

Lei Han

List of Publications by Year in descending order

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69
papers

3,470
citations

136740

32
h-index

143772

57
g-index

71
all docs

71
docs citations

71
times ranked

4088
citing authors

#	ARTICLE	IF	CITATIONS
1	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 & Interfaces</i> , 2015, 7, 14463-14470.	4.0	237
2	Protein-Directed Metal Oxide Nanoflakes with Tandem Enzyme-Like Characteristics: Colorimetric Glucose Sensing Based on One-Pot Enzyme-Free Cascade Catalysis. <i>Advanced Functional Materials</i> , 2018, 28, 1800018.	7.8	227
3	Non-Naked Gold with Glucose Oxidase-Like Activity: A Nanozyme for Tandem Catalysis. <i>Small</i> , 2018, 14, e1803256.	5.2	156
4	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.	5.3	154
5	pH-mediated reversible fluorescence nanoswitch based on inner filter effect induced fluorescence quenching for selective and visual detection of 4-nitrophenol. <i>Journal of Hazardous Materials</i> , 2019, 362, 45-52.	6.5	130
6	Facile synthesis of multicolor photoluminescent polymer carbon dots with surface-state energy gap-controlled emission. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10785-10793.	2.7	115
7	Novel biotemplated MnO ₂ 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.	4.0	107
8	Genetically Engineered Phage-Templated MnO ₂ Nanowires: Synthesis and Their Application in Electrochemical Glucose Biosensor Operated at Neutral pH Condition. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13768-13776.	4.0	106
9	Smartphones and Test Paper-Assisted Ratiometric Fluorescent Sensors for Semi-Quantitative and Visual Assay of Tetracycline Based on the Target-Induced Synergistic Effect of Antenna Effect and Inner Filter Effect. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47099-47107.	4.0	105
10	White Peroxidase-Mimicking Nanozymes: Colorimetric Pesticide Assay without Interferences of O ₂ and Color. <i>Advanced Functional Materials</i> , 2020, 30, 2001933.	7.8	105
11	A V ₂ O ₃ -ordered mesoporous carbon composite with novel peroxidase-like activity towards the glucose colorimetric assay. <i>Nanoscale</i> , 2015, 7, 11678-11685.	2.8	100
12	A sensitive acetylcholinesterase biosensor based on gold nanorods modified electrode for detection of organophosphate pesticide. <i>Talanta</i> , 2016, 156-157, 34-41.	2.9	100
13	Colorimetric Assay of Bacterial Pathogens Based on Co ₃ O ₄ Magnetic Nanozymes Conjugated with Specific Fusion Phage Proteins and Magnetophoretic Chromatography. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9090-9097.	4.0	95
14	Phage capsid protein-directed MnO ₂ nanosheets with peroxidase-like activity for spectrometric biosensing and evaluation of antioxidant behaviour. <i>Chemical Communications</i> , 2017, 53, 5216-5219.	2.2	94
15	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.	5.3	93
16	Porous gold cluster film prepared from Au@BSA microspheres for electrochemical nonenzymatic glucose sensor. <i>Electrochimica Acta</i> , 2014, 138, 109-114.	2.6	82
17	Mechanistic Insights into Interactions between Bacterial Class I P450 Enzymes and Redox Partners. <i>ACS Catalysis</i> , 2018, 8, 9992-10003.	5.5	78
18	Redesigning of Microbial Cell Surface and Its Application to Whole-Cell Biocatalysis and Biosensors. <i>Applied Biochemistry and Biotechnology</i> , 2018, 185, 396-418.	1.4	74

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19	A Label-Free Electrochemical Impedance Cytosensor Based on Specific Peptide-Fused Phage Selected from Landscape Phage Library. <i>Scientific Reports</i> , 2016, 6, 22199.	1.6	70
20	Preparation of a Si/SiO ₂ "Ordered" Mesoporous Carbon Nanocomposite as an Anode for High-Performance Lithium-Ion and Sodium-Ion Batteries. <i>Chemistry - A European Journal</i> , 2018, 24, 4841-4848.	1.7	70
21	Size-dependent modulation of fluorescence and light scattering: a new strategy for development of ratiometric sensing. <i>Materials Horizons</i> , 2018, 5, 454-460.	6.4	69
22	Sensitive colorimetric immunoassay of <i>Vibrio parahaemolyticus</i> based on specific nonapeptide probe screening from a phage display library conjugated with MnO ₂ nanosheets with peroxidase-like activity. <i>Nanoscale</i> , 2018, 10, 2825-2833.	2.8	60
23	Displaying of acetylcholinesterase mutants on surface of yeast for ultra-trace fluorescence detection of organophosphate pesticides with gold nanoclusters. <i>Biosensors and Bioelectronics</i> , 2020, 148, 111825.	5.3	60
24	Construction of an effective ratiometric fluorescent sensing platform for specific and visual detection of mercury ions based on target-triggered the inhibition on inner filter effect. <i>Journal of Hazardous Materials</i> , 2019, 376, 170-177.	6.5	47
25	Multifunctional Binding Strategy on Nonconjugated Polymer Nanoparticles for Ratiometric Detection and Effective Removal of Mercury Ions. <i>Environmental Science & Technology</i> , 2020, 54, 10270-10278.	4.6	45
26	A novel electrochemical sensor based on poly(p-aminobenzene sulfonic acid)-reduced graphene oxide composite film for the sensitive and selective detection of levofloxacin in human urine. <i>Journal of Electroanalytical Chemistry</i> , 2018, 817, 141-148.	1.9	44
27	Ultrasensitive electrochemical sensor for p-nitrophenyl organophosphates based on ordered mesoporous carbons at low potential without deoxygenization. <i>Analytica Chimica Acta</i> , 2014, 822, 23-29.	2.6	41
28	A lanthanide coordination polymer as a ratiometric fluorescent probe for rapid and visual sensing of phosphate based on the target-triggered competitive effect. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13063-13071.	2.7	39
29	Novel Cell-Inorganic Hybrid Catalytic Interfaces with Enhanced Enzymatic Activity and Stability for Sensitive Biosensing of Paraoxon. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6894-6901.	4.0	38
30	Copper nanoclusters with strong fluorescence emission as a sensing platform for sensitive and selective detection of picric acid. <i>Analytical Methods</i> , 2018, 10, 4251-4256.	1.3	36
31	Specific phages-based electrochemical impedimetric immunosensors for label-free and ultrasensitive detection of dual prostate-specific antigens. <i>Sensors and Actuators B: Chemical</i> , 2019, 297, 126727.	4.0	35
32	Selected landscape phage probe as selective recognition interface for sensitive total prostate-specific antigen immunosensor. <i>Biosensors and Bioelectronics</i> , 2018, 106, 1-6.	5.3	34
33	Carbon dots-based fluorescent turn off/on sensor for highly selective and sensitive detection of Hg ²⁺ and biothiols. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 222, 117260.	2.0	33
34	Protein-directed gold nanoparticles with excellent catalytic activity for 4-nitrophenol reduction. <i>Materials Science and Engineering C</i> , 2017, 78, 429-434.	3.8	30
35	Oxidation etching induced dual-signal response of carbon dots/silver nanoparticles system for ratiometric optical sensing of H ₂ O ₂ and H ₂ O ₂ -related bioanalysis. <i>Analytica Chimica Acta</i> , 2019, 1055, 81-89.	2.6	29
36	pH-induced aggregation of hydrophilic carbon dots for fluorescence detection of acidic amino acid and intracellular pH imaging. <i>Materials Science and Engineering C</i> , 2020, 108, 110401.	3.8	28

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37	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.	1.6	26
38	Selective Inhibition toward Dual Enzyme-like Activities of Iridium Nanozymes for a Specific Colorimetric Assay of Malathion without Enzymes. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 3898-3906.	2.4	26
39	Flow-homogeneous electrochemical sensing system based on 2D metal-organic framework nanozyme for successive microRNA assay. <i>Biosensors and Bioelectronics</i> , 2022, 206, 114120.	5.3	26
40	One-step synthesis of fluorescent organic nanoparticles: The application to label-free ratiometric fluorescent pH sensor. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 1479-1486.	4.0	25
41	New approaches to NAD(P)H regeneration in the biosynthesis systems. <i>World Journal of Microbiology and Biotechnology</i> , 2018, 34, 141.	1.7	24
42	Enzymatic biofuel cell-based self-powered biosensing of protein kinase activity and inhibition via thiophosphorylation-mediated interface engineering. <i>Chemical Communications</i> , 2018, 54, 5438-5441.	2.2	23
43	A universal one-pot assay strategy based on bio-inorganic cascade catalysts for different analytes by changing pH-dependent activity of enzymes on enzyme mimics. <i>Sensors and Actuators B: Chemical</i> , 2019, 286, 460-467.	4.0	22
44	A label-free photoelectrochemical immunosensor for detection of the milk allergen β -lactoglobulin based on Ag ₂ S-sensitized spindle-shaped BiVO ₄ /BiOBr heterojunction by an in situ growth method. <i>Analytica Chimica Acta</i> , 2020, 1140, 122-131.	2.6	22
45	Three-dimensional donor-acceptor-type photoactive material/conducting polyaniline hydrogel complex for sensitive photocathodic enzymatic bioanalysis. <i>Biosensors and Bioelectronics</i> , 2020, 158, 112179.	5.3	21
46	A Thioflavin T-induced G-Quadruplex Fluorescent Biosensor for Target DNA Detection. <i>Analytical Sciences</i> , 2018, 34, 149-153.	0.8	20
47	Green fluorescent carbon quantum dots as a label-free probe for rapid and sensitive detection of hematin. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 212, 167-172.	2.0	20
48	Novel glucose sensor with Au@Ag heterogeneous nanorods based on electrocatalytic reduction of hydrogen peroxide at negative potential. <i>Journal of Electroanalytical Chemistry</i> , 2015, 742, 84-89.	1.9	18
49	Crystal Violet-Sensitized Direct Z-Scheme Heterojunction Coupled with a G-Wire Superstructure for Photoelectrochemical Sensing of Uracil-DNA Glycosylase. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 15881-15889.	4.0	18
50	Fe(III) Mixed IP6@Au NPs with Enhanced SERS Activity for Detection of 4-ATP. <i>Scientific Reports</i> , 2020, 10, 5752.	1.6	17
51	Bioinspired Nanozymes with pH-Independent and Metal Ions-Controllable Activity: Field-Programmable Logic Conversion of Sole Logic Gate System. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1800207.	1.2	16
52	ZIF-8@GMP-Tb nanocomplex for ratiometric fluorescent detection of alkaline phosphatase activity. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 264, 120230.	2.0	15
53	Graphene-Based Nanomaterials for Dental Applications: Principles, Current Advances, and Future Outlook. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 804201.	2.0	15
54	A low-background fluorescent aptasensor for acetamiprid detection based on DNA three-way junction-formed G-quadruplexes and graphene oxide. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 2071-2079.	1.9	14

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55	Catalyst-Free Spontaneous Polymerization with 100% Atom Economy: Facile Synthesis of Photoresponsive Polysulfonates with Multifunctionalities. <i>Jacs Au</i> , 2021, 1, 344-353.	3.6	14
56	Catalase active metal-organic framework synthesized by ligand regulation for the dual detection of glucose and cysteine. <i>Analytica Chimica Acta</i> , 2020, 1131, 118-125.	2.6	12
57	A visual detection of human immunodeficiency virus gene using ratiometric method enabled by phenol red and target-induced catalytic hairpin assembly. <i>Talanta</i> , 2020, 219, 121202.	2.9	12
58	Taking full advantage of the structure and multi-activities of mineralized microbial surface-displayed enzymes: Portable three-in-one organophosphate pesticides assay device. <i>Chemical Engineering Journal</i> , 2022, 429, 132317.	6.6	12
59	Redox induced dual-signal optical sensor of carbon dots/MnO ₂ nanosheets based on fluorescence and second-order scattering for the detection of ascorbic acid. <i>Mikrochimica Acta</i> , 2020, 187, 475.	2.5	11
60	A Novel Scheme to Obtain Y ₂ O ₃ :Er ³⁺ Upconversion Luminescent Hollow Nanofibers via Precursor Templating. <i>Journal of the American Ceramic Society</i> , 2015, 98, 2817-2822.	1.9	10
61	Rational design of engineered microbial cell surface multi-enzyme co-display system for sustainable NADH regeneration from low-cost biomass. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2018, 45, 111-121.	1.4	10
62	A hybrid material composed of guanine-rich single stranded DNA and cobalt(III) oxyhydroxide (CoOOH) nanosheets as a fluorescent probe for ascorbic acid via formation of a complex between G-quadruplex and thioflavin T. <i>Mikrochimica Acta</i> , 2019, 186, 156.	2.5	10
63	A ratiometric optical strategy for bromide and iodide ion sensing based on target-induced competitive coordination of a metal-organic nanosystem. <i>Journal of Materials Chemistry C</i> , 2020, 8, 11517-11524.	2.7	9
64	pH-sensitive fluorescent organic nanoparticles: Off-on fluorescent detection of furfural in transformer oil. <i>Talanta</i> , 2019, 197, 383-389.	2.9	8
65	Denatured proteins show new vitality: Green synthesis of germanium oxide hollow microspheres with versatile functions by denaturing proteins around bubbles. <i>Aggregate</i> , 2023, 4, .	5.2	8
66	A sialic acid aldolase from <i>Peptoclostridium difficile</i> NAP08 with 4-hydroxy-2-oxo-pentanoate aldolase activity. <i>Enzyme and Microbial Technology</i> , 2016, 92, 99-106.	1.6	6
67	Rational Integration of Biomineralization, Microbial Surface Display, and Carbon Nanocomposites: Ultrasensitive and Selective Biosensor for Traces of Pesticides. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801332.	1.9	5
68	White Peroxidase-Mimicking Nanozymes: White Peroxidase-Mimicking Nanozymes: Colorimetric Pesticide Assay without Interferences of O ₂ and Color (Adv. Funct. Mater. 28/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070184.	7.8	5
69	Simultaneous detection of five flavoring agents in chewing gum by ultrasound-microwave synergistic extraction coupled with gas chromatography. <i>Scientific Reports</i> , 2019, 9, 12085.	1.6	4