

Yi Liu

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

2,106
citations

186265

28
h-index

233421

45
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58
all docs

58
docs citations

58
times ranked

1990
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface Functionalization of Titanium with Chitosan/Gelatin via Electrophoretic Deposition: Characterization and Cell Behavior. <i>Biomacromolecules</i> , 2010, 11, 1254-1260.	5.4	138
2	Electroaddressing of Cell Populations by Co e^{-} Deposition with Calcium Alginate Hydrogels. <i>Advanced Functional Materials</i> , 2009, 19, 2074-2080.	14.9	115
3	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. <i>Advanced Functional Materials</i> , 2010, 20, 2683-2694.	14.9	109
4	Biofabrication to build the biology e^{-} device interface. <i>Biofabrication</i> , 2010, 2, 022002.	7.1	94
5	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. <i>Polymers</i> , 2015, 7, 1-46.	4.5	87
6	Coupling Electrodeposition with Layer e^{-} by e^{-} Layer Assembly to Address Proteins within Microfluidic Channels. <i>Advanced Materials</i> , 2011, 23, 5817-5821.	21.0	83
7	Redox-capacitor to connect electrochemistry to redox-biology. <i>Analyst, The</i> , 2014, 139, 32-43.	3.5	71
8	Context-Dependent Redox Properties of Natural Phenolic Materials. <i>Biomacromolecules</i> , 2014, 15, 1653-1662.	5.4	71
9	Redox Capacitor to Establish Bio e^{-} Device Redox e^{-} Connectivity. <i>Advanced Functional Materials</i> , 2012, 22, 1409-1416.	14.9	65
10	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. <i>Soft Matter</i> , 2013, 9, 2703.	2.7	59
11	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. <i>Nature Nanotechnology</i> , 2021, 16, 688-697.	31.5	56
12	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuli e^{-} Responsive Materials. <i>Advanced Functional Materials</i> , 2012, 22, 3004-3012.	14.9	54
13	Redox-Cycling and H ₂ O ₂ Generation by Fabricated Catecholic Films in the Absence of Enzymes. <i>Biomacromolecules</i> , 2011, 12, 880-888.	5.4	53
14	Biomimetic fabrication of information-rich phenolic-chitosan films. <i>Soft Matter</i> , 2011, 7, 9601.	2.7	51
15	Chitosan-Coated Wires: Conferring Electrical Properties to Chitosan Fibers. <i>Biomacromolecules</i> , 2009, 10, 858-864.	5.4	46
16	Tyrosinase-mediated grafting and crosslinking of natural phenols confers functional properties to chitosan. <i>Biochemical Engineering Journal</i> , 2014, 89, 21-27.	3.6	46
17	Reverse Engineering To Suggest Biologically Relevant Redox Activities of Phenolic Materials. <i>ACS Chemical Biology</i> , 2013, 8, 716-724.	3.4	44
18	Using a Redox Modality to Connect Synthetic Biology to Electronics: Hydrogel e^{-} Based Chemo e^{-} Electro Signal Transduction for Molecular Communication. <i>Advanced Healthcare Materials</i> , 2017, 6, 1600908.	7.6	44

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19	Reagentless Protein Assembly Triggered by Localized Electrical Signals. <i>Advanced Materials</i> , 2009, 21, 984-988.	21.0	43
20	Reversible Electroaddressing of Self-Assembling Amino Acid Conjugates. <i>Advanced Functional Materials</i> , 2011, 21, 1575-1580.	14.9	42
21	Connecting Biology to Electronics: Molecular Communication via Redox Modality. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700789.	7.6	40
22	In-Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuli-Responsive Polysaccharides. <i>Advanced Functional Materials</i> , 2010, 20, 1645-1652.	14.9	36
23	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. <i>Biomacromolecules</i> , 2018, 19, 3502-3514.	5.4	34
24	Information processing through a bio-based redox capacitor: Signatures for redox-cycling. <i>Bioelectrochemistry</i> , 2014, 98, 94-102.	4.6	33
25	Electrochemical reverse engineering: A systems-level tool to probe the redox-based molecular communication of biology. <i>Free Radical Biology and Medicine</i> , 2017, 105, 110-131.	2.9	32
26	Orthogonal Enzymatic Reactions for the Assembly of Proteins at Electrode Addresses. <i>Langmuir</i> , 2009, 25, 338-344.	3.5	31
27	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. <i>Biomacromolecules</i> , 2016, 17, 558-563.	5.4	31
28	Redox-Based Synthetic Biology Enables Electrochemical Detection of the Herbicides Dicamba and Roundup via Rewired <i>Escherichia coli</i> . <i>ACS Sensors</i> , 2019, 4, 1180-1184.	7.8	29
29	Chitosan Biotinylation and Electrodeposition for Selective Protein Assembly. <i>Macromolecular Bioscience</i> , 2008, 8, 451-457.	4.1	28
30	Electroaddressing Agarose Using Fmoc-Phenylalanine as a Temporary Scaffold. <i>Langmuir</i> , 2011, 27, 7380-7384.	3.5	28
31	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. <i>Analytical Chemistry</i> , 2016, 88, 7213-7221.	6.5	27
32	Functionalizing Soft Matter for Molecular Communication. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 320-328.	5.2	24
33	Selective assembly and functionalization of miniaturized redox capacitor inside microdevices for microbial toxin and mammalian cell cytotoxicity analyses. <i>Lab on A Chip</i> , 2018, 18, 3578-3587.	6.0	24
34	Crosslinking Lessons From Biology: Enlisting Enzymes for Macromolecular Assembly. <i>Journal of Adhesion</i> , 2009, 85, 576-589.	3.0	23
35	Programmable "Semismart" Sensor: Relevance to Monitoring Antipsychotics. <i>Advanced Functional Materials</i> , 2015, 25, 2156-2165.	14.9	23
36	Biofabricated film with enzymatic and redox-capacitor functionalities to harvest and store electrons. <i>Biofabrication</i> , 2013, 5, 015008.	7.1	22

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37	Catechol-Based Hydrogel for Chemical Information Processing. <i>Biomimetics</i> , 2017, 2, 11.	3.3	21
38	Electrodeposition of a magnetic and redox-active chitosan film for capturing and sensing metabolic active bacteria. <i>Carbohydrate Polymers</i> , 2018, 195, 505-514.	10.2	21
39	Paraquatâ€“Melanin Redox-Cycling: Evidence from Electrochemical Reverse Engineering. <i>ACS Chemical Neuroscience</i> , 2016, 7, 1057-1067.	3.5	20
40	Conferring biological activity to native spider silk: A biofunctionalized proteinâ€“based microfiber. <i>Biotechnology and Bioengineering</i> , 2017, 114, 83-95.	3.3	20
41	Minimum bactericidal concentration of ciprofloxacin to <i>Pseudomonas aeruginosa</i> determined rapidly based on pyocyanin secretion. <i>Sensors and Actuators B: Chemical</i> , 2020, 312, 127936.	7.8	20
42	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. <i>Biomacromolecules</i> , 2008, 9, 1417-1423.	5.4	19
43	Enzymatic Writing to Soft Films: Potential to Filter, Store, and Analyze Biologically Relevant Chemical Information. <i>Advanced Functional Materials</i> , 2014, 24, 480-491.	14.9	17
44	Self-Assembly with Orthogonal-Imposed Stimuli To Impart Structure and Confer Magnetic Function To Electrodeposited Hydrogels. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 10587-10598.	8.0	16
45	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. <i>Advanced Healthcare Materials</i> , 2016, 5, 2595-2616.	7.6	16
46	Electrochemistry for bio-device molecular communication: The potential to characterize, analyze and actuate biological systems. <i>Nano Communication Networks</i> , 2017, 11, 76-89.	2.9	15
47	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 169, 470-477.	5.0	15
48	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. <i>Bioconjugate Chemistry</i> , 2018, 29, 1809-1822.	3.6	14
49	A high-throughput pipeline for design and selection of peptides targeting the SARS-Cov-2 Spike protein. <i>Scientific Reports</i> , 2021, 11, 21768.	3.3	12
50	Electrofabricated biomaterial-based capacitor on nanoporous gold for enhanced redox amplification. <i>Electrochimica Acta</i> , 2019, 318, 828-836.	5.2	10
51	A Facile Two-Step Enzymatic Approach for Conjugating Proteins to Polysaccharide Chitosan at an Electrode Interface. <i>Cellular and Molecular Bioengineering</i> , 2017, 10, 134-142.	2.1	9
52	Rapid and Repeatable Redox Cycling of an Insoluble Dietary Antioxidant: Electrochemical Analysis. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 9760-9768.	5.2	7
53	Biofabrication Based on the Enzyme-Catalyzed Coupling and Crosslinking of Pre-Formed Biopolymers. <i>ACS Symposium Series</i> , 2010, , 35-44.	0.5	5
54	Electrochemical reverse engineering to probe for drug-phenol redox interactions. <i>Electrochimica Acta</i> , 2019, 295, 742-750.	5.2	4

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55	Transglutaminase-mediated assembly of multi-enzyme pathway onto TMV brush surfaces for synthesis of bacterial autoinducer-2. <i>Biofabrication</i> , 2020, 12, 045017.	7.1	4
56	Multiplexed assessment of engineered bacterial constructs for intracellular β -galactosidase expression by redox amplification on catechol-chitosan modified nanoporous gold. <i>Mikrochimica Acta</i> , 2022, 189, 4.	5.0	3