Yu Lei

List of Publications by Year
in descending order

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93 papers	4,790 citations	87888 38 h-index	98798 67 g-index
95 all docs	95 docs citations	95 times ranked	7159 citing authors

#	Article	IF	Citations
1	Ammonia gas sensors: A comprehensive review. Talanta, 2019, 204, 713-730.	5.5	359
2	CuO Nanospheres Based Nonenzymatic Glucose Sensor. Electroanalysis, 2008, 20, 2482-2486.	2.9	316
3	CuO nanowires based sensitive and selective non-enzymatic glucose detection. Sensors and Actuators B: Chemical, 2014, 191, 86-93.	7.8	225
4	Solid-state gas sensors for high temperature applications â€“ a review. Journal of Materials Chemistry A, 2014, 2, 9919-9943.	10.3	223
5	Molybdenum Trioxide (Î±-MoO₃) Nanoribbons for Ultrasensitive Ammonia (NH₃) Gas Detection: Integrated Experimental and Density Functional Theory Simulation Studies. ACS Applied Materials & Interfaces, 2019, 11, 10697-10706.	8.0	174
6	Novel Signalâ€Amplifying Fluorescent Nanofibers for Nakedâ€Eyeâ€Based Ultrasensitive Detection of Buried Explosives and Explosive Vapors. Advanced Functional Materials, 2012, 22, 3547-3555.	14.9	167
7	Microwave-assisted ultrafast and facile synthesis of fluorescent carbon nanoparticles from a single precursor: preparation, characterization and their application for the highly selective detection of explosive picric acid. Journal of Materials Chemistry A, 2016, 4, 4161-4171.	10.3	165
8	Porphyrin Functionalized Graphene for Sensitive Electrochemical Detection of Ultratrace Explosives. Electroanalysis, 2011, 23, 885-893.	2.9	151
9	Ammonia Gas Sensor Using Polypyrroleâ€Coated TiO₂/ZnO Nanofibers. Electroanalysis, 2009, 21, 1432-1438.	2.9	150
10	Mini review: Recent progress in RT-LAMP enabled COVID-19 detection. Sensors and Actuators Reports, 2020, 2, 100017.	4.4	130
11	A batch-mode cube microbial fuel cell based â€œshockâ€•biosensor for wastewater quality monitoring. Biosensors and Bioelectronics, 2014, 62, 308-314.	10.1	128
12	A Biocompatible and Biodegradable Protein Hydrogel with Green and Red Autofluorescence: Preparation, Characterization and In Vivo Biodegradation Tracking and Modeling. Scientific Reports, 2016, 6, 19370.	3.3	119
13	Solid lipid nanoparticles coated with cross-linked polymeric double layer for oral delivery of curcumin. Colloids and Surfaces B: Biointerfaces, 2016, 148, 1-11.	5.0	112
14	A highly efficient organophosphorus pesticides sensor based on CuO nanowiresâ€“SWCNTs hybrid nanocomposite. Sensors and Actuators B: Chemical, 2014, 199, 410-417.	7.8	111
15	Plant Esteraseâ€“Chitosan/Gold Nanoparticlesâ€“Graphene Nanosheet Composite-Based Biosensor for the Ultrasensitive Detection of Organophosphate Pesticides. Journal of Agricultural and Food Chemistry, 2015, 63, 10319-10326.	5.2	88
16	Highly sensitive H2S sensor based on template-synthesized CuO nanowires. RSC Advances, 2012, 2, 2302.	3.6	84
17	Vertically Aligned CuO Nanowires Based Electrode for Amperometric Detection of Hydrogen Peroxide. Electroanalysis, 2008, 20, 2153-2157.	2.9	80
18	Fundamental Study of Electrospun Pyreneâ€“Polyethersulfone Nanofibers Using Mixed Solvents for Sensitive and Selective Explosives Detection in Aqueous Solution. ACS Applied Materials & Interfaces, 2015, 7, 13189-13197.	8.0	77

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19	Platinumâ€“copper nanotube electrocatalyst with enhanced activity and durability for oxygen reduction reactions. Journal of Materials Chemistry A, 2013, 1, 12293.	10.3	72
20	Recent progress in the detection of emerging contaminants PFASs. Journal of Hazardous Materials, 2021, 408, 124437.	12.4	72
21	ELP-OPH/BSA/TiO2 nanofibers/c-MWCNTs based biosensor for sensitive and selective determination of p-nitrophenyl substituted organophosphate pesticides in aqueous system. Biosensors and Bioelectronics, 2016, 85, 935-942.	10.1	66
22	Flat microliter membrane-based microbial fuel cell as â€œon-line sticker sensorâ€•for self-supported in situ monitoring of wastewater shocks. Bioresource Technology, 2015, 197, 244-251.	9.6	63
23	Functional self-healing materials and their potential applications in biomedical engineering. Advanced Composites and Hybrid Materials, 2018, 1, 94-113.	21.1	61
24	A fluorescent polymer film with self-assembled three-dimensionally ordered nanopores: preparation, characterization and its application for explosives detection. Journal of Materials Chemistry A, 2014, 2, 14613-14621.	10.3	58
25	Biosensor for direct determination of fenitrothion and EPN using recombinant Pseudomonas putida JS444 with surface-expressed organophosphorous hydrolase. 2. Modified carbon paste electrode. Applied Biochemistry and Biotechnology, 2007, 136, 243-250.	2.9	52
26	Sensitive Hydrazine Detection Using a Porous Mn₂O₃ Nanofibersâ€Based Sensor. Electroanalysis, 2011, 23, 1245-1251.	2.9	52
27	CeO2 nanofibers for in situ O2 and CO sensing in harsh environments. RSC Advances, 2012, 2, 5193.	3.6	51
28	Pt-CeO2 nanofibers based high-frequency impedancemetric gas sensor for selective CO and C3H8 detection in high-temperature harsh environment. Sensors and Actuators B: Chemical, 2013, 188, 1141-1147.	7.8	48
29	In situ microfluidic fabrication of SERS nanostructures for highly sensitive fingerprint microfluidic-SERS sensing. RSC Advances, 2015, 5, 14081-14089.	3.6	46
30	Functionalized aligned silver nanorod arrays for glucose sensing through surface enhanced Raman scattering. RSC Advances, 2014, 4, 23382.	3.6	45
31	Glucose Biosensor Using Glucose Oxidase and Electrospun Mn₂O₃â€Ag Nanofibers. Electroanalysis, 2011, 23, 1912-1920.	2.9	44
32	From Cu2(OH)3Cl to nanostructured sisal-like Cu(OH)2 and CuO: Synthesis and characterization. Journal of Applied Physics, 2009, 105, .	2.5	43
33	Self-healing of thermally-induced, biocompatible and biodegradable protein hydrogel. RSC Advances, 2016, 6, 56183-56192.	3.6	43
34	Sensitive and Selective NH3 Monitoring at Room Temperature Using ZnO Ceramic Nanofibers Decorated with Poly(styrene sulfonate). Sensors, 2018, 18, 1058.	3.8	43
35	Protein-based sensitive, selective and rapid fluorescence detection of picric acid in aqueous media. Analytical Methods, 2014, 6, 8464-8468.	2.7	42
36	A high-performance electrochemical sensor for biologically meaningful l-cysteine based on a new nanostructured l-cysteine electrocatalyst. Analytica Chimica Acta, 2018, 1019, 103-110.	5.4	42

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37	Exposure, health effects, sensing, and remediation of the emerging PFAS contaminants â€“ Scientific challenges and potential research directions. Science of the Total Environment, 2021, 780, 146399.	8.0	42
38	Real-time in situ sensing of multiple water quality related parameters using micro-electrode array (MEA) fabricated by inkjet-printing technology (IPT). Sensors and Actuators B: Chemical, 2016, 237, 1108-1119.	7.8	41
39	Real-Time in Situ Monitoring of Nitrogen Dynamics in Wastewater Treatment Processes using Wireless, Solid-State, and Ion-Selective Membrane Sensors. Environmental Science & Technology, 2019, 53, 3140-3148.	10.0	40
40	A critical review: Recent advances in â€œdigitalâ€•biomolecule detection with single copy sensitivity. Biosensors and Bioelectronics, 2021, 177, 112901.	10.1	40
41	Toward Long-Term Accurate and Continuous Monitoring of Nitrate in Wastewater Using Poly(tetrafluoroethylene) (PTFE)â€“Solid-State Ion-Selective Electrodes (S-ISEs). ACS Sensors, 2020, 5, 3182-3193.	7.8	39
42	Single-Walled Carbon Nanotube Based Real-Time Organophosphate Detector. Electroanalysis, 2007, 19, 616-619.	2.9	38
43	Regenerable Leptin Immunosensor Based on Protein G Immobilized Auâ€Pyrrole Propylic Acidâ€Polypyrrole Nanocomposite. Electroanalysis, 2010, 22, 1078-1083.	2.9	37
44	Rapid and fingerprinted monitoring of pesticide methyl parathion on the surface of fruits/leaves as well as in surface water enabled by gold nanorods based casting-and-sensing SERS platform. Talanta, 2019, 200, 84-90.	5.5	36
45	Pd/TiO₂ Nanofibrous Membranes and Their Application in Hydrogen Sensing. Journal of Physical Chemistry C, 2009, 113, 16402-16407.	3.1	35
46	Electrochemical sensors for nitrogen species: A review. Sensors and Actuators Reports, 2020, 2, 100022.	4.4	31
47	Highly sensitive surface-enhanced Raman scattering using vertically aligned silver nanopetals. RSC Advances, 2012, 2, 1439-1443.	3.6	30
48	Dual functional rhodium oxide nanocorals enabled sensor for both non-enzymatic glucose and solid-state pH sensing. Biosensors and Bioelectronics, 2018, 112, 136-142.	10.1	28
49	Forward-Looking Roadmaps for Long-Term Continuous Water Quality Monitoring: Bottlenecks, Innovations, and Prospects in a Critical Review. Environmental Science & Technology, 2022, 56, 5334-5354.	10.0	26
50	Repetitive Biomimetic Self-healing of Ca2+-Induced Nanocomposite Protein Hydrogels. Scientific Reports, 2016, 6, 30804.	3.3	25
51	Outer membrane vesicles (OMVs) enabled bioâ€applications: A critical review. Biotechnology and Bioengineering, 2022, 119, 34-47.	3.3	25
52	Realâ€Time Nitrophenol Detection Using Singleâ€Walled Carbon Nanotube Based Devices. Electroanalysis, 2008, 20, 558-562.	2.9	24
53	Transmittance and Reflectance Studies of Thermotropic Material for a Novel Building Integrated Concentrating Photovoltaic (BICPV) â€˜Smart Windowâ€™ System. Energies, 2017, 10, 1889.	3.1	24
54	Long-term continuous and real-time in situ monitoring of Pb(II) toxic contaminants in wastewater using solid-state ion selective membrane (S-ISM) Pb and pH auto-correction assembly. Journal of Hazardous Materials, 2020, 400, 123299.	12.4	23

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55	Synthesis of Single Crystalline Tin Nanorods and Their Application as Nanosoldering Materials. Journal of Physical Chemistry C, 2010, 114, 21938-21942.	3.1	22
56	Yale School of Public Health Symposium: An overview of the challenges and opportunities associated with per- and polyfluoroalkyl substances (PFAS). Science of the Total Environment, 2021, 778, 146192.	8.0	22
57	Sensitive and Selective Electrochemical Determination of Lâ€Cysteine Based on Cerium Oxide Nanofibers Modified Screen Printed Carbon Electrode. Electroanalysis, 2018, 30, 1133-1139.	2.9	20
58	La0.67Sr0.33MnO3 nanofibers for in situ, real-time, and stable high temperature oxygen sensing. RSC Advances, 2012, 2, 3872.	3.6	19
59	Tunable pâ€“n transition behaviour of a p-La_{0.67}Sr_{0.33}MnO₃/n-CeO₂nanofibers heterojunction for the development of selective high temperature propane sensors. Journal of Materials Chemistry A, 2014, 2, 11651.	10.3	17
60	An Injectable PEG-BSA-Coumarin-GOx Hydrogel for Fluorescence Turn-on Glucose Detection. Applied Biochemistry and Biotechnology, 2015, 177, 1115-1126.	2.9	16
61	Preparation of Quasi-Three-Dimensional Porous Ag and Ag-NiO Nanofibrous Mats for SERS Application. Sensors, 2018, 18, 2862.	3.8	16
62	Carbonized Hemoglobin Nanofibers for Enhanced H₂O₂ Detection. Electroanalysis, 2010, 22, 1911-1917.	2.9	15
63	Genetically Engineered Bacterial Outer Membrane Vesicles with Expressed Nanoluciferase Reporter for in Vivo Bioluminescence Kinetic Modeling through Noninvasive Imaging. ACS Applied Bio Materials, 2019, 2, 5608-5615.	4.6	15
64	Preparation, characterization and application of a protein hydrogel with rapid selfâ€healing and unique autofluoresent multiâ€functionalities. Journal of Biomedical Materials Research - Part A, 2019, 107, 81-91.	4.0	15
65	mesoâ€Tritolylcorroleâ€Functionalized Singleâ€walled Carbon Nanotube Donorï£¿Acceptor Nanocomposites for NO₂ Detection. Electroanalysis, 2012, 24, 1348-1355.	2.9	14
66	Nitrogenâ€doped Hollow Co₃O₄ Nanofibers for both Solidâ€state pH Sensing and Improved Nonâ€enzymatic Glucose Sensing. Electroanalysis, 2019, 31, 678-687.	2.9	14
67	Real-time in situ auto-correction of K+ interference for continuous and long-term NH4+ monitoring in wastewater using solid-state ion selective membrane (S-ISM) sensor assembly. Environmental Research, 2020, 189, 109891.	7.5	14
68	Enhancing the Understanding of Soil Nitrogen Fate Using a 3D-Electrospray Sensor Roll Casted with a Thin-Layer Hydrogel. Environmental Science & Technology, 2022, 56, 4905-4914.	10.0	14
69	A Simple SERS-Based Trace Sensing Platform Enabled by AuNPs-Analyte/AuNPs Double-Decker Structure on Wax-Coated Hydrophobic Surface. Frontiers in Chemistry, 2018, 6, 482.	3.6	13
70	Novel green and red autofluorescent protein nanoparticles for cell imaging and in vivo biodegradation imaging and modeling. RSC Advances, 2016, 6, 50091-50099.	3.6	12
71	Electrospun Ceâ€“Niâ€“O composite nanofibers for highly selective propane detection at high temperature based on its rapid reaction kinetics. Journal of Materials Chemistry A, 2014, 2, 14038.	10.3	11
72	â€œStable-on-the-Tableâ€•Biosensors: Hemoglobin-Poly (Acrylic Acid) Nanogel BioElectrodes with High Thermal Stability and Enhanced Electroactivity. Sensors, 2015, 15, 23868-23885.	3.8	11

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73	Natural or Natural-Synthetic Hybrid Polymer-Based Fluorescent Polymeric Materials for Bio-imaging-Related Applications. Applied Biochemistry and Biotechnology, 2017, 183, 461-487.	2.9	11
74	Whole Slide Imaging for High-Throughput Sensing Antibiotic Resistance at Single-Bacterium Level and Its Application to Rapid Antibiotic Susceptibility Testing. Molecules, 2019, 24, 2441.	3.8	10
75	Using Bayesian Inference Framework towards Identifying Gas Species and Concentration from High Temperature Resistive Sensor Array Data. Journal of Sensors, 2015, 2015, 1-10.	1.1	9
76	Protein Microspheres with Unique Green and Red Autofluorescence for Noninvasively Tracking and Modeling Their in Vivo Biodegradation. ACS Biomaterials Science and Engineering, 2016, 2, 954-962.	5.2	9
77	Digital, Rapid, Accurate, and Label-Free Enumeration of Viable Microorganisms Enabled by Custom-Built On-Glass-Slide Culturing Device and Microscopic Scanning. Sensors, 2018, 18, 3700.	3.8	9
78	Synthesis of tin nanodendrites via galvanic replacement reaction and their thermal conversion to nanodendritic tin oxide for ultrasensitive electrochemical sensing. RSC Advances, 2011, 1, 1500.	3.6	8
79	Bimodular high temperature planar oxygen gas sensor. Frontiers in Chemistry, 2014, 2, 57.	3.6	8
80	Genetically engineered bio-nanoparticles with co-expressed enzyme reporter and recognition element for IgG immunoassay. Sensors and Actuators Reports, 2019, 1, 100003.	4.4	8
81	Flat flexible thin milli-electrode array for real-time in situ water quality monitoring in distribution systems. Environmental Science: Water Research and Technology, 2017, 3, 865-874.	2.4	7
82	Towards high resolution monitoring of water flow velocity using flat flexible thin mm-sized resistance-typed sensor film (MRSF). Water Research X, 2019, 4, 100028.	6.1	7
83	High-specificity antibodies and detection methods for quantifying phosphorylated tau from clinical samples. Antibody Therapeutics, 2021, 4, 34-44.	1.9	7
84	High-fidelity profiling and modeling of heterogeneity in wastewater systems using milli-electrode array (MEA): Toward high-efficiency and energy-saving operation. Water Research, 2019, 165, 114971.	11.3	5
85	SERS-Enabled Sensitive Detection of Plant Volatile Biomarker Methyl Salicylate. Journal of Physical Chemistry C, 2022, 126, 772-778.	3.1	5
86	Comparison of spherical and non-spherical particles in microchannels under dielectrophoretic force. Microsystem Technologies, 2015, 21, 381-391.	2.0	4
87	Dual amplification enabled counting based ultrasensitive enzyme-linked immunosorbent assay. Analytica Chimica Acta, 2022, 1198, 339510.	5.4	4
88	A whole area scanningâ€“enabled direct-counting strategy for studying blocking efficiency in mitigating protein-solid surface binding. Analytical and Bioanalytical Chemistry, 2021, 413, 1493-1502.	3.7	3
89	Fluorescence Quenching Kinetics of Py Excimer in PS Films. Materials Research Society Symposia Proceedings, 2014, 1629, 1.	0.1	1
90	Integrated Experimental and Modeling Study of Enzymatic Degradation Using Novel Autofluorescent BSA Microspheres. Langmuir, 2018, 34, 191-197.	3.5	1

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91	Ultrasensitive ammonia (NH3) gas sensor: DFT Simulation-Directed Selection of High-Performance Metal-Doped Molybdenum Tri-oxide (Î±-MoO3) Nanoribbons for NH3 Detection. , 2019, , .		1
92	BIOSENSORS EDITORIAL. Analytical Letters, 2012, 45, 111-112.	1.8	0
93	Flat Flexible Thin Milli-electrode Array for Real-time in situ Water Quality Monitoring in Distribution Systems. Proceedings of the Water Environment Federation, 2017, 2017, 5598-5617.	0.0	0