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	Electro-assembly of a dynamically adaptive molten fibril state for collagen. Science Advances, 2022, 8, eabl7506.	10.3	15
2	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
3	Toward scalable fabrication of electrochemical paper sensor without surface functionalization. Npj Flexible Electronics, 2022, 6, .	10.7	18
4	System-Level Network Analysis of a Catechol Component for Redox Bioelectronics. ACS Applied Electronic Materials, 2022, 4, 2490-2501.	4.3	7
5	Network-based redox communication between abiotic interactive materials. IScience, 2022, 25, 104548.	4.1	4
6	Hydrogel Patterning with Catechol Enables Networked Electron Flow. Advanced Functional Materials, 2021, 31, 2007709.	14.9	24
7	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. Nature Nanotechnology, 2021, 16, 688-697.	31.5	56
8	Interactive Materials for Bidirectional Redoxâ€Based Communication. Advanced Materials, 2021, 33, e2007758.	21.0	14
9	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
10	Mediated Electrochemical Probing: A Systems-Level Tool for Redox Biology. ACS Chemical Biology, 2021, 16, 1099-1110.	3.4	13
11	A Redox-Based Autoinduction Strategy to Facilitate Expression of 5xCys-Tagged Proteins for Electrobiofabrication. Frontiers in Microbiology, 2021, 12, 675729.	3.5	5
12	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
13	Association of acute psychosocial stress with oxidative stress: Evidence from serum analysis. Redox Biology, 2021, 47, 102138.	9.0	14
14	Electronic signals are electrogenetically relayed to control cell growth and co-culture composition. Metabolic Engineering Communications, 2021, 13, e00176.	3.6	11
15	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
16	Parsed synthesis of pyocyanin via co-culture enables context-dependent intercellular redox communication. Microbial Cell Factories, 2021, 20, 215.	4.0	5
17	Tethered molecular redox capacitors for nanoconfinement-assisted electrochemical signal amplification. Nanoscale, 2020, 12, 3668-3676.	5.6	10
18	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

#	Article	IF	Citations
19	Redox Electrochemistry to Interrogate and Control Biomolecular Communication. IScience, 2020, 23, 101545.	4.1	30
20	Catecholâ€Based Molecular Memory Film for Redox Linked Bioelectronics. Advanced Electronic Materials, 2020, 6, 2000452.	5.1	14
21	A redox-based electrogenetic CRISPR system to connect with and control biological information networks. Nature Communications, 2020, 11, 2427.	12.8	46
22	Mediated Electrochemistry to Mimic Biology's Oxidative Assembly of Functional Matrices. Advanced Functional Materials, 2020, 30, 2001776.	14.9	17
23	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
24	Hierarchical patterning via dynamic sacrificial printing of stimuli-responsive hydrogels. Biofabrication, 2020, 12, 035007.	7.1	25
25	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
26	Transglutaminase-mediated assembly of multi-enzyme pathway onto TMV brush surfaces for synthesis of bacterial autoinducer-2. Biofabrication, 2020, 12, 045017.	7.1	4
27	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
28	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
29	Electrical cuing of chitosan's mesoscale organization. Reactive and Functional Polymers, 2020, 148, 104492.	4.1	15
30	Polyelectrolyte in Electric Field: Disparate Conformational Behavior along an Aminopolysaccharide Chain. ACS Omega, 2020, 5, 12016-12026.	3.5	11
31	Validation of oxidative stress assay for schizophrenia. Schizophrenia Research, 2019, 212, 126-133.	2.0	15
32	Pro- and Anti-oxidant Properties of Redox-Active Catechol-Chitosan Films. Frontiers in Chemistry, 2019, 7, 541.	3.6	13
33	Catechol-Based Capacitor for Redox-Linked Bioelectronics. ACS Applied Electronic Materials, 2019, 1, 1337-1347.	4.3	26
34	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
35	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
36	Redox Is a Global Biodevice Information Processing Modality. Proceedings of the IEEE, 2019, 107, 1402-1424.	21.3	37

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37	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
38	Role of polydopamineâ€™s redox-activity on its pro-oxidant, radical-scavenging, and antimicrobial activities. Acta Biomaterialia, 2019, 88, 181-196.	8.3	137
39	Electrobiofabrication: electrically based fabrication with biologically derived materials. Biofabrication, 2019, 11, 032002.	7.1	43
40	Mimicking Biology's Sulfur Switching Mechanism for Redox Signal Reception. , 2019, , .		0
41	Coupling Self-Assembly Mechanisms to Fabricate Molecularly and Electrically Responsive Films. Biomacromolecules, 2019, 20, 969-978.	5.4	14
42	Electrochemical reverse engineering to probe for drug-phenol redox interactions. Electrochimica Acta, 2019, 295, 742-750.	5.2	4
43	Political Variables and State Legitimacy. Harvard Deusto Business Research, 2019, 8, 123.	0.3	1
44	Electrofabrication of functional materials: Chloramine-based antimicrobial film for infectious wound treatment. Acta Biomaterialia, 2018, 73, 190-203.	8.3	30
45	Bio-inspired redox-cycling antimicrobial film for sustained generation of reactive oxygen species. Biomaterials, 2018, 162, 109-122.	11.4	72
46	Signal processing approach to probe chemical space for discriminating redox signatures. Biosensors and Bioelectronics, 2018, 112, 127-135.	10.1	17
47	The Role of Microsystems Integration Towards Point-of-Care Clozapine Treatment Monitoring in Schizophrenia. , 2018, 2, 1-4.		4
48	Electrical Programming of Soft Matter: Using Temporally Varying Electrical Inputs To Spatially Control Self Assembly. Biomacromolecules, 2018, 19, 364-373.	5.4	46
49	Incorporating LsrK Alâ€2 quorum quenching capability in a functionalized biopolymer capsule. Biotechnology and Bioengineering, 2018, 115, 278-289.	3.3	12
50	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
51	Exploring pH-Responsive, Switchable Crosslinking Mechanisms for Programming Reconfigurable Hydrogels Based on Aminopolysaccharides. Chemistry of Materials, 2018, 30, 8597-8605.	6.7	19
52	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
53	Reversibly Reconfigurable Cross-Linking Induces Fusion of Separate Chitosan Hydrogel Films. ACS Applied Bio Materials, 2018, 1, 1695-1704.	4.6	12
54	Redox: Electron-Based Approach to Bio-Device Molecular Communication. , 2018, , .		2

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55	Engineering bacterial motility towards hydrogen-peroxide. PLoS ONE, 2018, 13, e0196999.	2.5	31
56	Focusing quorum sensing signalling by nanoâ€magnetic assembly. Environmental Microbiology, 2018, 20, 2585-2597.	3.8	7
57	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. Colloids and Surfaces B: Biointerfaces, 2018, 169, 470-477.	5.0	15
58	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. Biomacromolecules, 2018, 19, 3502-3514.	5.4	34
59	Modification and Assembly of a Versatile Lactonase for Bacterial Quorum Quenching. Molecules, 2018, 23, 341.	3.8	8
60	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
61	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. Bioconjugate Chemistry, 2018, 29, 1809-1822.	3.6	14
62	An immune magnetic nano-assembly for specifically amplifying intercellular quorum sensing signals. Colloids and Surfaces B: Biointerfaces, 2018, 172, 197-206.	5.0	6
63	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
64	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
65	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
66	Electronic control of gene expression and cell behaviour in Escherichia coli through redox signalling. Nature Communications, 2017, 8, 14030.	12.8	120
67	Reversible Programing of Soft Matter with Reconfigurable Mechanical Properties. Advanced Functional Materials, 2017, 27, 1605665.	14.9	46
68	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
69	The interplay of electrode- and bio-materials in a redox-cycling-based clozapine sensor. Electrochemistry Communications, 2017, 79, 33-36.	4.7	9
70	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
71	Molecular processes in an electrochemical clozapine sensor. Biointerphases, 2017, 12, 02B401.	1.6	7
72	Redox Probing for Chemical Information of Oxidative Stress. Analytical Chemistry, 2017, 89, 1583-1592.	6.5	46

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73	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
74	The Analgesic Acetaminophen and the Antipsychotic Clozapine Can Each Redox-Cycle with Melanin. ACS Chemical Neuroscience, 2017, 8, 2766-2777.	3.5	11
75	Spectroelectrochemical Reverse Engineering DemonstratesThat Melaninâ€™s Redox and Radical Scavenging Activities Are Linked. Biomacromolecules, 2017, 18, 4084-4098.	5.4	63
76	Connecting Biology to Electronics: Molecular Communication via Redox Modality. Advanced Healthcare Materials, 2017, 6, 1700789.	7.6	40
77	A simple and reusable bilayer membrane-based microfluidic device for the study of gradient-mediated bacterial behaviors. Biomicrofluidics, 2017, 11, 044114.	2.4	6
78	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
79	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
80	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
81	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
82	Conferring biological activity to native spider silk: A biofunctionalized proteinâ€based microfiber. Biotechnology and Bioengineering, 2017, 114, 83-95.	3.3	20
83	Constructing â€œquantized quorumsâ€•to guide emergent phenotypes through quorum quenching capsules. Biotechnology and Bioengineering, 2017, 114, 407-415.	3.3	8
84	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
85	Catechol-Based Hydrogel for Chemical Information Processing. Biomimetics, 2017, 2, 11.	3.3	21
86	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. Analytical Chemistry, 2016, 88, 7213-7221.	6.5	27
87	Data on biochemical fluxes generated from biofabricated enzyme complexes assembled through engineered tags and microbial transglutaminase. Data in Brief, 2016, 8, 1031-1035.	1.0	4
88	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. Advanced Healthcare Materials, 2016, 5, 2595-2616.	7.6	16
89	Electro-molecular Assembly: Electrical Writing of Information into an Erasable Polysaccharide Medium. ACS Applied Materials & Interfaces, 2016, 8, 19780-19786.	8.0	49
90	Networking biofabricated systems through molecular communication. Nanomedicine, 2016, 11, 1503-1506.	3.3	5

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91	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
92	Modular construction of multi-subunit protein complexes using engineered tags and microbial transglutaminase. Metabolic Engineering, 2016, 38, 1-9.	7.0	17
93	Paraquatâ€“Melanin Redox-Cycling: Evidence from Electrochemical Reverse Engineering. ACS Chemical Neuroscience, 2016, 7, 1057-1067.	3.5	20
94	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. Biomacromolecules, 2016, 17, 558-563.	5.4	31
95	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
96	Reverse Engineering Applied to Red Human Hair Pheomelanin Reveals Redox-Buffering as a Pro-Oxidant Mechanism. Scientific Reports, 2015, 5, 18447.	3.3	67
97	Biofabricated Nanoparticle Coating for Liverâ€Cell Targeting. Advanced Healthcare Materials, 2015, 4, 1972-1981.	7.6	13
98	Programmable â€œSemismartâ€•Sensor: Relevance to Monitoring Antipsychotics. Advanced Functional Materials, 2015, 25, 2156-2165.	14.9	23
99	Multidimensional Mapping Method Using an Arrayed Sensing System for Cross-Reactivity Screening. PLoS ONE, 2015, 10, e0116310.	2.5	10
100	Biospecific Selfâ€Assembly of a Nanoparticle Coating for Targeted and Stimuliâ€Responsive Drug Delivery. Advanced Functional Materials, 2015, 25, 1404-1417.	14.9	50
101	An Electrochemical Micro-System for Clozapine Antipsychotic Treatment Monitoring. Electrochimica Acta, 2015, 163, 260-270.	5.2	17
102	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
103	Functionalizing Soft Matter for Molecular Communication. ACS Biomaterials Science and Engineering, 2015, 1, 320-328.	5.2	24
104	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. Polymers, 2015, 7, 1-46.	4.5	87
105	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
106	Nano-guided cell networks as conveyors of molecular communication. Nature Communications, 2015, 6, 8500.	12.8	33
107	A â€˜bioproduction breadboardâ€™: programming, assembling, and actuating cellular networks. Current Opinion in Biotechnology, 2015, 36, 154-160.	6.6	10
108	pH-Responsive Self-Assembly of Polysaccharide through a Rugged Energy Landscape. Journal of the American Chemical Society, 2015, 137, 13024-13030.	13.7	89

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109	Electrochemical Study of the Catechol-Modified Chitosan System for Clozapine Treatment Monitoring. Langmuir, 2014, 30, 14686-14693.	3.5	31
110	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
111	Information processing through a bio-based redox capacitor: Signatures for redox-cycling. Bioelectrochemistry, 2014, 98, 94-102.	4.6	33
112	Tyrosinase-mediated grafting and crosslinking of natural phenols confers functional properties to chitosan. Biochemical Engineering Journal, 2014, 89, 21-27.	3.6	46
113	Redox cycling-based amplifying electrochemical sensor for in situ clozapine antipsychotic treatment monitoring. Electrochimica Acta, 2014, 130, 497-503.	5.2	36
114	Redox-capacitor to connect electrochemistry to redox-biology. Analyst, The, 2014, 139, 32-43.	3.5	71
115	Coding for hydrogel organization through signal guided self-assembly. Soft Matter, 2014, 10, 465-469.	2.7	66
116	Context-Dependent Redox Properties of Natural Phenolic Materials. Biomacromolecules, 2014, 15, 1653-1662.	5.4	71
117	Electronic modulation of biochemical signal generation. Nature Nanotechnology, 2014, 9, 605-610.	31.5	52
118	Compartmentalized Multilayer Hydrogel Formation Using a Stimulus-Responsive Self-Assembling Polysaccharide. ACS Applied Materials & Interfaces, 2014, 6, 2948-2957.	8.0	47
119	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
120	Amplified and in Situ Detection of Redox-Active Metabolite Using a Biobased Redox Capacitor. Analytical Chemistry, 2013, 85, 2102-2108.	6.5	86
121	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. Soft Matter, 2013, 9, 2703.	2.7	59
122	Biofabricated film with enzymatic and redox-capacitor functionalities to harvest and store electrons. Biofabrication, 2013, 5, 015008.	7.1	22
123	Electrodeposition of a biopolymeric hydrogel in track-etched micropores. Soft Matter, 2013, 9, 2131.	2.7	30
124	Accessing biology's toolbox for the mesoscale biofabrication of soft matter. Soft Matter, 2013, 9, 6019.	2.7	30
125	Reverse Engineering To Suggest Biologically Relevant Redox Activities of Phenolic Materials. ACS Chemical Biology, 2013, 8, 716-724.	3.4	44
126	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

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127	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
128	Catechol-modified Chitosan System as a Bio-amplifier for Schizophrenia Treatment Analysis. Materials Research Society Symposia Proceedings, 2013, 1572, 1.	0.1	2
129	Autonomous bacterial localization and gene expression based on nearby cell receptor density. Molecular Systems Biology, 2013, 9, 636.	7.2	65
130	Electrodeposition of a Biopolymeric Hydrogel: Potential for One-Step Protein Electroaddressing. Biomacromolecules, 2012, 13, 1181-1189.	5.4	82
131	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
132	Characterization of the cathodic electrodeposition of semicrystalline chitosan hydrogel. Materials Letters, 2012, 87, 97-100.	2.6	41
133	Biofabrication: programmable assembly of polysaccharide hydrogels in microfluidics as biocompatible scaffolds. Journal of Materials Chemistry, 2012, 22, 7659.	6.7	75
134	pH- and Voltage-Responsive Chitosan Hydrogel through Covalent Cross-Linking with Catechol. Journal of Physical Chemistry B, 2012, 116, 1579-1585.	2.6	50
135	Redox Capacitor to Establish Bioâ€Device Redoxâ€Connectivity. Advanced Functional Materials, 2012, 22, 1409-1416.	14.9	65
136	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuliâ€Responsive Materials. Advanced Functional Materials, 2012, 22, 3004-3012.	14.9	54
137	Integrated biofabrication for electroâ€addressed inâ€film bioprocessing. Biotechnology Journal, 2012, 7, 428-439.	3.5	13
138	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. Biomaterials, 2012, 33, 5136-5143.	11.4	46
139	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. Advanced Functional Materials, 2012, 22, 519-528.	14.9	61
140	Vesicle capture on patterned surfaces coated with amphiphilic biopolymers. Soft Matter, 2011, 7, 1219-1226.	2.7	12
141	Electroaddressing Agarose Using Fmoc-Phenylalanine as a Temporary Scaffold. Langmuir, 2011, 27, 7380-7384.	3.5	28
142	Redox-Cycling and H₂O₂ Generation by Fabricated Catecholic Films in the Absence of Enzymes. Biomacromolecules, 2011, 12, 880-888.	5.4	53
143	Mechanism of anodic electrodeposition of calcium alginate. Soft Matter, 2011, 7, 5677.	2.7	103
144	Biocompatible multi-address 3D cell assembly in microfluidic devices using spatially programmable gel formation. Lab on A Chip, 2011, 11, 2316.	6.0	68

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145	Biomimetic fabrication of information-rich phenolic-chitosan films. Soft Matter, 2011, 7, 9601.	2.7	51
146	Biofabrication with Biopolymers and Enzymes: Potential for Constructing Scaffolds from Soft Matter. International Journal of Artificial Organs, 2011, 34, 215-224.	1.4	23
147	Reversible Electroaddressing of Selfâ€assembling Aminoâ€Acid Conjugates. Advanced Functional Materials, 2011, 21, 1575-1580.	14.9	42
148	Coupling Electrodeposition with Layerâ€byâ€Layer Assembly to Address Proteins within Microfluidic Channels. Advanced Materials, 2011, 23, 5817-5821.	21.0	83
149	Inâ€Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuliâ€Responsive Polysaccharides. Advanced Functional Materials, 2010, 20, 1645-1652.	14.9	36
150	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. Advanced Functional Materials, 2010, 20, 2683-2694.	14.9	109
151	Biofabrication to build the biologyâ€“device interface. Biofabrication, 2010, 2, 022002.	7.1	94
152	Biofabrication Based on the Enzyme-Catalyzed Coupling and Crosslinking of Pre-Formed Biopolymers. ACS Symposium Series, 2010, , 35-44.	0.5	5
153	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
154	In situ quantitative visualization and characterization of chitosan electrodeposition with paired sidewall electrodes. Soft Matter, 2010, 6, 3177.	2.7	150
155	Electroaddressing of Cell Populations by Coâ€Deposition with Calcium Alginate Hydrogels. Advanced Functional Materials, 2009, 19, 2074-2080.	14.9	115
156	Reagentless Protein Assembly Triggered by Localized Electrical Signals. Advanced Materials, 2009, 21, 984-988.	21.0	43
157	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
158	Orthogonal Enzymatic Reactions for the Assembly of Proteins at Electrode Addresses. Langmuir, 2009, 25, 338-344.	3.5	31
159	Crosslinking Lessons From Biology: Enlisting Enzymes for Macromolecular Assembly. Journal of Adhesion, 2009, 85, 576-589.	3.0	23
160	Chitosan-Coated Wires: Conferring Electrical Properties to Chitosan Fibers. Biomacromolecules, 2009, 10, 858-864.	5.4	46
161	Novel approach for generating an electrochemically active film with amplification, switching and diode-like behavior. , 2009, , .		0
162	Design optimization for bioMEMS studies of enzyme-controlled metabolic pathways. Biomedical Microdevices, 2008, 10, 899-908.	2.8	12

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163	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion proâ€tag. Biotechnology and Bioengineering, 2008, 99, 499-507.	3.3	32
164	Towards areaâ€based in vitro metabolic engineering: Assembly of Pfs enzyme onto patterned microfabricated chips. Biotechnology Progress, 2008, 24, 1042-1051.	2.6	19
165	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. Lab on A Chip, 2008, 8, 420.	6.0	53
166	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. Biomacromolecules, 2008, 9, 1417-1423.	5.4	19
167	Chitosan: a soft interconnect for hierarchical assembly of nano-scale components. Soft Matter, 2007, 3, 521.	2.7	113
168	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
169	Biopolymer-based materials: the nanoscale components and their hierarchical assembly. Current Opinion in Chemical Biology, 2007, 11, 214-219.	6.1	27
170	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. Lab on A Chip, 2006, 6, 1315.	6.0	68
171	Functionalizing Chitosan Using Tyrosinase: From the Construction of Bio-Based Products to the Assembly of Stimuli-Responsive Materials for Biofabrication. ACS Symposium Series, 2006, , 262-271.	0.5	0
172	Tyrosine-based â€œActivatable Pro-Tagâ€: Enzyme-catalyzed protein capture and release. Biotechnology and Bioengineering, 2006, 93, 1207-1215.	3.3	50
173	Patterned Assembly of Genetically Modified Viral Nanotemplates via Nucleic Acid Hybridization. Nano Letters, 2005, 5, 1931-1936.	9.1	156
174	Signal-Directed Sequential Assembly of Biomolecules on Patterned Surfaces. Langmuir, 2005, 21, 2104-2107.	3.5	46
175	Biofabrication with Chitosan. Biomacromolecules, 2005, 6, 2881-2894.	5.4	667
176	Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles. Langmuir, 2005, 21, 3641-3646.	3.5	90
177	Biofabrication: using biological materials and biocatalysts to construct nanostructured assemblies. Trends in Biotechnology, 2004, 22, 593-599.	9.3	108
178	Enzyme-catalyzed gel formation of gelatin and chitosan: potential for in situ applications. Biomaterials, 2003, 24, 2831-2841.	11.4	324
179	Enzymatic Methods for in Situ Cell Entrapment and Cell Release. Biomacromolecules, 2003, 4, 1558-1563.	5.4	73
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182	Grafting Renewable Chemicals to Functionalize Chitosan. ACS Symposium Series, 2002, , 231-242.	0.5	5
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