Gregory F Payne

List of Publications by Year in descending order

198 papers	9,101 citations	38742 50 h-index	56724 83 g-index
202 all docs	202 docs citations	202 times ranked	7875 citing authors

#	Article	IF	Citations
1	Biofabrication with Chitosan. Biomacromolecules, 2005, 6, 2881-2894.	5.4	667
2	Enzyme-catalyzed gel formation of gelatin and chitosan: potential for in situ applications. Biomaterials, 2003, 24, 2831-2841.	11.4	324
3	Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface. Langmuir, 2002, 18, 8620-8625.	3.5	283
4	Probing Energy and Electron Transfer Mechanisms in Fluorescence Quenching of Biomass Carbon Quantum Dots. ACS Applied Materials & Interfaces, 2016, 8, 17478-17488.	8.0	223
5	Chitosan Based Water-Resistant Adhesive. Analogy to Mussel Glue. Biomacromolecules, 2000, 1, 252-258.	5.4	198
6	Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface. Langmuir, 2003, 19, 4058-4062.	3.5	184
7	Enzymatic grafting of a natural product onto chitosan to confer water solubility under basic conditions. , 1999, 63, 154-165.		177
8	Patterned Assembly of Genetically Modified Viral Nanotemplates via Nucleic Acid Hybridization. Nano Letters, 2005, 5, 1931-1936.	9.1	156
9	In situ quantitative visualization and characterization of chitosan electrodeposition with paired sidewall electrodes. Soft Matter, 2010, 6, 3177.	2.7	150
10	Role of polydopamineâ€™s redox-activity on its pro-oxidant, radical-scavenging, and antimicrobial activities. Acta Biomaterialia, 2019, 88, 181-196.	8.3	137
11	Electronic control of gene expression and cell behaviour in Escherichia coli through redox signalling. Nature Communications, 2017, 8, 14030.	12.8	120
12	Enzymatic grafting of hexyloxyphenol onto chitosan to alter surface and rheological properties. Biotechnology and Bioengineering, 2000, 70, 564-573.	3.3	118
13	Tyrosinase reaction/chitosan adsorption for removing phenols from wastewater. Biotechnology Progress, 1992, 8, 179-186.	2.6	117
14	Electroaddressing of Cell Populations by Coâ€Ðeposition with Calcium Alginate Hydrogels. Advanced Functional Materials, 2009, 19, 2074-2080.	14.9	115
15	Chitosan: a soft interconnect for hierarchical assembly of nano-scale components. Soft Matter, 2007, 3, 521.	2.7	113
16	Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template. Langmuir, 2003, 19, 519-524.	3.5	111
17	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. Advanced Functional Materials, 2010, 20, 2683-2694.	14.9	109
18	Biofabrication: using biological materials and biocatalysts to construct nanostructured assemblies. Trends in Biotechnology, 2004, 22, 593-599.	9.3	108

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19	Mechanism of anodic electrodeposition of calcium alginate. Soft Matter, 2011, 7, 5677.	2.7	103
20	Biofabrication to build the biologyâ€“device interface. Biofabrication, 2010, 2, 022002.	7.1	94
21	Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles. Langmuir, 2005, 21, 3641-3646.	3.5	90
22	pH-Responsive Self-Assembly of Polysaccharide through a Rugged Energy Landscape. Journal of the American Chemical Society, 2015, 137, 13024-13030.	13.7	89
23	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. Polymers, 2015, 7, 1-46.	4.5	87
24	Amplified and in Situ Detection of Redox-Active Metabolite Using a Biobased Redox Capacitor. Analytical Chemistry, 2013, 85, 2102-2108.	6.5	86
25	Coupling Electrodeposition with Layerâ€byâ€Layer Assembly to Address Proteins within Microfluidic Channels. Advanced Materials, 2011, 23, 5817-5821.	21.0	83
26	Electrodeposition of a Biopolymeric Hydrogel: Potential for One-Step Protein Electroaddressing. Biomacromolecules, 2012, 13, 1181-1189.	5.4	82
27	Enzyme Conjugation to the Polysaccharide Chitosan:â€‰ Smart Biocatalysts and Biocatalytic Hydrogels. Bioconjugate Chemistry, 2001, 12, 301-306.	3.6	79
28	Biofabrication: programmable assembly of polysaccharide hydrogels in microfluidics as biocompatible scaffolds. Journal of Materials Chemistry, 2012, 22, 7659.	6.7	75
29	Combinatorial Screening for Enzyme-Mediated Coupling. Tyrosinase-Catalyzed Coupling To Create Proteinâ^Chitosan Conjugates. Biomacromolecules, 2001, 2, 456-462.	5.4	74
30	Enzymatic Methods for in Situ Cell Entrapment and Cell Release. Biomacromolecules, 2003, 4, 1558-1563.	5.4	73
31	Bio-inspired redox-cycling antimicrobial film for sustained generation of reactive oxygen species. Biomaterials, 2018, 162, 109-122.	11.4	72
32	Redox-capacitor to connect electrochemistry to redox-biology. Analyst, The, 2014, 139, 32-43.	3.5	71
33	Context-Dependent Redox Properties of Natural Phenolic Materials. Biomacromolecules, 2014, 15, 1653-1662.	5.4	71
34	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. Lab on A Chip, 2006, 6, 1315.	6.0	68
35	Biocompatible multi-address 3D cell assembly in microfluidic devices using spatially programmable gel formation. Lab on A Chip, 2011, 11, 2316.	6.0	68
36	Reverse Engineering Applied to Red Human Hair Pheomelanin Reveals Redox-Buffering as a Pro-Oxidant Mechanism. Scientific Reports, 2015, 5, 18447.	3.3	67

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37	Redox-Channeling Polydopamine-Ferrocene (PDA-Fc) Coating To Confer Context-Dependent and Photothermal Antimicrobial Activities. ACS Applied Materials & Interfaces, 2020, 12, 8915-8928.	8.0	67
38	Coding for hydrogel organization through signal guided self-assembly. Soft Matter, 2014, 10, 465-469.	2.7	66
39	Redox Capacitor to Establish Bioâ€Device Redoxâ€Connectivity. Advanced Functional Materials, 2012, 22, 1409-1416.	14.9	65
40	Autonomous bacterial localization and gene expression based on nearby cell receptor density. Molecular Systems Biology, 2013, 9, 636.	7.2	65
41	Utilizing Renewable Resources To Create Functional Polymers:Â Chitosan-Based Associative Thickener. Environmental Science & Technology, 2002, 36, 3446-3454.	10.0	64
42	Spectroelectrochemical Reverse Engineering DemonstratesThat Melaninâ€™s Redox and Radical Scavenging Activities Are Linked. Biomacromolecules, 2017, 18, 4084-4098.	5.4	63
43	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. Advanced Functional Materials, 2012, 22, 519-528.	14.9	61
44	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. Soft Matter, 2013, 9, 2703.	2.7	59
45	Programmable Electrofabrication of Porous Janus Films with Tunable Janus Balance for Anisotropic Cell Guidance and Tissue Regeneration. Advanced Functional Materials, 2019, 29, 1900065.	14.9	58
46	Tyrosinase reaction/chitosan adsorption for selectively removing phenols from aqueous mixtures. Biotechnology and Bioengineering, 1992, 40, 1011-1018.	3.3	56
47	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. Nature Nanotechnology, 2021, 16, 688-697.	31.5	56
48	Enzymatic modification of the synthetic polymer polyhydroxystyrene. Enzyme and Microbial Technology, 1999, 25, 660-668.	3.2	55
49	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuliâ€Responsive Materials. Advanced Functional Materials, 2012, 22, 3004-3012.	14.9	54
50	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. Lab on A Chip, 2008, 8, 420.	6.0	53
51	Redox-Cycling and H₂O₂ Generation by Fabricated Catecholic Films in the Absence of Enzymes. Biomacromolecules, 2011, 12, 880-888.	5.4	53
52	Electronic modulation of biochemical signal generation. Nature Nanotechnology, 2014, 9, 605-610.	31.5	52
53	Biomimetic fabrication of information-rich phenolic-chitosan films. Soft Matter, 2011, 7, 9601.	2.7	51
54	Tyrosine-based â€œActivatable Pro-Tagâ€: Enzyme-catalyzed protein capture and release. Biotechnology and Bioengineering, 2006, 93, 1207-1215.	3.3	50

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55	pH- and Voltage-Responsive Chitosan Hydrogel through Covalent Cross-Linking with Catechol. Journal of Physical Chemistry B, 2012, 116, 1579-1585.	2.6	50
56	Biospecific Selfâ€Assembly of a Nanoparticle Coating for Targeted and Stimuliâ€Responsive Drug Delivery. Advanced Functional Materials, 2015, 25, 1404-1417.	14.9	50
57	Electro-molecular Assembly: Electrical Writing of Information into an Erasable Polysaccharide Medium. ACS Applied Materials & Interfaces, 2016, 8, 19780-19786.	8.0	49
58	Quorum Sensing Communication: Molecularly Connecting Cells, Their Neighbors, and Even Devices. Annual Review of Chemical and Biomolecular Engineering, 2020, 11, 447-468.	6.8	48
59	Compartmentalized Multilayer Hydrogel Formation Using a Stimulus-Responsive Self-Assembling Polysaccharide. ACS Applied Materials & Interfaces, 2014, 6, 2948-2957.	8.0	47
60	A platform of genetically engineered bacteria as vehicles for localized delivery of therapeutics: Toward applications for Crohn's disease. Bioengineering and Translational Medicine, 2018, 3, 209-221.	7.1	47
61	Signal-Directed Sequential Assembly of Biomolecules on Patterned Surfaces. Langmuir, 2005, 21, 2104-2107.	3.5	46
62	Chitosan-Coated Wires: Conferring Electrical Properties to Chitosan Fibers. Biomacromolecules, 2009, 10, 858-864.	5.4	46
63	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. Biomaterials, 2012, 33, 5136-5143.	11.4	46
64	Tyrosinase-mediated grafting and crosslinking of natural phenols confers functional properties to chitosan. Biochemical Engineering Journal, 2014, 89, 21-27.	3.6	46
65	Reversible Programing of Soft Matter with Reconfigurable Mechanical Properties. Advanced Functional Materials, 2017, 27, 1605665.	14.9	46
66	Redox Probing for Chemical Information of Oxidative Stress. Analytical Chemistry, 2017, 89, 1583-1592.	6.5	46
67	Electrical Programming of Soft Matter: Using Temporally Varying Electrical Inputs To Spatially Control Self Assembly. Biomacromolecules, 2018, 19, 364-373.	5.4	46
68	A redox-based electrogenetic CRISPR system to connect with and control biological information networks. Nature Communications, 2020, 11, 2427.	12.8	46
69	Melanin Produced by the Fast-Growing Marine Bacterium Vibrio natriegens through Heterologous Biosynthesis: Characterization and Application. Applied and Environmental Microbiology, 2020, 86, .	3.1	45
70	Reverse Engineering To Suggest Biologically Relevant Redox Activities of Phenolic Materials. ACS Chemical Biology, 2013, 8, 716-724.	3.4	44
71	Electrochemical Measurement of the Î²-Galactosidase Reporter from Live Cells: A Comparison to the Miller Assay. ACS Synthetic Biology, 2016, 5, 28-35.	3.8	44
72	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.	7.6	44

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73	Reagentless Protein Assembly Triggered by Localized Electrical Signals. Advanced Materials, 2009, 21, 984-988.	21.0	43
74	Electrobiofabrication: electrically based fabrication with biologically derived materials. Biofabrication, 2019, 11, 032002.	7.1	43
75	Reversible Electroaddressing of Selfâ€assembling Aminoâ€Acid Conjugates. Advanced Functional Materials, 2011, 21, 1575-1580.	14.9	42
76	Characterization of the cathodic electrodeposition of semicrystalline chitosan hydrogel. Materials Letters, 2012, 87, 97-100.	2.6	41
77	Connecting Biology to Electronics: Molecular Communication via Redox Modality. Advanced Healthcare Materials, 2017, 6, 1700789.	7.6	40
78	Optically clear alginate hydrogels for spatially controlled cell entrapment and culture at microfluidic electrode surfaces. Lab on A Chip, 2013, 13, 1854.	6.0	39
79	Encapsulated fusion protein confers â€œsense and respondâ€•activity to chitosanâ€“alginate capsules to manipulate bacterial quorum sensing. Biotechnology and Bioengineering, 2013, 110, 552-562.	3.3	37
80	Redox Is a Global Biodevice Information Processing Modality. Proceedings of the IEEE, 2019, 107, 1402-1424.	21.3	37
81	Inâ€Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuliâ€Responsive Polysaccharides. Advanced Functional Materials, 2010, 20, 1645-1652.	14.9	36
82	Redox cycling-based amplifying electrochemical sensor for in situ clozapine antipsychotic treatment monitoring. Electrochimica Acta, 2014, 130, 497-503.	5.2	36
83	Reverse Engineering To Characterize Redox Properties: Revealing Melaninâ€™s Redox Activity through Mediated Electrochemical Probing. Chemistry of Materials, 2018, 30, 5814-5826.	6.7	36
84	Biological nanofactories facilitate spatially selective capture and manipulation of quorum sensing bacteria in a bioMEMS device. Lab on A Chip, 2010, 10, 1128.	6.0	35
85	Toward Understanding the Environmental Control of Hydrogel Film Properties: How Salt Modulates the Flexibility of Chitosan Chains. Macromolecules, 2017, 50, 5946-5952.	4.8	35
86	Distal modulation of bacterial cellâ€“cell signalling in a synthetic ecosystem using partitioned microfluidics. Lab on A Chip, 2015, 15, 1842-1851.	6.0	34
87	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. Biomacromolecules, 2018, 19, 3502-3514.	5.4	34
88	Information processing through a bio-based redox capacitor: Signatures for redox-cycling. Bioelectrochemistry, 2014, 98, 94-102.	4.6	33
89	Nano-guided cell networks as conveyors of molecular communication. Nature Communications, 2015, 6, 8500.	12.8	33
90	Reliable clinical serum analysis with reusable electrochemical sensor: Toward point-of-care measurement of the antipsychotic medication clozapine. Biosensors and Bioelectronics, 2017, 95, 55-59.	10.1	33

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91	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion proâ€tag. Biotechnology and Bioengineering, 2008, 99, 499-507.	3.3	32
92	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.	2.9	32
93	Orthogonal Enzymatic Reactions for the Assembly of Proteins at Electrode Addresses. Langmuir, 2009, 25, 338-344.	3.5	31
94	Electrochemical Study of the Catechol-Modified Chitosan System for Clozapine Treatment Monitoring. Langmuir, 2014, 30, 14686-14693.	3.5	31
95	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. Biomacromolecules, 2016, 17, 558-563.	5.4	31
96	Engineering bacterial motility towards hydrogen-peroxide. PLoS ONE, 2018, 13, e0196999.	2.5	31
97	Biofabrication of antibodies and antigens via IgGâ€binding domain engineered with activatable pentatyrosine proâ€tag. Biotechnology and Bioengineering, 2009, 103, 231-240.	3.3	30
98	Glucose Oxidase-Mediated Gelation: A Simple Test To Detect Glucose in Food Products. Journal of Agricultural and Food Chemistry, 2012, 60, 8963-8967.	5.2	30
99	Electrodeposition of a biopolymeric hydrogel in track-etched micropores. Soft Matter, 2013, 9, 2131.	2.7	30
100	Accessing biology's toolbox for the mesoscale biofabrication of soft matter. Soft Matter, 2013, 9, 6019.	2.7	30
101	Electrofabrication of functional materials: Chloramine-based antimicrobial film for infectious wound treatment. Acta Biomaterialia, 2018, 73, 190-203.	8.3	30
102	Redox Electrochemistry to Interrogate and Control Biomolecular Communication. IScience, 2020, 23, 101545.	4.1	30
103	Enzymatic coupling of phenol vapors onto chitosan. Biotechnology and Bioengineering, 2001, 76, 325-332.	3.3	29
104	Redox-Based Synthetic Biology Enables Electrochemical Detection of the Herbicides Dicamba and Roundup via Rewired Escherichia coli. ACS Sensors, 2019, 4, 1180-1184.	7.8	29
105	Intramolecular versus Intermolecular Hydrogen Bonding in the Adsorption of Aromatic Alcohols onto an Acrylic Ester Sorbent. Journal of Physical Chemistry B, 2000, 104, 4735-4744.	2.6	28
106	Electroaddressing Agarose Using Fmoc-Phenylalanine as a Temporary Scaffold. Langmuir, 2011, 27, 7380-7384.	3.5	28
107	Biopolymer-based materials: the nanoscale components and their hierarchical assembly. Current Opinion in Chemical Biology, 2007, 11, 214-219.	6.1	27
108	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. Analytical Chemistry, 2016, 88, 7213-7221.	6.5	27

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109	Electrical Writing onto a Dynamically Responsive Polysaccharide Medium: Patterning Structure and Function into a Reconfigurable Medium. Advanced Functional Materials, 2018, 28, 1803139.	14.9	27
110	Catechol-Based Capacitor for Redox-Linked Bioelectronics. ACS Applied Electronic Materials, 2019, 1, 1337-1347.	4.3	26
111	Improved production of heterologous protein from Streptomyces lividans. Applied Microbiology and Biotechnology, 1990, 33, 395-400.	3.6	25
112	Hierarchical patterning via dynamic sacrificial printing of stimuli-responsive hydrogels. Biofabrication, 2020, 12, 035007.	7.1	25
113	Functionalizing Soft Matter for Molecular Communication. ACS Biomaterials Science and Engineering, 2015, 1, 320-328.	5.2	24
114	Electrical signals triggered controllable formation of calcium-alginate film for wound treatment. Journal of Materials Science: Materials in Medicine, 2017, 28, 146.	3.6	24
115	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.	6.0	24
116	Hydrogel Patterning with Catechol Enables Networked Electron Flow. Advanced Functional Materials, 2021, 31, 2007709.	14.9	24
117	Crosslinking Lessons From Biology: Enlisting Enzymes for Macromolecular Assembly. Journal of Adhesion, 2009, 85, 576-589.	3.0	23
118	Biofabrication with Biopolymers and Enzymes: Potential for Constructing Scaffolds from Soft Matter. International Journal of Artificial Organs, 2011, 34, 215-224.	1.4	23
119	Programmable â€œSemismartâ€•Sensor: Relevance to Monitoring Antipsychotics. Advanced Functional Materials, 2015, 25, 2156-2165.	14.9	23
120	Chip modularity enables molecular information access from organ-on-chip devices with quality control. Sensors and Actuators B: Chemical, 2019, 295, 30-39.	7.8	23
121	A Coculture Based Tyrosine-Tyrosinase Electrochemical Gene Circuit for Connecting Cellular Communication with Electronic Networks. ACS Synthetic Biology, 2020, 9, 1117-1128.	3.8	23
122	Biofabricated film with enzymatic and redox-capacitor functionalities to harvest and store electrons. Biofabrication, 2013, 5, 015008.	7.1	22
123	Catechol-Based Hydrogel for Chemical Information Processing. Biomimetics, 2017, 2, 11.	3.3	21
124	Electrodeposition of a magnetic and redox-active chitosan film for capturing and sensing metabolic active bacteria. Carbohydrate Polymers, 2018, 195, 505-514.	10.2	21
125	Title is missing!. Journal of Polymers and the Environment, 2002, 10, 77-84.	5.0	20
126	Paraquatâ€“Melanin Redox-Cycling: Evidence from Electrochemical Reverse Engineering. ACS Chemical Neuroscience, 2016, 7, 1057-1067.	3.5	20

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127	Conferring biological activity to native spider silk: A biofunctionalized proteinâ€based microfiber. Biotechnology and Bioengineering, 2017, 114, 83-95.	3.3	20
128	Redox Activities of Melanins Investigated by Electrochemical Reverse Engineering: Implications for their Roles in Oxidative Stress. Journal of Investigative Dermatology, 2020, 140, 537-543.	0.7	20
129	Towards areaâ€based in vitro metabolic engineering: Assembly of Pfs enzyme onto patterned microfabricated chips. Biotechnology Progress, 2008, 24, 1042-1051.	2.6	19
130	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. Biomacromolecules, 2008, 9, 1417-1423.	5.4	19
131	Exploring pH-Responsive, Switchable Crosslinking Mechanisms for Programming Reconfigurable Hydrogels Based on Aminopolysaccharides. Chemistry of Materials, 2018, 30, 8597-8605.	6.7	19
132	Mediated electrochemistry for redox-based biological targeting: entangling sensing and actuation for maximizing information transfer. Current Opinion in Biotechnology, 2021, 71, 137-144.	6.6	19
133	Toward scalable fabrication of electrochemical paper sensor without surface functionalization. Npj Flexible Electronics, 2022, 6, .	10.7	18
134	Reversible Vesicle Restraint in Response to Spatiotemporally Controlled Electrical Signals:â€‰ A Bridge between Electrical and Chemical Signaling Modes. Langmuir, 2007, 23, 286-291.	3.5	17
135	Enzymatic Writing to Soft Films: Potential to Filter, Store, and Analyze Biologically Relevant Chemical Information. Advanced Functional Materials, 2014, 24, 480-491.	14.9	17
136	An Electrochemical Micro-System for Clozapine Antipsychotic Treatment Monitoring. Electrochimica Acta, 2015, 163, 260-270.	5.2	17
137	Modular construction of multi-subunit protein complexes using engineered tags and microbial transglutaminase. Metabolic Engineering, 2016, 38, 1-9.	7.0	17
138	Signal processing approach to probe chemical space for discriminating redox signatures. Biosensors and Bioelectronics, 2018, 112, 127-135.	10.1	17
139	Mediated Electrochemistry to Mimic Biology's Oxidative Assembly of Functional Matrices. Advanced Functional Materials, 2020, 30, 2001776.	14.9	17
140	Self-Assembly with Orthogonal-Imposed Stimuli To Impart Structure and Confer Magnetic Function To Electrodeposited Hydrogels. ACS Applied Materials & Interfaces, 2015, 7, 10587-10598.	8.0	16
141	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. Advanced Healthcare Materials, 2016, 5, 2595-2616.	7.6	16
142	Controlling localization of Escherichia coli populations using a twoâ€part synthetic motility circuit: An accelerator and brake. Biotechnology and Bioengineering, 2017, 114, 2883-2895.	3.3	16
143	Electrochemistry for bio-device molecular communication: The potential to characterize, analyze and actuate biological systems. Nano Communication Networks, 2017, 11, 76-89.	2.9	15
144	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. Colloids and Surfaces B: Biointerfaces, 2018, 169, 470-477.	5.0	15

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145	Validation of oxidative stress assay for schizophrenia. Schizophrenia Research, 2019, 212, 126-133.	2.0	15
146	Electrical cuing of chitosan's mesoscale organization. Reactive and Functional Polymers, 2020, 148, 104492.	4.1	15
147	Electro-assembly of a dynamically adaptive molten fibril state for collagen. Science Advances, 2022, 8, eabl7506.	10.3	15
148	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. Bioconjugate Chemistry, 2018, 29, 1809-1822.	3.6	14
149	Coupling Self-Assembly Mechanisms to Fabricate Molecularly and Electrically Responsive Films. Biomacromolecules, 2019, 20, 969-978.	5.4	14
150	Catecholâ€Based Molecular Memory Film for Redox Linked Bioelectronics. Advanced Electronic Materials, 2020, 6, 2000452.	5.1	14
151	Interactive Materials for Bidirectional Redoxâ€Based Communication. Advanced Materials, 2021, 33, e2007758.	21.0	14
152	Association of acute psychosocial stress with oxidative stress: Evidence from serum analysis. Redox Biology, 2021, 47, 102138.	9.0	14
153	Integrated biofabrication for electroâ€addressed inâ€film bioprocessing. Biotechnology Journal, 2012, 7, 428-439.	3.5	13
154	Biofabricated Nanoparticle Coating for Liverâ€Cell Targeting. Advanced Healthcare Materials, 2015, 4, 1972-1981.	7.6	13
155	Pro- and Anti-oxidant Properties of Redox-Active Catechol-Chitosan Films. Frontiers in Chemistry, 2019, 7, 541.	3.6	13
156	Mediated Electrochemical Probing: A Systems-Level Tool for Redox Biology. ACS Chemical Biology, 2021, 16, 1099-1110.	3.4	13
157	Design optimization for bioMEMS studies of enzyme-controlled metabolic pathways. Biomedical Microdevices, 2008, 10, 899-908.	2.8	12
158	Vesicle capture on patterned surfaces coated with amphiphilic biopolymers. Soft Matter, 2011, 7, 1219-1226.	2.7	12
159	Incorporating LsrK Alâ€2 quorum quenching capability in a functionalized biopolymer capsule. Biotechnology and Bioengineering, 2018, 115, 278-289.	3.3	12
160	Reversibly Reconfigurable Cross-Linking Induces Fusion of Separate Chitosan Hydrogel Films. ACS Applied Bio Materials, 2018, 1, 1695-1704.	4.6	12
161	The Analgesic Acetaminophen and the Antipsychotic Clozapine Can Each Redox-Cycle with Melanin. ACS Chemical Neuroscience, 2017, 8, 2766-2777.	3.5	11
162	Electronic signals are electrogenetically relayed to control cell growth and co-culture composition. Metabolic Engineering Communications, 2021, 13, e00176.	3.6	11

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163	Polyelectrolyte in Electric Field: Disparate Conformational Behavior along an Aminopolysaccharide Chain. ACS Omega, 2020, 5, 12016-12026.	3.5	11
164	Multidimensional Mapping Method Using an Arrayed Sensing System for Cross-Reactivity Screening. PLoS ONE, 2015, 10, e0116310.	2.5	10
165	A â€˜bioproduction breadboardâ€™: programming, assembling, and actuating cellular networks. Current Opinion in Biotechnology, 2015, 36, 154-160.	6.6	10
166	Tethered molecular redox capacitors for nanoconfinement-assisted electrochemical signal amplification. Nanoscale, 2020, 12, 3668-3676.	5.6	10
167	A Facile Two-Step Enzymatic Approach for Conjugating Proteins to Polysaccharide Chitosan at an Electrode Interface. Cellular and Molecular Bioengineering, 2017, 10, 134-142.	2.1	9
168	The interplay of electrode- and bio-materials in a redox-cycling-based clozapine sensor. Electrochemistry Communications, 2017, 79, 33-36.	4.7	9
169	Electrogenetic Signal Transmission and Propagation in Coculture to Guide Production of a Small Molecule, Tyrosine. ACS Synthetic Biology, 2022, 11, 877-887.	3.8	9
170	Constructing â€œquantized quorumsâ€•to guide emergent phenotypes through quorum quenching capsules. Biotechnology and Bioengineering, 2017, 114, 407-415.	3.3	8
171	Modification and Assembly of a Versatile Lactonase for Bacterial Quorum Quenching. Molecules, 2018, 23, 341.	3.8	8
172	Simple, rapidly electroassembled thiolated PEGâ€based sensor interfaces enable rapid interrogation of antibody titer and glycosylation. Biotechnology and Bioengineering, 2021, 118, 2744-2758.	3.3	8
173	Rapid and Repeatable Redox Cycling of an Insoluble Dietary Antioxidant: Electrochemical Analysis. Journal of Agricultural and Food Chemistry, 2014, 62, 9760-9768.	5.2	7
174	Molecular processes in an electrochemical clozapine sensor. Biointerphases, 2017, 12, 02B401.	1.6	7
175	Focusing quorum sensing signalling by nanoâ€magnetic assembly. Environmental Microbiology, 2018, 20, 2585-2597.	3.8	7
176	Catechol Patterned Film Enables the Enzymatic Detection of Glucose with Cell Phone Imaging. ACS Sustainable Chemistry and Engineering, 2021, 9, 14836-14845.	6.7	7
177	System-Level Network Analysis of a Catechol Component for Redox Bioelectronics. ACS Applied Electronic Materials, 2022, 4, 2490-2501.	4.3	7
178	A simple and reusable bilayer membrane-based microfluidic device for the study of gradient-mediated bacterial behaviors. Biomicrofluidics, 2017, 11, 044114.	2.4	6
179	The Binding Effect of Proteins on Medications and Its Impact on Electrochemical Sensing: Antipsychotic Clozapine as a Case Study. Pharmaceuticals, 2017, 10, 69.	3.8	6
180	An immune magnetic nano-assembly for specifically amplifying intercellular quorum sensing signals. Colloids and Surfaces B: Biointerfaces, 2018, 172, 197-206.	5.0	6

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181	Grafting Renewable Chemicals to Functionalize Chitosan. ACS Symposium Series, 2002, , 231-242.	0.5	5
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