

# Gregory F Payne

## List of Publications by Year in descending order

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198  
papers

9,101  
citations

38660

50  
h-index

56606

83  
g-index

202  
all docs

202  
docs citations

202  
times ranked

7875  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biofabrication with Chitosan. <i>Biomacromolecules</i> , 2005, 6, 2881-2894.	2.6	667
2	Enzyme-catalyzed gel formation of gelatin and chitosan: potential for in situ applications. <i>Biomaterials</i> , 2003, 24, 2831-2841.	5.7	324
3	Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface. <i>Langmuir</i> , 2002, 18, 8620-8625.	1.6	283
4	Probing Energy and Electron Transfer Mechanisms in Fluorescence Quenching of Biomass Carbon Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 17478-17488.	4.0	223
5	Chitosan Based Water-Resistant Adhesive. Analogy to Mussel Glue. <i>Biomacromolecules</i> , 2000, 1, 252-258.	2.6	198
6	Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface. <i>Langmuir</i> , 2003, 19, 4058-4062.	1.6	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. <i>Nano Letters</i> , 2005, 5, 1931-1936.	4.5	156
9	In situ quantitative visualization and characterization of chitosan electrodeposition with paired sidewall electrodes. <i>Soft Matter</i> , 2010, 6, 3177.	1.2	150
10	Role of polydopamine's redox-activity on its pro-oxidant, radical-scavenging, and antimicrobial activities. <i>Acta Biomaterialia</i> , 2019, 88, 181-196.	4.1	137
11	Electronic control of gene expression and cell behaviour in <i>Escherichia coli</i> through redox signalling. <i>Nature Communications</i> , 2017, 8, 14030.	5.8	120
12	Enzymatic grafting of hexyloxyphenol onto chitosan to alter surface and rheological properties. <i>Biotechnology and Bioengineering</i> , 2000, 70, 564-573.	1.7	118
13	Tyrosinase reaction/chitosan adsorption for removing phenols from wastewater. <i>Biotechnology Progress</i> , 1992, 8, 179-186.	1.3	117
14	Electroaddressing of Cell Populations by Co-Deposition with Calcium Alginate Hydrogels. <i>Advanced Functional Materials</i> , 2009, 19, 2074-2080.	7.8	115
15	Chitosan: a soft interconnect for hierarchical assembly of nano-scale components. <i>Soft Matter</i> , 2007, 3, 521.	1.2	113
16	Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template. <i>Langmuir</i> , 2003, 19, 519-524.	1.6	111
17	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. <i>Advanced Functional Materials</i> , 2010, 20, 2683-2694.	7.8	109
18	Biofabrication: using biological materials and biocatalysts to construct nanostructured assemblies. <i>Trends in Biotechnology</i> , 2004, 22, 593-599.	4.9	108

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19	Mechanism of anodic electrodeposition of calcium alginate. <i>Soft Matter</i> , 2011, 7, 5677.	1.2	103
20	Biofabrication to build the biologyâ€“device interface. <i>Biofabrication</i> , 2010, 2, 022002.	3.7	94
21	Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles. <i>Langmuir</i> , 2005, 21, 3641-3646.	1.6	90
22	pH-Responsive Self-Assembly of Polysaccharide through a Rugged Energy Landscape. <i>Journal of the American Chemical Society</i> , 2015, 137, 13024-13030.	6.6	89
23	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. <i>Polymers</i> , 2015, 7, 1-46.	2.0	87
24	Amplified and in Situ Detection of Redox-Active Metabolite Using a Biobased Redox Capacitor. <i>Analytical Chemistry</i> , 2013, 85, 2102-2108.	3.2	86
25	Coupling Electrodeposition with Layerâ€“byâ€“Layer Assembly to Address Proteins within Microfluidic Channels. <i>Advanced Materials</i> , 2011, 23, 5817-5821.	11.1	83
26	Electrodeposition of a Biopolymeric Hydrogel: Potential for One-Step Protein Electroaddressing. <i>Biomacromolecules</i> , 2012, 13, 1181-1189.	2.6	82
27	Enzyme Conjugation to the Polysaccharide Chitosan:â€“ Smart Biocatalysts and Biocatalytic Hydrogels. <i>Bioconjugate Chemistry</i> , 2001, 12, 301-306.	1.8	79
28	Biofabrication: programmable assembly of polysaccharide hydrogels in microfluidics as biocompatible scaffolds. <i>Journal of Materials Chemistry</i> , 2012, 22, 7659.	6.7	75
29	Combinatorial Screening for Enzyme-Mediated Coupling. Tyrosinase-Catalyzed Coupling To Create Proteinâ€“Chitosan Conjugates. <i>Biomacromolecules</i> , 2001, 2, 456-462.	2.6	74
30	Enzymatic Methods for in Situ Cell Entrapment and Cell Release. <i>Biomacromolecules</i> , 2003, 4, 1558-1563.	2.6	73
31	Bio-inspired redox-cycling antimicrobial film for sustained generation of reactive oxygen species. <i>Biomaterials</i> , 2018, 162, 109-122.	5.7	72
32	Redox-capacitor to connect electrochemistry to redox-biology. <i>Analyst, The</i> , 2014, 139, 32-43.	1.7	71
33	Context-Dependent Redox Properties of Natural Phenolic Materials. <i>Biomacromolecules</i> , 2014, 15, 1653-1662.	2.6	71
34	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. <i>Lab on A Chip</i> , 2006, 6, 1315.	3.1	68
35	Biocompatible multi-address 3D cell assembly in microfluidic devices using spatially programmable gel formation. <i>Lab on A Chip</i> , 2011, 11, 2316.	3.1	68
36	Reverse Engineering Applied to Red Human Hair Pheomelanin Reveals Redox-Buffering as a Pro-Oxidant Mechanism. <i>Scientific Reports</i> , 2015, 5, 18447.	1.6	67

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37	Redox-Channeling Polydopamine-Ferrocene (PDA-Fc) Coating To Confer Context-Dependent and Photothermal Antimicrobial Activities. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 8915-8928.	4.0	67
38	Coding for hydrogel organization through signal guided self-assembly. <i>Soft Matter</i> , 2014, 10, 465-469.	1.2	66
39	Redox Capacitor to Establish Bio-Device Redox-Connectivity. <i>Advanced Functional Materials</i> , 2012, 22, 1409-1416.	7.8	65
40	Autonomous bacterial localization and gene expression based on nearby cell receptor density. <i>Molecular Systems Biology</i> , 2013, 9, 636.	3.2	65
41	Utilizing Renewable Resources To Create Functional Polymers: A Chitosan-Based Associative Thickener. <i>Environmental Science &amp; Technology</i> , 2002, 36, 3446-3454.	4.6	64
42	Spectroelectrochemical Reverse Engineering Demonstrates That Melanin's Redox and Radical Scavenging Activities Are Linked. <i>Biomacromolecules</i> , 2017, 18, 4084-4098.	2.6	63
43	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. <i>Advanced Functional Materials</i> , 2012, 22, 519-528.	7.8	61
44	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. <i>Soft Matter</i> , 2013, 9, 2703.	1.2	59
45	Programmable Electrofabrication of Porous Janus Films with Tunable Janus Balance for Anisotropic Cell Guidance and Tissue Regeneration. <i>Advanced Functional Materials</i> , 2019, 29, 1900065.	7.8	58
46	Tyrosinase reaction/chitosan adsorption for selectively removing phenols from aqueous mixtures. <i>Biotechnology and Bioengineering</i> , 1992, 40, 1011-1018.	1.7	56
47	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. <i>Nature Nanotechnology</i> , 2021, 16, 688-697.	15.6	56
48	Enzymatic modification of the synthetic polymer polyhydroxystyrene. <i>Enzyme and Microbial Technology</i> , 1999, 25, 660-668.	1.6	55
49	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuli-Responsive Materials. <i>Advanced Functional Materials</i> , 2012, 22, 3004-3012.	7.8	54
50	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. <i>Lab on A Chip</i> , 2008, 8, 420.	3.1	53
51	Redox-Cycling and H <sub>2</sub> O <sub>2</sub> Generation by Fabricated Catecholic Films in the Absence of Enzymes. <i>Biomacromolecules</i> , 2011, 12, 880-888.	2.6	53
52	Electronic modulation of biochemical signal generation. <i>Nature Nanotechnology</i> , 2014, 9, 605-610.	15.6	52
53	Biomimetic fabrication of information-rich phenolic-chitosan films. <i>Soft Matter</i> , 2011, 7, 9601.	1.2	51
54	Tyrosine-based -Activatable Pro-Tag- Enzyme-catalyzed protein capture and release. <i>Biotechnology and Bioengineering</i> , 2006, 93, 1207-1215.	1.7	50

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55	pH- and Voltage-Responsive Chitosan Hydrogel through Covalent Cross-Linking with Catechol. <i>Journal of Physical Chemistry B</i> , 2012, 116, 1579-1585.	1.2	50
56	Biospecific Self-Assembly of a Nanoparticle Coating for Targeted and Stimuli-Responsive Drug Delivery. <i>Advanced Functional Materials</i> , 2015, 25, 1404-1417.	7.8	50
57	Electro-molecular Assembly: Electrical Writing of Information into an Erasable Polysaccharide Medium. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 19780-19786.	4.0	49
58	Quorum Sensing Communication: Molecularly Connecting Cells, Their Neighbors, and Even Devices. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2020, 11, 447-468.	3.3	48
59	Compartmentalized Multilayer Hydrogel Formation Using a Stimulus-Responsive Self-Assembling Polysaccharide. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 2948-2957.	4.0	47
60	A platform of genetically engineered bacteria as vehicles for localized delivery of therapeutics: Toward applications for Crohn's disease. <i>Bioengineering and Translational Medicine</i> , 2018, 3, 209-221.	3.9	47
61	Signal-Directed Sequential Assembly of Biomolecules on Patterned Surfaces. <i>Langmuir</i> , 2005, 21, 2104-2107.	1.6	46
62	Chitosan-Coated Wires: Conferring Electrical Properties to Chitosan Fibers. <i>Biomacromolecules</i> , 2009, 10, 858-864.	2.6	46
63	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. <i>Biomaterials</i> , 2012, 33, 5136-5143.	5.7	46
64	Tyrosinase-mediated grafting and crosslinking of natural phenols confers functional properties to chitosan. <i>Biochemical Engineering Journal</i> , 2014, 89, 21-27.	1.8	46
65	Reversible Programming of Soft Matter with Reconfigurable Mechanical Properties. <i>Advanced Functional Materials</i> , 2017, 27, 1605665.	7.8	46
66	Redox Probing for Chemical Information of Oxidative Stress. <i>Analytical Chemistry</i> , 2017, 89, 1583-1592.	3.2	46
67	Electrical Programming of Soft Matter: Using Temporally Varying Electrical Inputs To Spatially Control Self Assembly. <i>Biomacromolecules</i> , 2018, 19, 364-373.	2.6	46
68	A redox-based electrogenetic CRISPR system to connect with and control biological information networks. <i>Nature Communications</i> , 2020, 11, 2427.	5.8	46
69	Melanin Produced by the Fast-Growing Marine Bacterium <i>Vibrio natriegens</i> through Heterologous Biosynthesis: Characterization and Application. <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	45
70	Reverse Engineering To Suggest Biologically Relevant Redox Activities of Phenolic Materials. <i>ACS Chemical Biology</i> , 2013, 8, 716-724.	1.6	44
71	Electrochemical Measurement of the $\beta$ -Galactosidase Reporter from Live Cells: A Comparison to the Miller Assay. <i>ACS Synthetic Biology</i> , 2016, 5, 28-35.	1.9	44
72	Using a Redox Modality to Connect Synthetic Biology to Electronics: Hydrogel-Based Chemo-Electro Signal Transduction for Molecular Communication. <i>Advanced Healthcare Materials</i> , 2017, 6, 1600908.	3.9	44

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73	Reagentless Protein Assembly Triggered by Localized Electrical Signals. <i>Advanced Materials</i> , 2009, 21, 984-988.	11.1	43
74	Electrobiofabrication: electrically based fabrication with biologically derived materials. <i>Biofabrication</i> , 2019, 11, 032002.	3.7	43
75	Reversible Electroaddressing of Self-assembling Amino Acid Conjugates. <i>Advanced Functional Materials</i> , 2011, 21, 1575-1580.	7.8	42
76	Characterization of the cathodic electrodeposition of semicrystalline chitosan hydrogel. <i>Materials Letters</i> , 2012, 87, 97-100.	1.3	41
77	Connecting Biology to Electronics: Molecular Communication via Redox Modality. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700789.	3.9	40
78	Optically clear alginate hydrogels for spatially controlled cell entrapment and culture at microfluidic electrode surfaces. <i>Lab on A Chip</i> , 2013, 13, 1854.	3.1	39
79	Encapsulated fusion protein confers sense and response activity to chitosan alginate capsules to manipulate bacterial quorum sensing. <i>Biotechnology and Bioengineering</i> , 2013, 110, 552-562.	1.7	37
80	Redox Is a Global Biodevice Information Processing Modality. <i>Proceedings of the IEEE</i> , 2019, 107, 1402-1424.	16.4	37
81	In-Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuli-Responsive Polysaccharides. <i>Advanced Functional Materials</i> , 2010, 20, 1645-1652.	7.8	36
82	Redox cycling-based amplifying electrochemical sensor for in situ clozapine antipsychotic treatment monitoring. <i>Electrochimica Acta</i> , 2014, 130, 497-503.	2.6	36
83	Reverse Engineering To Characterize Redox Properties: Revealing Melanin's Redox Activity through Mediated Electrochemical Probing. <i>Chemistry of Materials</i> , 2018, 30, 5814-5826.	3.2	36
84	Biological nanofactories facilitate spatially selective capture and manipulation of quorum sensing bacteria in a bioMEMS device. <i>Lab on A Chip</i> , 2010, 10, 1128.	3.1	35
85	Toward Understanding the Environmental Control of Hydrogel Film Properties: How Salt Modulates the Flexibility of Chitosan Chains. <i>Macromolecules</i> , 2017, 50, 5946-5952.	2.2	35
86	Distal modulation of bacterial cell-cell signalling in a synthetic ecosystem using partitioned microfluidics. <i>Lab on A Chip</i> , 2015, 15, 1842-1851.	3.1	34
87	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. <i>Biomacromolecules</i> , 2018, 19, 3502-3514.	2.6	34
88	Information processing through a bio-based redox capacitor: Signatures for redox-cycling. <i>Bioelectrochemistry</i> , 2014, 98, 94-102.	2.4	33
89	Nano-guided cell networks as conveyors of molecular communication. <i>Nature Communications</i> , 2015, 6, 8500.	5.8	33
90	Reliable clinical serum analysis with reusable electrochemical sensor: Toward point-of-care measurement of the antipsychotic medication clozapine. <i>Biosensors and Bioelectronics</i> , 2017, 95, 55-59.	5.3	33

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91	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion proâ€tag. <i>Biotechnology and Bioengineering</i> , 2008, 99, 499-507.	1.7	32
92	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.	1.3	32
93	Orthogonal Enzymatic Reactions for the Assembly of Proteins at Electrode Addresses. <i>Langmuir</i> , 2009, 25, 338-344.	1.6	31
94	Electrochemical Study of the Catechol-Modified Chitosan System for Clozapine Treatment Monitoring. <i>Langmuir</i> , 2014, 30, 14686-14693.	1.6	31
95	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. <i>Biomacromolecules</i> , 2016, 17, 558-563.	2.6	31
96	Engineering bacterial motility towards hydrogen-peroxide. <i>PLoS ONE</i> , 2018, 13, e0196999.	1.1	31
97	Biofabrication of antibodies and antigens via IgGâ€binding domain engineered with activatable pentatyrosine proâ€tag. <i>Biotechnology and Bioengineering</i> , 2009, 103, 231-240.	1.7	30
98	Glucose Oxidase-Mediated Gelation: A Simple Test To Detect Glucose in Food Products. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 8963-8967.	2.4	30
99	Electrodeposition of a biopolymeric hydrogel in track-etched micropores. <i>Soft Matter</i> , 2013, 9, 2131.	1.2	30
100	Accessing biology's toolbox for the mesoscale biofabrication of soft matter. <i>Soft Matter</i> , 2013, 9, 6019.	1.2	30
101	Electrofabrication of functional materials: Chloramine-based antimicrobial film for infectious wound treatment. <i>Acta Biomaterialia</i> , 2018, 73, 190-203.	4.1	30
102	Redox Electrochemistry to Interrogate and Control Biomolecular Communication. <i>IScience</i> , 2020, 23, 101545.	1.9	30
103	Enzymatic coupling of phenol vapors onto chitosan. <i>Biotechnology and Bioengineering</i> , 2001, 76, 325-332.	1.7	29
104	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.	4.0	29
105	Intramolecular versus Intermolecular Hydrogen Bonding in the Adsorption of Aromatic Alcohols onto an Acrylic Ester Sorbent. <i>Journal of Physical Chemistry B</i> , 2000, 104, 4735-4744.	1.2	28
106	Electroaddressing Agarose Using Fmoc-Phenylalanine as a Temporary Scaffold. <i>Langmuir</i> , 2011, 27, 7380-7384.	1.6	28
107	Biopolymer-based materials: the nanoscale components and their hierarchical assembly. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 214-219.	2.8	27
108	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. <i>Analytical Chemistry</i> , 2016, 88, 7213-7221.	3.2	27

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109	Electrical Writing onto a Dynamically Responsive Polysaccharide Medium: Patterning Structure and Function into a Reconfigurable Medium. <i>Advanced Functional Materials</i> , 2018, 28, 1803139.	7.8	27
110	Catechol-Based Capacitor for Redox-Linked Bioelectronics. <i>ACS Applied Electronic Materials</i> , 2019, 1, 1337-1347.	2.0	26
111	Improved production of heterologous protein from <i>Streptomyces lividans</i> . <i>Applied Microbiology and Biotechnology</i> , 1990, 33, 395-400.	1.7	25
112	Hierarchical patterning via dynamic sacrificial printing of stimuli-responsive hydrogels. <i>Biofabrication</i> , 2020, 12, 035007.	3.7	25
113	Functionalizing Soft Matter for Molecular Communication. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 320-328.	2.6	24
114	Electrical signals triggered controllable formation of calcium-alginate film for wound treatment. <i>Journal of Materials Science: Materials in Medicine</i> , 2017, 28, 146.	1.7	24
115	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.	3.1	24
116	Hydrogel Patterning with Catechol Enables Networked Electron Flow. <i>Advanced Functional Materials</i> , 2021, 31, 2007709.	7.8	24
117	Crosslinking Lessons From Biology: Enlisting Enzymes for Macromolecular Assembly. <i>Journal of Adhesion</i> , 2009, 85, 576-589.	1.8	23
118	Biofabrication with Biopolymers and Enzymes: Potential for Constructing Scaffolds from Soft Matter. <i>International Journal of Artificial Organs</i> , 2011, 34, 215-224.	0.7	23
119	Programmable "Semismart" Sensor: Relevance to Monitoring Antipsychotics. <i>Advanced Functional Materials</i> , 2015, 25, 2156-2165.	7.8	23
120	Chip modularity enables molecular information access from organ-on-chip devices with quality control. <i>Sensors and Actuators B: Chemical</i> , 2019, 295, 30-39.	4.0	23
121	A Coculture Based Tyrosine-Tyrosinase Electrochemical Gene Circuit for Connecting Cellular Communication with Electronic Networks. <i>ACS Synthetic Biology</i> , 2020, 9, 1117-1128.	1.9	23
122	Biofabricated film with enzymatic and redox-capacitor functionalities to harvest and store electrons. <i>Biofabrication</i> , 2013, 5, 015008.	3.7	22
123	Catechol-Based Hydrogel for Chemical Information Processing. <i>Biomimetics</i> , 2017, 2, 11.	1.5	21
124	Electrodeposition of a magnetic and redox-active chitosan film for capturing and sensing metabolic active bacteria. <i>Carbohydrate Polymers</i> , 2018, 195, 505-514.	5.1	21
125	Title is missing!. <i>Journal of Polymers and the Environment</i> , 2002, 10, 77-84.	2.4	20
126	Paraquat "Melanin Redox-Cycling: Evidence from Electrochemical Reverse Engineering. <i>ACS Chemical Neuroscience</i> , 2016, 7, 1057-1067.	1.7	20



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127	Conferring biological activity to native spider silk: A biofunctionalized protein-based microfiber. <i>Biotechnology and Bioengineering</i> , 2017, 114, 83-95.	1.7	20
128	Redox Activities of Melanins Investigated by Electrochemical Reverse Engineering: Implications for their Roles in Oxidative Stress. <i>Journal of Investigative Dermatology</i> , 2020, 140, 537-543.	0.3	20
129	Towards area-based in vitro metabolic engineering: Assembly of Pfs enzyme onto patterned microfabricated chips. <i>Biotechnology Progress</i> , 2008, 24, 1042-1051.	1.3	19
130	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. <i>Biomacromolecules</i> , 2008, 9, 1417-1423.	2.6	19
131	Exploring pH-Responsive, Switchable Crosslinking Mechanisms for Programming Reconfigurable Hydrogels Based on Aminopolysaccharides. <i>Chemistry of Materials</i> , 2018, 30, 8597-8605.	3.2	19
132	Mediated electrochemistry for redox-based biological targeting: entangling sensing and actuation for maximizing information transfer. <i>Current Opinion in Biotechnology</i> , 2021, 71, 137-144.	3.3	19
133	Toward scalable fabrication of electrochemical paper sensor without surface functionalization. <i>Npj Flexible Electronics</i> , 2022, 6, .	5.1	18
134	Reversible Vesicle Restraint in Response to Spatiotemporally Controlled Electrical Signals: A Bridge between Electrical and Chemical Signaling Modes. <i>Langmuir</i> , 2007, 23, 286-291.	1.6	17
135	Enzymatic Writing to Soft Films: Potential to Filter, Store, and Analyze Biologically Relevant Chemical Information. <i>Advanced Functional Materials</i> , 2014, 24, 480-491.	7.8	17
136	An Electrochemical Micro-System for Clozapine Antipsychotic Treatment Monitoring. <i>Electrochimica Acta</i> , 2015, 163, 260-270.	2.6	17
137	Modular construction of multi-subunit protein complexes using engineered tags and microbial transglutaminase. <i>Metabolic Engineering</i> , 2016, 38, 1-9.	3.6	17
138	Signal processing approach to probe chemical space for discriminating redox signatures. <i>Biosensors and Bioelectronics</i> , 2018, 112, 127-135.	5.3	17
139	Mediated Electrochemistry to Mimic Biology's Oxidative Assembly of Functional Matrices. <i>Advanced Functional Materials</i> , 2020, 30, 2001776.	7.8	17
140	Self-Assembly with Orthogonal-Imposed Stimuli To Impart Structure and Confer Magnetic Function To Electrodeposited Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 10587-10598.	4.0	16
141	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. <i>Advanced Healthcare Materials</i> , 2016, 5, 2595-2616.	3.9	16
142	Controlling localization of <i>Escherichia coli</i> populations using a two-part synthetic motility circuit: An accelerator and brake. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2883-2895.	1.7	16
143	Electrochemistry for bio-device molecular communication: The potential to characterize, analyze and actuate biological systems. <i>Nano Communication Networks</i> , 2017, 11, 76-89.	1.6	15
144	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 169, 470-477.	2.5	15

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145	Validation of oxidative stress assay for schizophrenia. <i>Schizophrenia Research</i> , 2019, 212, 126-133.	1.1	15
146	Electrical cuing of chitosan's mesoscale organization. <i>Reactive and Functional Polymers</i> , 2020, 148, 104492.	2.0	15
147	Electro-assembly of a dynamically adaptive molten fibril state for collagen. <i>Science Advances</i> , 2022, 8, eabl7506.	4.7	15
148	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. <i>Bioconjugate Chemistry</i> , 2018, 29, 1809-1822.	1.8	14
149	Coupling Self-Assembly Mechanisms to Fabricate Molecularly and Electrically Responsive Films. <i>Biomacromolecules</i> , 2019, 20, 969-978.	2.6	14
150	Catechol-Based Molecular Memory Film for Redox Linked Bioelectronics. <i>Advanced Electronic Materials</i> , 2020, 6, 2000452.	2.6	14
151	Interactive Materials for Bidirectional Redox-Based Communication. <i>Advanced Materials</i> , 2021, 33, e2007758.	11.1	14
152	Association of acute psychosocial stress with oxidative stress: Evidence from serum analysis. <i>Redox Biology</i> , 2021, 47, 102138.	3.9	14
153	Integrated biofabrication for electro-addressed in-film bioprocessing. <i>Biotechnology Journal</i> , 2012, 7, 428-439.	1.8	13
154	Biofabricated Nanoparticle Coating for Liver Cell Targeting. <i>Advanced Healthcare Materials</i> , 2015, 4, 1972-1981.	3.9	13
155	Pro- and Anti-oxidant Properties of Redox-Active Catechol-Chitosan Films. <i>Frontiers in Chemistry</i> , 2019, 7, 541.	1.8	13
156	Mediated Electrochemical Probing: A Systems-Level Tool for Redox Biology. <i>ACS Chemical Biology</i> , 2021, 16, 1099-1110.	1.6	13
157	Design optimization for bioMEMS studies of enzyme-controlled metabolic pathways. <i>Biomedical Microdevices</i> , 2008, 10, 899-908.	1.4	12
158	Vesicle capture on patterned surfaces coated with amphiphilic biopolymers. <i>Soft Matter</i> , 2011, 7, 1219-1226.	1.2	12
159	Incorporating LsrK Al <sup>2+</sup> quorum quenching capability in a functionalized biopolymer capsule. <i>Biotechnology and Bioengineering</i> , 2018, 115, 278-289.	1.7	12
160	Reversibly Reconfigurable Cross-Linking Induces Fusion of Separate Chitosan Hydrogel Films. <i>ACS Applied Bio Materials</i> , 2018, 1, 1695-1704.	2.3	12
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