

# 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	Outer membrane vesicles (OMVs) enabled bio-applications: A critical review. <i>Biotechnology and Bioengineering</i> , 2022, 119, 34-47.	3.3	25
2	SERS-Enabled Sensitive Detection of Plant Volatile Biomarker Methyl Salicylate. <i>Journal of Physical Chemistry C</i> , 2022, 126, 772-778.	3.1	5
3	Dual amplification enabled counting based ultrasensitive enzyme-linked immunosorbent assay. <i>Analytica Chimica Acta</i> , 2022, 1198, 339510.	5.4	4
4	Enhancing the Understanding of Soil Nitrogen Fate Using a 3D-Electrospray Sensor Roll Casted with a Thin-Layer Hydrogel. <i>Environmental Science &amp; Technology</i> , 2022, 56, 4905-4914.	10.0	14
5	Forward-Looking Roadmaps for Long-Term Continuous Water Quality Monitoring: Bottlenecks, Innovations, and Prospects in a Critical Review. <i>Environmental Science &amp; Technology</i> , 2022, 56, 5334-5354.	10.0	26
6	Recent progress in the detection of emerging contaminants PFASs. <i>Journal of Hazardous Materials</i> , 2021, 408, 124437.	12.4	72
7	High-specificity antibodies and detection methods for quantifying phosphorylated tau from clinical samples. <i>Antibody Therapeutics</i> , 2021, 4, 34-44.	1.9	7
8	A whole area scanning-enabled direct-counting strategy for studying blocking efficiency in mitigating protein-solid surface binding. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 1493-1502.	3.7	3
9	A critical review: Recent advances in digital-biomolecule detection with single copy sensitivity. <i>Biosensors and Bioelectronics</i> , 2021, 177, 112901.	10.1	40
10	Yale School of Public Health Symposium: An overview of the challenges and opportunities associated with per- and polyfluoroalkyl substances (PFAS). <i>Science of the Total Environment</i> , 2021, 778, 146192.	8.0	22
11	Exposure, health effects, sensing, and remediation of the emerging PFAS contaminants – Scientific challenges and potential research directions. <i>Science of the Total Environment</i> , 2021, 780, 146399.	8.0	42
12	Mini review: Recent progress in RT-LAMP enabled COVID-19 detection. <i>Sensors and Actuators Reports</i> , 2020, 2, 100017.	4.4	130
13	Real-time in situ auto-correction of K <sup>+</sup> interference for continuous and long-term NH <sub>4</sub> <sup>+</sup> monitoring in wastewater using solid-state ion selective membrane (S-ISM) sensor assembly. <i>Environmental Research</i> , 2020, 189, 109891.	7.5	14
14	Electrochemical sensors for nitrogen species: A review. <i>Sensors and Actuators Reports</i> , 2020, 2, 100022.	4.4	31
15	Toward Long-Term Accurate and Continuous Monitoring of Nitrate in Wastewater Using Poly(tetrafluoroethylene) (PTFE)-Solid-State Ion-Selective Electrodes (S-ISEs). <i>ACS Sensors</i> , 2020, 5, 3182-3193.	7.8	39
16	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. <i>Journal of Hazardous Materials</i> , 2020, 400, 123299.	12.4	23
17	Whole Slide Imaging for High-Throughput Sensing Antibiotic Resistance at Single-Bacterium Level and Its Application to Rapid Antibiotic Susceptibility Testing. <i>Molecules</i> , 2019, 24, 2441.	3.8	10
18	High-fidelity profiling and modeling of heterogeneity in wastewater systems using milli-electrode array (MEA): Toward high-efficiency and energy-saving operation. <i>Water Research</i> , 2019, 165, 114971.	11.3	5

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19	Towards high resolution monitoring of water flow velocity using flat flexible thin mm-sized resistance-typed sensor film (MRSF). <i>Water Research</i> , 2019, 4, 100028.	6.1	7
20	Ammonia gas sensors: A comprehensive review. <i>Talanta</i> , 2019, 204, 713-730.	5.5	359
21	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. <i>Talanta</i> , 2019, 200, 84-90.	5.5	36
22	Molybdenum Trioxide ( $\text{I}\pm\text{-MoO}_3$ ) Nanoribbons for Ultrasensitive Ammonia ( $\text{NH}_3$ ) Gas Detection: Integrated Experimental and Density Functional Theory Simulation Studies. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 10697-10706.	8.0	174
23	Real-Time in Situ Monitoring of Nitrogen Dynamics in Wastewater Treatment Processes using Wireless, Solid-State, and Ion-Selective Membrane Sensors. <i>Environmental Science &amp; Technology</i> , 2019, 53, 3140-3148.	10.0	40
24	Genetically engineered bio-nanoparticles with co-expressed enzyme reporter and recognition element for IgG immunoassay. <i>Sensors and Actuators Reports</i> , 2019, 1, 100003.	4.4	8
25	Ultrasensitive ammonia ( $\text{NH}_3$ ) gas sensor: DFT Simulation-Directed Selection of High-Performance Metal-Doped Molybdenum Tri-oxide ( $\text{I}\pm\text{-MoO}_3$ ) Nanoribbons for $\text{NH}_3$ Detection. , 2019, , .		1
26	Genetically Engineered Bacterial Outer Membrane Vesicles with Expressed Nanoluciferase Reporter for <i>in Vivo</i> Bioluminescence Kinetic Modeling through Noninvasive Imaging. <i>ACS Applied Bio Materials</i> , 2019, 2, 5608-5615.	4.6	15
27	Preparation, characterization and application of a protein hydrogel with rapid self-healing and unique autofluorescent multi-functionalities. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 81-91.	4.0	15
28	Nitrogen-doped Hollow $\text{Co}_3\text{O}_4$ Nanofibers for both Solid-state pH Sensing and Improved Non-enzymatic Glucose Sensing. <i>Electroanalysis</i> , 2019, 31, 678-687.	2.9	14
29	A high-performance electrochemical sensor for biologically meaningful l-cysteine based on a new nanostructured l-cysteine electrocatalyst. <i>Analytica Chimica Acta</i> , 2018, 1019, 103-110.	5.4	42
30	Sensitive and Selective Electrochemical Determination of L-Cysteine Based on Cerium Oxide Nanofibers Modified Screen Printed Carbon Electrode. <i>Electroanalysis</i> , 2018, 30, 1133-1139.	2.9	20
31	Dual functional rhodium oxide nanocorals enabled sensor for both non-enzymatic glucose and solid-state pH sensing. <i>Biosensors and Bioelectronics</i> , 2018, 112, 136-142.	10.1	28
32	Integrated Experimental and Modeling Study of Enzymatic Degradation Using Novel Autofluorescent BSA Microspheres. <i>Langmuir</i> , 2018, 34, 191-197.	3.5	1
33	Functional self-healing materials and their potential applications in biomedical engineering. <i>Advanced Composites and Hybrid Materials</i> , 2018, 1, 94-113.	21.1	61
34	Digital, Rapid, Accurate, and Label-Free Enumeration of Viable Microorganisms Enabled by Custom-Built On-Glass-Slide Culturing Device and Microscopic Scanning. <i>Sensors</i> , 2018, 18, 3700.	3.8	9
35	A Simple SERS-Based Trace Sensing Platform Enabled by AuNPs-Analyte/AuNPs Double-Decker Structure on Wax-Coated Hydrophobic Surface. <i>Frontiers in Chemistry</i> , 2018, 6, 482.	3.6	13
36	Preparation of Quasi-Three-Dimensional Porous Ag and Ag-NiO Nanofibrous Mats for SERS Application. <i>Sensors</i> , 2018, 18, 2862.	3.8	16

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37	Sensitive and Selective NH <sub>3</sub> Monitoring at Room Temperature Using ZnO Ceramic Nanofibers Decorated with Poly(styrene sulfonate). <i>Sensors</i> , 2018, 18, 1058.	3.8	43
38	Flat flexible thin milli-electrode array for real-time in situ water quality monitoring in distribution systems. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 865-874.	2.4	7
39	Natural or Natural-Synthetic Hybrid Polymer-Based Fluorescent Polymeric Materials for Bio-imaging-Related Applications. <i>Applied Biochemistry and Biotechnology</i> , 2017, 183, 461-487.	2.9	11
40	Transmittance and Reflectance Studies of Thermotropic Material for a Novel Building Integrated Concentrating Photovoltaic (BICPV) "Smart Window"™ System. <i>Energies</i> , 2017, 10, 1889.	3.1	24
41	Flat Flexible Thin Milli-electrode Array for Real-time in situ Water Quality Monitoring in Distribution Systems. <i>Proceedings of the Water Environment Federation</i> , 2017, 2017, 5598-5617.	0.0	0
42	Novel green and red autofluorescent protein nanoparticles for cell imaging and in vivo biodegradation imaging and modeling. <i>RSC Advances</i> , 2016, 6, 50091-50099.	3.6	12
43	Solid lipid nanoparticles coated with cross-linked polymeric double layer for oral delivery of curcumin. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 148, 1-11.	5.0	112
44	A Biocompatible and Biodegradable Protein Hydrogel with Green and Red Autofluorescence: Preparation, Characterization and In Vivo Biodegradation Tracking and Modeling. <i>Scientific Reports</i> , 2016, 6, 19370.	3.3	119
45	Real-time in situ sensing of multiple water quality related parameters using micro-electrode array (MEA) fabricated by inkjet-printing technology (IPT). <i>Sensors and Actuators B: Chemical</i> , 2016, 237, 1108-1119.	7.8	41
46	Repetitive Biomimetic Self-healing of Ca <sup>2+</sup> -Induced Nanocomposite Protein Hydrogels. <i>Scientific Reports</i> , 2016, 6, 30804.	3.3	25
47	ELP-OPH/BSA/TiO <sub>2</sub> nanofibers/c-MWCNTs based biosensor for sensitive and selective determination of p-nitrophenyl substituted organophosphate pesticides in aqueous system. <i>Biosensors and Bioelectronics</i> , 2016, 85, 935-942.	10.1	66
48	Protein Microspheres with Unique Green and Red Autofluorescence for Noninvasively Tracking and Modeling Their in Vivo Biodegradation. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 954-962.	5.2	9
49	Self-healing of thermally-induced, biocompatible and biodegradable protein hydrogel. <i>RSC Advances</i> , 2016, 6, 56183-56192.	3.6	43
50	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. <i>Journal of Materials Chemistry A</i> , 2016, 4, 4161-4171.	10.3	165
51	"Stable-on-the-Table" Biosensors: Hemoglobin-Poly (Acrylic Acid) Nanogel BioElectrodes with High Thermal Stability and Enhanced Electroactivity. <i>Sensors</i> , 2015, 15, 23868-23885.	3.8	11
52	Using Bayesian Inference Framework towards Identifying Gas Species and Concentration from High Temperature Resistive Sensor Array Data. <i>Journal of Sensors</i> , 2015, 2015, 1-10.	1.1	9
53	Flat microliter membrane-based microbial fuel cell as "on-line sticker sensor" for self-supported in situ monitoring of wastewater shocks. <i>Bioresource Technology</i> , 2015, 197, 244-251.	9.6	63
54	In situ microfluidic fabrication of SERS nanostructures for highly sensitive fingerprint microfluidic-SERS sensing. <i>RSC Advances</i> , 2015, 5, 14081-14089.	3.6	46

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55	Fundamental Study of Electrospun Pyrene-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
56	An Injectable PEG-BSA-Coumarin-GOx Hydrogel for Fluorescence Turn-on Glucose Detection. Applied Biochemistry and Biotechnology, 2015, 177, 1115-1126.	2.9	16
57	Plant Esterase-Chitosan/Gold Nanoparticles-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
58	Comparison of spherical and non-spherical particles in microchannels under dielectrophoretic force. Microsystem Technologies, 2015, 21, 381-391.	2.0	4
59	Bimodular high temperature planar oxygen gas sensor. Frontiers in Chemistry, 2014, 2, 57.	3.6	8
60	Fluorescence Quenching Kinetics of Py Excimer in PS Films. Materials Research Society Symposia Proceedings, 2014, 1629, 1.	0.1	1
61	Solid-state gas sensors for high temperature applications - a review. Journal of Materials Chemistry A, 2014, 2, 9919-9943.	10.3	223
62	A highly efficient organophosphorus pesticides sensor based on CuO nanowires-SWCNTs hybrid nanocomposite. Sensors and Actuators B: Chemical, 2014, 199, 410-417.	7.8	111
63	CuO nanowires based sensitive and selective non-enzymatic glucose detection. Sensors and Actuators B: Chemical, 2014, 191, 86-93.	7.8	225
64	Electrospun Ce-Ni-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
65	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
66	A batch-mode cube microbial fuel cell based -biosensor for wastewater quality monitoring. Biosensors and Bioelectronics, 2014, 62, 308-314.	10.1	128
67	Protein-based sensitive, selective and rapid fluorescence detection of picric acid in aqueous media. Analytical Methods, 2014, 6, 8464-8468.	2.7	42
68	Tunable n transition behaviour of a p-La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> /n-CeO <sub>2</sub> nanofibers heterojunction for the development of selective high temperature propane sensors. Journal of Materials Chemistry A, 2014, 2, 11651.	10.3	17
69	Functionalized aligned silver nanorod arrays for glucose sensing through surface enhanced Raman scattering. RSC Advances, 2014, 4, 23382.	3.6	45
70	Platinum-copper nanotube electrocatalyst with enhanced activity and durability for oxygen reduction reactions. Journal of Materials Chemistry A, 2013, 1, 12293.	10.3	72
71	Pt-CeO <sub>2</sub> nanofibers based high-frequency impedancemetric gas sensor for selective CO and C <sub>3</sub> H <sub>8</sub> detection in high-temperature harsh environment. Sensors and Actuators B: Chemical, 2013, 188, 1141-1147.	7.8	48
72	Highly sensitive H <sub>2</sub> S sensor based on template-synthesized CuO nanowires. RSC Advances, 2012, 2, 2302.	3.6	84

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73	La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> nanofibers for in situ, real-time, and stable high temperature oxygen sensing. RSC Advances, 2012, 2, 3872.	3.6	19
74	BIOSENSORS EDITORIAL. Analytical Letters, 2012, 45, 111-112.	1.8	0
75	Highly sensitive surface-enhanced Raman scattering using vertically aligned silver nanopetals. RSC Advances, 2012, 2, 1439-1443.	3.6	30
76	CeO <sub>2</sub> nanofibers for in situ O <sub>2</sub> and CO sensing in harsh environments. RSC Advances, 2012, 2, 5193.	3.6	51
77	<i>meso</i> -Tritolylcorrole-Functionalized Single-Walled Carbon Nanotube Donor/Acceptor Nanocomposites for NO <sub>2</sub> Detection. Electroanalysis, 2012, 24, 1348-1355.	2.9	14
78	Novel Signal-Amplifying Fluorescent Nanofibers for Naked-Eye-Based Ultrasensitive Detection of Buried Explosives and Explosive Vapors. Advanced Functional Materials, 2012, 22, 3547-3555.	14.9	167
79	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
80	Porphyrin Functionalized Graphene for Sensitive Electrochemical Detection of Ultratrace Explosives. Electroanalysis, 2011, 23, 885-893.	2.9	151
81	Sensitive Hydrazine Detection Using a Porous Mn <sub>2</sub> O <sub>3</sub> Nanofibers-Based Sensor. Electroanalysis, 2011, 23, 1245-1251.	2.9	52
82	Glucose Biosensor Using Glucose Oxidase and Electrospun Mn <sub>2</sub> O <sub>3</sub> -Ag Nanofibers. Electroanalysis, 2011, 23, 1912-1920.	2.9	44
83	Regenerable Leptin Immunosensor Based on Protein G Immobilized Au-Pyrrole Propylic Acid-Polypyrrole Nanocomposite. Electroanalysis, 2010, 22, 1078-1083.	2.9	37
84	Carbonized Hemoglobin Nanofibers for Enhanced H <sub>2</sub> O <sub>2</sub> Detection. Electroanalysis, 2010, 22, 1911-1917.	2.9	15
85	Synthesis of Single Crystalline Tin Nanorods and Their Application as Nanosoldering Materials. Journal of Physical Chemistry C, 2010, 114, 21938-21942.	3.1	22
86	Ammonia Gas Sensor Using Polypyrrole-Coated TiO <sub>2</sub> /ZnO Nanofibers. Electroanalysis, 2009, 21, 1432-1438.	2.9	150
87	Pd/TiO <sub>2</sub> Nanofibrous Membranes and Their Application in Hydrogen Sensing. Journal of Physical Chemistry C, 2009, 113, 16402-16407.	3.1	35
88	From Cu <sub>2</sub> (OH) <sub>3</sub> Cl to nanostructured sisal-like Cu(OH) <sub>2</sub> and CuO: Synthesis and characterization. Journal of Applied Physics, 2009, 105, .	2.5	43
89	Real-Time Nitrophenol Detection Using Single-Walled Carbon Nanotube Based Devices. Electroanalysis, 2008, 20, 558-562.	2.9	24
90	Vertically Aligned CuO Nanowires Based Electrode for Amperometric Detection of Hydrogen Peroxide. Electroanalysis, 2008, 20, 2153-2157.	2.9	80

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91	CuO Nanospheres Based Nonenzymatic Glucose Sensor. <i>Electroanalysis</i> , 2008, 20, 2482-2486.	2.9	316
92	Single-Walled Carbon Nanotube Based Real-Time Organophosphate Detector. <i>Electroanalysis</i> , 2007, 19, 616-619.	2.9	38
93	Biosensor for direct determination of fenitrothion and EPN using recombinant <i>Pseudomonas putida</i> JS444 with surface-expressed organophosphorous hydrolase. 2. Modified carbon paste electrode. <i>Applied Biochemistry and Biotechnology</i> , 2007, 136, 243-250.	2.9	52