Yi Liu

List of Publications by Year
in descending order

56	2,106	186209 28	233338 45
papers	citations	h-index	g-index

58	58	58	1990
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Surface Functionalization of Titanium with Chitosan/Gelatin via Electrophoretic Deposition: Characterization and Cell Behavior. Biomacromolecules, 2010, 11, 1254-1260.	2.6	138
2	Electroaddressing of Cell Populations by Coâ€Deposition with Calcium Alginate Hydrogels. Advanced Functional Materials, 2009, 19, 2074-2080.	7.8	115
3	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. Advanced Functional Materials, 2010, 20, 2683-2694.	7.8	109
4	Biofabrication to build the biologyâ€“device interface. Biofabrication, 2010, 2, 022002.	3.7	94
5	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. Polymers, 2015, 7, 1-46.	2.0	87
6	Coupling Electrodeposition with Layerâ€byâ€Layer Assembly to Address Proteins within Microfluidic Channels. Advanced Materials, 2011, 23, 5817-5821.	11.1	83
7	Redox-capacitor to connect electrochemistry to redox-biology. Analyst, The, 2014, 139, 32-43.	1.7	71
8	Context-Dependent Redox Properties of Natural Phenolic Materials. Biomacromolecules, 2014, 15, 1653-1662.	2.6	71
9	Redox Capacitor to Establish Bioâ€Device Redoxâ€Connectivity. Advanced Functional Materials, 2012, 22, 1409-1416.	7.8	65
10	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. Soft Matter, 2013, 9, 2703.	1.2	59
11	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. Nature Nanotechnology, 2021, 16, 688-697.	15.6	56
12	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuliâ€Responsive Materials. Advanced Functional Materials, 2012, 22, 3004-3012.	7.8	54
13	Redox-Cycling and H₂O₂ Generation by Fabricated Catecholic Films in the Absence of Enzymes. Biomacromolecules, 2011, 12, 880-888.	2.6	53
14	Biomimetic fabrication of information-rich phenolic-chitosan films. Soft Matter, 2011, 7, 9601.	1.2	51
15	Chitosan-Coated Wires: Conferring Electrical Properties to Chitosan Fibers. Biomacromolecules, 2009, 10, 858-864.	2.6	46
16	Tyrosinase-mediated grafting and crosslinking of natural phenols confers functional properties to chitosan. Biochemical Engineering Journal, 2014, 89, 21-27.	1.8	46
17	Reverse Engineering To Suggest Biologically Relevant Redox Activities of Phenolic Materials. ACS Chemical Biology, 2013, 8, 716-724.	1.6	44
18	Using a Redox Modality to Connect Synthetic Biology to Electronics: Hydrogelâ€Based Chemoâ€Electro Signal Transduction for Molecular Communication. Advanced Healthcare Materials, 2017, 6, 1600908.	3.9	44

#	Article	IF	Citations
19	Reagentless Protein Assembly Triggered by Localized Electrical Signals. Advanced Materials, 2009, 21, 984-988.	11.1	43
20	Reversible Electroaddressing of Selfâ€assembling Aminoâ€Acid Conjugates. Advanced Functional Materials, 2011, 21, 1575-1580.	7.8	42
21	Connecting Biology to Electronics: Molecular Communication via Redox Modality. Advanced Healthcare Materials, 2017, 6, 1700789.	3.9	40
22	Inâ€Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuliâ€Responsive Polysaccharides. Advanced Functional Materials, 2010, 20, 1645-1652.	7.8	36
23	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. Biomacromolecules, 2018, 19, 3502-3514.	2.6	34
24	Information processing through a bio-based redox capacitor: Signatures for redox-cycling. Bioelectrochemistry, 2014, 98, 94-102.	2.4	33
25	Electrochemical reverse engineering: A systems-level tool to probe the redox-based molecular communication of biology. Free Radical Biology and Medicine, 2017, 105, 110-131.	1.3	32
26	Orthogonal Enzymatic Reactions for the Assembly of Proteins at Electrode Addresses. Langmuir, 2009, 25, 338-344.	1.6	31
27	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. Biomacromolecules, 2016, 17, 558-563.	2.6	31
28	Redox-Based Synthetic Biology Enables Electrochemical Detection of the Herbicides Dicamba and Roundup via Rewired Escherichia coli. ACS Sensors, 2019, 4, 1180-1184.	4.0	29
29	Chitosan Biotinylation and Electrodeposition for Selective Protein Assembly. Macromolecular Bioscience, 2008, 8, 451-457.	2.1	28
30	Electroaddressing Agarose Using Fmoc-Phenylalanine as a Temporary Scaffold. Langmuir, 2011, 27, 7380-7384.	1.6	28
31	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. Analytical Chemistry, 2016, 88, 7213-7221.	3.2	27
32	Functionalizing Soft Matter for Molecular Communication. ACS Biomaterials Science and Engineering, 2015, 1, 320-328.	2.6	24
33	Selective assembly and functionalization of miniaturized redox capacitor inside microdevices for microbial toxin and mammalian cell cytotoxicity analyses. Lab on A Chip, 2018, 18, 3578-3587.	3.1	24
34	Crosslinking Lessons From Biology: Enlisting Enzymes for Macromolecular Assembly. Journal of Adhesion, 2009, 85, 576-589.	1.8	23
35	Programmable â€œSemismartâ€•Sensor: Relevance to Monitoring Antipsychotics. Advanced Functional Materials, 2015, 25, 2156-2165.	7.8	23
36	Biofabricated film with enzymatic and redox-capacitor functionalities to harvest and store electrons. Biofabrication, 2013, 5, 015008.	3.7	22

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37	Catechol-Based Hydrogel for Chemical Information Processing. Biomimetics, 2017, 2, 11.	1.5	21
38	Electrodeposition of a magnetic and redox-active chitosan film for capturing and sensing metabolic active bacteria. Carbohydrate Polymers, 2018, 195, 505-514.	5.1	21
39	Paraquatâ€“Melanin Redox-Cycling: Evidence from Electrochemical Reverse Engineering. ACS Chemical Neuroscience, 2016, 7, 1057-1067.	1.7	20
40	Conferring biological activity to native spider silk: A biofunctionalized proteinâ€based microfiber. Biotechnology and Bioengineering, 2017, 114, 83-95.	1.7	20
41	Minimum bactericidal concentration of ciprofloxacin to Pseudomonas aeruginosa determined rapidly based on pyocyanin secretion. Sensors and Actuators B: Chemical, 2020, 312, 127936.	4.0	20
42	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. Biomacromolecules, 2008, 9, 1417-1423.	2.6	19
43	Enzymatic Writing to Soft Films: Potential to Filter, Store, and Analyze Biologically Relevant Chemical Information. Advanced Functional Materials, 2014, 24, 480-491.	7.8	17
44	Self-Assembly with Orthogonal-Imposed Stimuli To Impart Structure and Confer Magnetic Function To Electrodeposited Hydrogels. ACS Applied Materials & Interfaces, 2015, 7, 10587-10598.	4.0	16
45	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. Advanced Healthcare Materials, 2016, 5, 2595-2616.	3.9	16
46	Electrochemistry for bio-device molecular communication: The potential to characterize, analyze and actuate biological systems. Nano Communication Networks, 2017, 11, 76-89.	1.6	15
47	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. Colloids and Surfaces B: Biointerfaces, 2018, 169, 470-477.	2.5	15
48	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. Bioconjugate Chemistry, 2018, 29, 1809-1822.	1.8	14
49	A high-throughput pipeline for design and selection of peptides targeting the SARS-Cov-2 Spike protein. Scientific Reports, 2021, 11, 21768.	1.6	12
50	Electrofabricated biomaterial-based capacitor on nanoporous gold for enhanced redox amplification. Electrochimica Acta, 2019, 318, 828-836.	2.6	10
51	A Facile Two-Step Enzymatic Approach for Conjugating Proteins to Polysaccharide Chitosan at an Electrode Interface. Cellular and Molecular Bioengineering, 2017, 10, 134-142.	1.0	9
52	Rapid and Repeatable Redox Cycling of an Insoluble Dietary Antioxidant: Electrochemical Analysis. Journal of Agricultural and Food Chemistry, 2014, 62, 9760-9768.	2.4	7
53	Biofabrication Based on the Enzyme-Catalyzed Coupling and Crosslinking of Pre-Formed Biopolymers. ACS Symposium Series, 2010, , 35-44.	0.5	5
54	Electrochemical reverse engineering to probe for drug-phenol redox interactions. Electrochimica Acta, 2019, 295, 742-750.	2.6	4

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55	Transglutaminase-mediated assembly of multi-enzyme pathway onto TMV brush surfaces for synthesis of bacterial autoinducer-2. Biofabrication, 2020, 12, 045017.	3.7	4
56	Multiplexed assessment of engineered bacterial constructs for intracellular Î²-galactosidase expression by redox amplification on catechol-chitosan modified nanoporous gold. Mikrochimica Acta, 2022, 189, 4.	2.5	3