i>Analytical Chemistry</i> , 2020, 92, 15120-15128.   | 6.5  | 15        |
| 27 | 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         |
| 28 | 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         |
| 29 | Aggregation-Induced Synergism by Hydrophobic-Driven Self-Assembly of Amphiphilic Oligonucleotides. <i>Chemistry - A European Journal</i> , 2020, 26, 8767-8773.  | 3.3  | 3         |
| 30 | 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        |
| 31 | Restriction of intramolecular motions (RIM) by metal-organic frameworks for electrochemiluminescence enhancement: 2D Zr <sub>12</sub> -adb nanoplate as a novel ECL tag for the construction of biosensing platform. <i>Biosensors and Bioelectronics</i> , 2020, 155, 112099.             | 10.1 | 48        |
| 32 | 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       |
| 33 | Covalent organic frameworks as micro-reactors: confinement-enhanced electrochemiluminescence. <i>Chemical Science</i> , 2020, 11, 5410-5414.   | 7.4  | 55        |
| 34 | 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        |
| 35 | A Novel Electrochemiluminescent Immunoassay Based on Target Transformation Assisted with Catalyzed Hairpin Assembly Amplification for the Ultrasensitive Bioassay. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 31427-31433.  | 8.0  | 16        |
| 36 | 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        |

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|----|--|------|-----------|
| 37 | Biomimetic 3D DNA Nanomachine via Free DNA Walker Movement on Lipid Bilayers Supported by Hard SiO <sub>2</sub> @CdTe Nanoparticles for Ultrasensitive MicroRNA Detection. <i>Analytical Chemistry</i> , 2019, 91, 14920-14926.              | 6.5  | 43        |
| 38 | 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        |
| 39 | [Ru(dcbpy) <sub>2</sub> dppz] <sup>2+</sup> /Fullerene Cosensitized PTB7-Th for Ultrasensitive Photoelectrochemical MicroRNA Assay. <i>Chemistry - A European Journal</i> , 2019, 25, 4087-4092.   | 3.3  | 9         |
| 40 | 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         |
| 41 | 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        |
| 42 | 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        |
| 43 | 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        |
| 44 | CdTe QD@CeO <sub>2</sub> Complex as a Strong Photoelectrochemical Signal Indicator for the Ultrasensitive microRNA Assay. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 11834-11840.   | 8.0  | 44        |
| 45 | 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        |
| 46 | 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        |
| 47 | 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        |
| 48 | 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        |
| 49 | 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         |
| 50 | 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        |
| 51 | Highly Stable Mesoporous Luminescence-Functionalized MOF with Excellent Electrochemiluminescence Property for Ultrasensitive Immunosensor Construction. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 15913-15919.               | 8.0  | 125       |
| 52 | 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        |
| 53 | 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        |
| 54 | An ATP-fueled nucleic acid signal amplification strategy for highly sensitive microRNA detection. <i>Chemical Communications</i> , 2018, 54, 10897-10900.  | 4.1  | 7         |

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|----|--|------|-----------|
| 55 | 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        |
| 56 | 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       |
| 57 | 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        |
| 58 | 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        |
| 59 | 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        |
| 60 | A sensitive immunosensor via in situ enzymatically generating efficient quencher for electrochemiluminescence of iridium complexes doped SiO <sub>2</sub> nanoparticles. <i>Biosensors and Bioelectronics</i> , 2017, 94, 568-574.   | 10.1 | 33        |
| 61 | Electrochemiluminescent Pb <sup>2+</sup> -Driven Circular Etching Sensor Coupled to a DNA Micronet-Carrier. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 39812-39820.  | 8.0  | 22        |
| 62 | 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        |
| 63 | Using p-type PbS Quantum Dots to Quench Photocurrent of Fullerene-Au NP@MoS <sub>2</sub> Composite Structure for Ultrasensitive Photoelectrochemical Detection of ATP. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42111-42120.                                   | 8.0  | 75        |
| 64 | 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        |
| 65 | 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        |
| 66 | 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        |
| 67 | 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        |
| 68 | 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        |
| 69 | 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        |
| 70 | An ultrasensitive 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        |
| 71 | 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        |
| 72 | 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        |

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|----|---|------|-----------|
| 73 | 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        |
| 74 | MicroRNA-triggered, cascaded and catalytic self-assembly of functional DNAzyme ferris wheel nanostructures for highly sensitive colorimetric detection of cancer cells. <i>Nanoscale</i> , 2015, 7, 9055-9061.                                      | 5.6  | 63        |
| 75 | 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        |
| 76 | A novel electrochemical DNA biosensor based on HRP-mimicking hemin/G-quadruplex wrapped GOx nanocomposites as tag for detection of Escherichia coli O157:H7. <i>Biosensors and Bioelectronics</i> , 2015, 63, 1-6.                                  | 10.1 | 64        |
| 77 | 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        |
| 78 | Amperometric immunosensor for the detection of Escherichia coli O157:H7 in food specimens. <i>Analytical Biochemistry</i> , 2012, 421, 227-233.   | 2.4  | 74        |
| 79 | 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        |
| 80 | 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        |
| 81 | A novel magnetic Fe <sub>3</sub> O <sub>4</sub> @gold composite nanomaterial: Synthesis and application in regeneration-free immunosensor. <i>Materials Letters</i> , 2010, 64, 2616-2619.  | 2.6  | 18        |
| 82 | Electrocatalytic Oxidation and Determination of Dopamine Concentrations Based on Fe <sub>3</sub> O <sub>4</sub> -Polyaniline Nanoparticles/Glutamic Acid Chemically Modified Electrodes. <i>Sensor Letters</i> , 2010, 8, 760-766.                  | 0.4  | 3         |
| 83 | Disposable amperometric immunosensor based on layer-by-layer electro-depositing of the nanogold particles, prussian blue-modified indium tin oxide for determination of Î±-fetoprotein. <i>Journal of Chemical Sciences</i> , 2009, 121, 1069-1076. | 1.5  | 9         |
| 84 | A novel, label-free immunosensor for the detection of Î±-fetoprotein using functionalised gold nanoparticles. <i>Clinical Biochemistry</i> , 2009, 42, 1524-1530.   | 1.9  | 47        |
| 85 | A novel label-free voltammetric immunosensor for the detection of Î±-fetoprotein using functional titanium dioxide nanoparticles. <i>Electrochimica Acta</i> , 2008, 53, 2302-2308.   | 5.2  | 28        |
| 86 | 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        |