William E Bentley

List of Publications by Citations

334 papers	12,564 citations	56 h-index	92 g-index
353 ext. papers	14,046 ext. citations	6.9 avg, IF	6.37 L-index

#	Paper	IF	Citations
334	Biofabrication with chitosan. *Biomacromolecules*, **2005**, 6, 2881-94	6.9	593
333	Plasmid-encoded protein: the principal factor in the "metabolic burden" associated with recombinant bacteria. *Biotechnology and Bioengineering*, **1990**, 35, 668-81	4.9	422
332	Autoinducer 2 controls biofilm formation in Escherichia coli through a novel motility quorum-sensing regulator (MqsR, B3022). *Journal of Bacteriology*, **2006**, 188, 305-16	3.5	419
331	Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface. *Langmuir*, **2002**, 18, 8620-8625	4	242
330	DNA microarray-based identification of genes controlled by autoinducer 2-stimulated quorum sensing in Escherichia coli. *Journal of Bacteriology*, **2001**, 183, 5239-47	3.5	218
329	Engineered probiotic Escherichia coli can eliminate and prevent Pseudomonas aeruginosa gut infection in animal models. *Nature Communications*, **2017**, 8, 15028	17.4	205
328	Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface. *Langmuir*, **2003**, 19, 4058-4062	4	170
327	Integrating artificial with natural cells to translate chemical messages that direct E. coli behaviour. *Nature Communications*, **2014**, 5, 4012	17.4	167
326	Quorum sensing in Escherichia coli is signaled by AI-2/LsrR: effects on small RNA and biofilm architecture. *Journal of Bacteriology*, **2007**, 189, 6011-20	3.5	163
325	Enterohemorrhagic Escherichia coli biofilms are inhibited by 7-hydroxyindole and stimulated by isatin. *Applied and Environmental Microbiology*, **2007**, 73, 4100-9	4.8	156
324	Cyclic AMP (cAMP) and cAMP receptor protein influence both synthesis and uptake of extracellular autoinducer 2 in Escherichia coli. *Journal of Bacteriology*, **2005**, 187, 2066-76	3.5	147
323	Evanescent wave long-period fiber bragg grating as an immobilized antibody biosensor. *Analytical Chemistry*, **2000**, 72, 2895-900	7.8	138
322	Patterned assembly of genetically modified viral nanotemplates via nucleic acid hybridization. *Nano Letters*, **2005**, 5, 1931-6	11.5	136
321	In situ quantitative visualization and characterization of chitosan electrodeposition with paired sidewall electrodes. *Soft Matter*, **2010**, 6, 3177	3.6	130
320	Two-Way Chemical Communication between Artificial and Natural Cells. *ACS Central Science*, **2017**, 3, 117-123	16.8	128
319	From unicellular properties to multicellular behavior: bacteria quorum sensing circuitry and applications. *Current Opinion in Biotechnology*, **2008**, 19, 550-5	11.4	123
318	Global transcriptome analysis of Staphylococcus aureus response to hydrogen peroxide. *Journal of Bacteriology*, **2006**, 188, 1648-59	3.5	120

317	Monitoring GFP-operon fusion protein expression during high cell density cultivation of Escherichia coli using an on-line optical sensor **1999**, 65, 54-64		120
316	Quorum sensing and bacterial cross-talk in biotechnology. *Current Opinion in Biotechnology*, **2004**, 15, 495-502	11.4	119
315	luxS-dependent gene regulation in Escherichia coli K-12 revealed by genomic expression profiling. *Journal of Bacteriology*, **2005**, 187, 8350-60	3.5	113
314	Autonomous induction of recombinant proteins by minimally rewiring native quorum sensing regulon of E. coli. *Metabolic Engineering*, **2010**, 12, 291-7	9.7	110
313	Oxidation of benzene to phenol, catechol, and 1,2,3-trihydroxybenzene by toluene 4-monooxygenase of Pseudomonas mendocina KR1 and toluene 3-monooxygenase of Ralstonia pickettii PKO1. *Applied and Environmental Microbiology*, **2004**, 70, 3814-20	4.8	108
312	Observations of green fluorescent protein as a fusion partner in genetically engineered Escherichia coli: Monitoring protein expression and solubility. *Biotechnology and Bioengineering*, **2000**, 67, 565-574	4.9	102
311	Electroaddressing of Cell Populations by Co-Deposition with Calcium Alginate Hydrogels. *Advanced Functional Materials*, **2009**, 19, 2074-2080	15.6	101
310	Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template. *Langmuir*, **2003**, 19, 519-524	4	101
309	Effects of oxygen/glucose/glutamine feeding on insect cell baculovirus protein expression: a study on epoxide hydrolase production. *Biotechnology Progress*, **1993**, 9, 355-61	2.8	95
308	Indole cell signaling occurs primarily at low temperatures in Escherichia coli. *ISME Journal*, **2008**, 2, 1007-23	2.9	94
307	Biomimetic Approach to Confer Redox Activity to Thin Chitosan Films. *Advanced Functional Materials*, **2010**, 20, 2683-2694	15.6	93
306	Nature-Inspired Creation of Protein–Polysaccharide Conjugate and Its Subsequent Assembly onto a Patterned Surface. *Langmuir*, **2003**, 19, 9382-9386	4	92
305	Electronic control of gene expression and cell behaviour in Escherichia coli through redox signalling. *Nature Communications*, **2017**, 8, 14030	17.4	88
304	Developing next generation antimicrobials by intercepting AI-2 mediated quorum sensing. *Enzyme and Microbial Technology*, **2011**, 49, 113-23	3.8	88
303	Green fluorescent protein as a real time quantitative reporter of heterologous protein production. *Biotechnology Progress*, **1998**, 14, 351-4	2.8	87
302	Mechanism of anodic electrodeposition of calcium alginate. *Soft Matter*, **2011**, 7, 5677	3.6	86
301	Mapping stress-induced changes in autoinducer AI-2 production in chemostat-cultivated Escherichia coli K-12. *Journal of Bacteriology*, **2001**, 183, 2918-28	3.5	86
300	Cross species quorum quenching using a native AI-2 processing enzyme. *ACS Chemical Biology*, **2010**, 5, 223-32	4.9	79

299	Engineered biological nanofactories trigger quorum sensing response in targeted bacteria. *Nature Nanotechnology*, **2010**, 5, 213-7	28.7	78
298	Amplified and in situ detection of redox-active metabolite using a biobased redox capacitor. *Analytical Chemistry*, **2013**, 85, 2102-8	7.8	75
297	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. *Polymers*, **2015**, 7, 1-46	4.5	74
296	Biofabrication to build the biology-device interface. *Biofabrication*, **2010**, 2, 022002	10.5	73
295	Coupling electrodeposition with layer-by-layer assembly to address proteins within microfluidic channels. *Advanced Materials*, **2011**, 23, 5817-21	24	71
294	AI-2 analogs and antibiotics: a synergistic approach to reduce bacterial biofilms. *Applied Microbiology and Biotechnology*, **2013**, 97, 2627-38	5.7	70
293	Altering toluene 4-monooxygenase by active-site engineering for the synthesis of 3-methoxycatechol, methoxyhydroquinone, and methylhydroquinone. *Journal of Bacteriology*, **2004**, 186, 4705-13	3.5	70
292	Simplification of titer determination for recombinant baculovirus by green fluorescent protein marker. *BioTechniques*, **1997**, 23, 782-4, 786	2.5	69
291	Green fluorescent protein in Saccharomyces cerevisiae: real-time studies of the GAL1 promoter. *Biotechnology and Bioengineering*, **2000**, 70, 187-96	4.9	69
290	A novel structured kinetic modeling approach for the analysis of plasmid instability in recombinant bacterial cultures. *Biotechnology and Bioengineering*, **1989**, 33, 49-61	4.9	69
289	Electrodeposition of a biopolymeric hydrogel: potential for one-step protein electroaddressing. *Biomacromolecules*, **2012**, 13, 1181-9	6.9	68
288	Combinatorial screening for enzyme-mediated coupling. Tyrosinase-catalyzed coupling to create protein--chitosan conjugates. *Biomacromolecules*, **2001**, 2, 456-62	6.9	68
287	Enzymatic methods for in situ cell entrapment and cell release. *Biomacromolecules*, **2003**, 4, 1558-63	6.9	66
286	Green fluorescent protein as a noninvasive stress probe in resting Escherichia coli cells. *Applied and Environmental Microbiology*, **1999**, 65, 409-14	4.8	64
285	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. *Lab on A Chip*, **2006**, 6, 1315-21	7.2	63
284	Response dynamics of 26-, 34-, 39-, 54-, and 80-kDa proteases in induced cultures of recombinant Escherichia coli. *Biotechnology and Bioengineering*, **1993**, 42, 675-85	4.9	63
283	Redox-capacitor to connect electrochemistry to redox-biology. *Analyst, The*, **2014**, 139, 32-43	5	60
282	Synthetic analogs tailor native AI-2 signaling across bacterial species. *Journal of the American Chemical Society*, **2010**, 132, 11141-50	16.4	59

281	Redox Capacitor to Establish Bio-Device Redox-Connectivity. *Advanced Functional Materials*, **2012**, 22, 1409-1416	15.6	58
280	Dynamics of induced CAT expression in E. coli. *Biotechnology and Bioengineering*, **1991**, 38, 749-60	4.9	58
279	Autonomous bacterial localization and gene expression based on nearby cell receptor density. *Molecular Systems Biology*, **2013**, 9, 636	12.2	56
278	Biocompatible multi-address 3D cell assembly in microfluidic devices using spatially programmable gel formation. *Lab on A Chip*, **2011**, 11, 2316-8	7.2	56
277	Quorum signaling via AI-2 communicates the "Metabolic Burden" associated with heterologous protein production in Escherichia coli. *Biotechnology and Bioengineering*, **2001**, 75, 439-50	4.9	55
276	Comparative global transcription analysis of sodium hypochlorite, peracetic acid, and hydrogen peroxide on Pseudomonas aeruginosa. *Applied Microbiology and Biotechnology*, **2007**, 76, 1093-105	5.7	53
275	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. *Advanced Functional Materials*, **2012**, 22, 519-528	15.6	52
274	Context-dependent redox properties of natural phenolic materials. *Biomacromolecules*, **2014**, 15, 1653-62	6.9	51
273	Electrodeposition of a weak polyelectrolyte hydrogel: remarkable effects of salt on kinetics, structure and properties. *Soft Matter*, **2013**, 9, 2703	3.6	51
272	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuli-Responsive Materials. *Advanced Functional Materials*, **2012**, 22, 3004-3012	15.6	50
271	In situ generation of pH gradients in microfluidic devices for biofabrication of freestanding, semi-permeable chitosan membranes. *Lab on A Chip*, **2010**, 10, 59-65	7.2	50
270	On-line green fluorescent protein sensor with LED excitation. *Biotechnology and Bioengineering*, **1997**, 55, 921-6	4.9	50
269	A robust technique for assembly of nucleic acid hybridization chips based on electrochemically templated chitosan. *Analytical Chemistry*, **2004**, 76, 365-72	7.8	50
268	Expression and purification of human interleukin-2 simplified as a fusion with green fluorescent protein in suspended Sf-9 insect cells. *Journal of Biotechnology*, **1999**, 69, 9-17	3.7	50
267	Bacterial co-culture with cell signaling translator and growth controller modules for autonomously regulated culture composition. *Nature Communications*, **2019**, 10, 4129	17.4	49
266	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. *Lab on A Chip*, **2008**, 8, 420-30	7.2	49
265	A kinetic and statistical-thermodynamic model for baculovirus infection and virus-like particle assembly in suspended insect cells. *Chemical Engineering Science*, **2000**, 55, 3991-4008	4.4	49
264	Redox-cycling and H2O2 generation by fabricated catecholic films in the absence of enzymes. *Biomacromolecules*, **2011**, 12, 880-8	6.9	48

263	Beyond silencing--engineering applications of RNA interference and antisense technology for altering cellular phenotype. *Current Opinion in Biotechnology*, **2008**, 19, 500-5	11.4	48
262	Tyrosine-based "activatable pro-tag": enzyme-catalyzed protein capture and release. *Biotechnology and Bioengineering*, **2006**, 93, 1207-15	4.9	47
261	Enhancement of recombinant protein synthesis and stability via coordinated amino acid addition. *Biotechnology and Bioengineering*, **1993**, 41, 557-65	4.9	47
260	Bacterial secretions of nonpathogenic Escherichia coli elicit inflammatory pathways: a closer investigation of interkingdom signaling. *MBio*, **2015**, 6, e00025	7.8	46
259	Protein engineering of toluene 4-monooxygenase of Pseudomonas mendocina KR1 for synthesizing 4-nitrocatechol from nitrobenzene. *Biotechnology and Bioengineering*, **2004**, 87, 779-90	4.9	46
258	Materials science. Nature's other self-assemblers. *Science*, **2013**, 341, 136-7	33.3	45
257	An ALD aluminum oxide passivated Surface Acoustic Wave sensor for early biofilm detection. *Sensors and Actuators B: Chemical*, **2012**, 163, 136-145	8.5	44
256	Expression of epoxide hydrolase in insect cells: a focus on the infected cell. *Biotechnology and Bioengineering*, **1993**, 42, 240-6	4.9	44
255	Electronic modulation of biochemical signal generation. *Nature Nanotechnology*, **2014**, 9, 605-10	28.7	43
254	A stochastic model of Escherichia coli AI-2 quorum signal circuit reveals alternative synthesis pathways. *Molecular Systems Biology*, **2006**, 2, 67	12.2	43
253	Insect larval expression process is optimized by generating fusions with green fluorescent protein. *Biotechnology and Bioengineering*, **1999**, 65, 316-24	4.9	43
252	A microfluidic-based electrochemical biochip for label-free diffusion-restricted DNA hybridization analysis. *Biosensors and Bioelectronics*, **2012**, 38, 114-20	11.8	42
251	Biomimetic fabrication of information-rich phenolic-chitosan films. *Soft Matter*, **2011**, 7, 9601	3.6	42
250	Chitosan-coated wires: conferring electrical properties to chitosan fibers. *Biomacromolecules*, **2009**, 10, 858-64	6.9	42
249	Toxicogenomic analysis of sodium hypochlorite antimicrobial mechanisms in Pseudomonas aeruginosa. *Applied Microbiology and Biotechnology*, **2007**, 74, 176-85	5.7	42
248	Signal-directed sequential assembly of biomolecules on patterned surfaces. *Langmuir*, **2005**, 21, 2104-7	4	42
247	Effect of MOI ratio on the composition and yield of chimeric infectious bursal disease virus-like particles by baculovirus co-infection: deterministic predictions and experimental results. *Biotechnology and Bioengineering*, **2001**, 75, 104-19	4.9	42
246	Altering the communication networks of multispecies microbial systems using a diverse toolbox of AI-2 analogues. *ACS Chemical Biology*, **2012**, 7, 1023-30	4.9	41

245	Investigation of subpopulation heterogeneity and plasmid stability in recombinant escherichia coli via a simple segregated model. *Biotechnology and Bioengineering*, **1993**, 42, 222-34	4.9	41
244	Reverse Engineering Applied to Red Human Hair Pheomelanin Reveals Redox-Buffering as a Pro-Oxidant Mechanism. *Scientific Reports*, **2015**, 5, 18447	4.9	40
243	Expression of green fluorescent protein in insect larvae and its application for heterologous protein production. *Biotechnology and Bioengineering*, **1997**, 56, 239-47	4.9	40
242	Mechano-transduction of DNA hybridization and dopamine oxidation through electrodeposited chitosan network. *Lab on A Chip*, **2007**, 7, 103-11	7.2	40
241	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. *Biomaterials*, **2012**, 33, 5136-43	15.6	39
240	Fed-batch feeding and induction policies that improve foreign protein synthesis and stability by avoiding stress responses. *Biotechnology and Bioengineering*, **1995**, 47, 596-608	4.9	39
239	An integrated metabolic modeling approach to describe the energy efficiency of Escherichia coli fermentations under oxygen-limited conditions: Cellular energetics, carbon flux, and acetate production. *Biotechnology and Bioengineering*, **1993**, 42, 843-53	4.9	39
238	Reverse engineering to suggest biologically relevant redox activities of phenolic materials. *ACS Chemical Biology*, **2013**, 8, 716-24	4.9	38
237	Reagentless Protein Assembly Triggered by Localized Electrical Signals. *Advanced Materials*, **2009**, 21, 984-988	24	38
236	Compartmentalized multilayer hydrogel formation using a stimulus-responsive self-assembling polysaccharide. *ACS Applied Materials & Interfaces*, **2014**, 6, 2948-57	9.5	37
235	A new design for an artificial cell: polymer microcapsules with addressable inner compartments that can harbor biomolecules, colloids or microbial species. *Chemical Science*, **2017**, 8, 6893-6903	9.4	37
234	A controlled microfluidic electrochemical lab-on-a-chip for label-free diffusion-restricted DNA hybridization analysis. *Biosensors and Bioelectronics*, **2015**, 64, 579-85	11.8	36
233	Electro-molecular Assembly: Electrical Writing of Information into an Erasable Polysaccharide Medium. *ACS Applied Materials & Interfaces*, **2016**, 8, 19780-6	9.5	36
232	Microfluidic electrochemical sensor array for characterizing protein interactions with various functionalized surfaces. *Analytical Chemistry*, **2011**, 83, 5920-7	7.8	36
231	Development and validation of a microfluidic reactor for biofilm monitoring via optical methods. *Journal of Micromechanics and Microengineering*, **2011**, 21, 054023	2	36
230	Directed assembly of a bacterial quorum. *ISME Journal*, **2016**, 10, 158-69	11.9	35
229	Encapsulated fusion protein confers "sense and respond" activity to chitosan-alginate capsules to manipulate bacterial quorum sensing. *Biotechnology and Bioengineering*, **2013**, 110, 552-62	4.9	35
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227	Heat-shock and stringent responses have overlapping protease activity in Escherichia coli. Implications for heterologous protein yield. *Applied Biochemistry and Biotechnology*, **1999**, 80, 23-37	3.2	35
226	Evidence of link between quorum sensing and sugar metabolism in revealed via cocrystal structures of LsrK and HPr. *Science Advances*, **2018**, 4, eaar7063	14.3	35
225	Electrochemical Measurement of the Galactosidase Reporter from Live Cells: A Comparison to the Miller Assay. *ACS Synthetic Biology*, **2016**, 5, 28-35	5.7	34
224	Reversible Electroaddressing of Self-assembling Amino-Acid Conjugates. *Advanced Functional Materials*, **2011**, 21, 1575-1580	15.6	34
223	Global transcriptomic response of Pseudomonas aeruginosa to chlorhexidine diacetate. *Environmental Science & Technology*, **2009**, 43, 8406-15	10.3	34
222	Toxicogenomic response of Staphylococcus aureus to peracetic acid. *Environmental Science & Technology*, **2006**, 40, 5124-31	10.3	34
221	Framework for online optimization of recombinant protein expression in high-cell-density Escherichia coli cultures using GFP-fusion monitoring. *Biotechnology and Bioengineering*, **2000**, 69, 275-85	4.9	34
220	Quantitative measurement of green fluorescent protein expression. *Biotechnology Letters*, **1996**, 10, 953		34
219	Optically clear alginate hydrogels for spatially controlled cell entrapment and culture at microfluidic electrode surfaces. *Lab on A Chip*, **2013**, 13, 1854-8	7.2	33
218	Microarray analysis of toxicogenomic effects of peracetic acid on Pseudomonas aeruginosa. *Environmental Science & Technology*, **2005**, 39, 5893-9	10.3	33
217	Spectroelectrochemical Reverse Engineering DemonstratesThat Melanin's Redox and Radical Scavenging Activities Are Linked. *Biomacromolecules*, **2017**, 18, 4084-4098	6.9	32
216	Synthetic Biology for Manipulating Quorum Sensing in Microbial Consortia. *Trends in Microbiology*, **2020**, 28, 633-643	12.4	32
215	Using a Redox Modality to Connect Synthetic Biology to Electronics: Hydrogel-Based Chemo-Electro Signal Transduction for Molecular Communication. *Advanced Healthcare Materials*, **2017**, 6, 1600908	10.1	32
214	In-Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuli-Responsive Polysaccharides. *Advanced Functional Materials*, **2010**, 20, 1645-1652	15.6	32
213	Electrical Programming of Soft Matter: Using Temporally Varying Electrical Inputs To Spatially Control Self Assembly. *Biomacromolecules*, **2018**, 19, 364-373	6.9	32
212	Biological nanofactories facilitate spatially selective capture and manipulation of quorum sensing bacteria in a bioMEMS device. *Lab on A Chip*, **2010**, 10, 1128-34	7.2	31
211	Microbial nar-GFP cell sensors reveal oxygen limitations in highly agitated and aerated laboratory-scale fermentors. *Microbial Cell Factories*, **2009**, 8, 6	6.4	31
210	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion pro-tag. *Biotechnology and Bioengineering*, **2008**, 99, 499-507	4.9	31

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208	Quantitative and kinetic study of oxidative stress regulons using green fluorescent protein. *Biotechnology and Bioengineering*, **2005**, 89, 574-87	4.9	31
207	Effect of electrical energy on the efficacy of biofilm treatment using the bioelectric effect. *Npj Biofilms and Microbiomes*, **2015**, 1, 15016	8.2	30
206	Accessing biology's toolbox for the mesoscale biofabrication of soft matter. *Soft Matter*, **2013**, 9, 6019	3.6	30
205	Effects on membrane lateral pressure suggest permeation mechanisms for bacterial quorum signaling molecules. *Biochemistry*, **2011**, 50, 6983-93	3.2	30
204	Diffusion of interleukin-2 from cells overlaid with cytocompatible enzyme-crosslinked gelatin hydrogels. *Journal of Biomedical Materials Research - Part A*, **2010**, 95, 25-32	5.4	30
203	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	14.8	30
202	Redox Probing for Chemical Information of Oxidative Stress. *Analytical Chemistry*, **2017**, 89, 1583-1592	7.8	29
201	Programmable Electrofabrication of Porous Janus Films with Tunable Janus Balance for Anisotropic Cell Guidance and Tissue Regeneration. *Advanced Functional Materials*, **2019**, 29, 1900065	15.6	29
200	A surface acoustic wave biofilm sensor integrated with a treatment method based on the bioelectric effect. *Sensors and Actuators A: Physical*, **2016**, 238, 140-149	3.9	29
199	Information processing through a bio-based redox capacitor: signatures for redox-cycling. *Bioelectrochemistry*, **2014**, 98, 94-102	5.6	29
198	Biofabrication of antibodies and antigens via IgG-binding domain engineered with activatable pentatyrosine pro-tag. *Biotechnology and Bioengineering*, **2009**, 103, 231-40	4.9	29
197	Orthogonal enzymatic reactions for the assembly of proteins at electrode addresses. *Langmuir*, **2009**, 25, 338-44	4	29
196	Differential rates of gene expression monitored by green fluorescent protein. *Biotechnology and Bioengineering*, **2002**, 79, 429-37	4.9	29
195	Chimeric infectious bursal disease virus-like particles expressed in insect cells and purified by immobilized metal affinity chromatography. *Biotechnology and Bioengineering*, **1999**, 63, 721-9	4.9	29
194	AI-2 biosynthesis module in a magnetic nanofactory alters bacterial response via localized synthesis and delivery. *Biotechnology and Bioengineering*, **2009**, 102, 390-9	4.9	28
193	Generating controlled reducing environments in aerobic recombinant Escherichia coli fermentations: Effects on cell growth, oxygen uptake, heat shock protein expression, and in vivo CAT activity **1998**, 59, 248-259		28
192	Quorum Sensing Communication: Molecularly Connecting Cells, Their Neighbors, and Even Devices. *Annual Review of Chemical and Biomolecular Engineering*, **2020**, 11, 447-468	8.9	27

191	Glucose oxidase-mediated gelation: a simple test to detect glucose in food products. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 8963-7	5.7	27
190	Chitosan scaffolds for biomolecular assembly: coupling nucleic acid probes for detecting hybridization. *Biotechnology and Bioengineering*, **2003**, 83, 646-52	4.9	27
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187	Distal modulation of bacterial cell-cell signalling in a synthetic ecosystem using partitioned microfluidics. *Lab on A Chip*, **2015**, 15, 1842-51	7.2	26
186	Magnetic nanofactories: localized synthesis and delivery of quorum-sensing signaling molecule autoinducer-2 to bacterial cell surfaces. *Metabolic Engineering*, **2007**, 9, 228-39	9.7	26
185	A high-throughput approach to promoter study using green fluorescent protein. *Biotechnology Progress*, **2004**, 20, 1634-40	2.8	26
184	Impediments to secretion of green fluorescent protein and its fusion from Saccharomyces cerevisiae. *Biotechnology Progress*, **2002**, 18, 831-8	2.8	26
183	Enhancement of organophosphorus hydrolase yield in Escherichia coli using multiple gene fusions. *Biotechnology and Bioengineering*, **2001**, 75, 100-3	4.9	26
182	Purification of a recombinant protein produced in a baculovirus expression system by immobilized metal affinity chromatography. *Biotechnology and Bioengineering*, **1994**, 43, 349-56	4.9	26
181	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	7.8	25
180	Nano-guided cell networks as conveyors of molecular communication. *Nature Communications*, **2015**, 6, 8500	17.4	25
179	Microarray analysis of toxicogenomic effects of triclosan on Staphylococcus aureus. *Applied Microbiology and Biotechnology*, **2008**, 78, 695-707	5.7	25
178	A recombinant lipoprotein antigen against Lyme disease expressed in E. coli: fermentor operating strategies for improved yield. *Biotechnology Progress*, **2000**, 16, 571-6	2.8	25
177	Antisense downregulation of sigma(32) as a transient metabolic controller in Escherichia coli: effects on yield of active organophosphorus hydrolase. *Applied and Environmental Microbiology*, **2000**, 66, 4366-71	4.8	25
176	Human interleukin-2 production in insect (Trichoplusia ni) larvae: effects and partial control of proteolysis. *Biotechnology and Bioengineering*, **1999**, 62, 175-82	4.9	25
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174	Electrobiofabrication: electrically based fabrication with biologically derived materials. *Biofabrication*, **2019**, 11, 032002	10.5	25

173	Connecting Biology to Electronics: Molecular Communication via Redox Modality. *Advanced Healthcare Materials*, **2017**, 6, 1700789	10.1	24
172	Site-specific immobilization of endoglycosidases for streamlined chemoenzymatic glycan remodeling of antibodies. *Carbohydrate Research*, **2018**, 458-459, 77-84	2.9	24
171	Electrochemical Fabrication of Functional Gelatin-Based Bioelectronic Interface. *Biomacromolecules* , **2016**, 17, 558-63	6.9	24
170	A fabrication platform for electrically mediated optically active biofunctionalized sites in BioMEMS. *Lab on A Chip*, **2005**, 5, 583-6	7.2	24
169	Production of recombinant proteins by vaccinia virus in a microcarrier based mammalian cell perfusion bioreactor. *Biotechnology and Bioengineering*, **2005**, 90, 663-74	4.9	24
168	Enhancing yield of infectious Bursal disease virus structural proteins in baculovirus expression systems: focus on media, protease inhibitors, and dissolved oxygen. *Biotechnology Progress*, **1999**, 15, 1065-71	2.8	24
167	Radical Scavenging Activities of Biomimetic Catechol-Chitosan Films. *Biomacromolecules*, **2018**, 19, 3502-3514	6.9	24
166	A redox-based electrogenetic CRISPR system to connect with and control biological information networks. *Nature Communications*, **2020**, 11, 2427	17.4	23
165	Colloidal Properties of Nanoerythrosomes Derived from Bovine Red Blood Cells. *Langmuir*, **2016**, 32, 171-9	4	23
164	Investigating apoptosis: characterization and analysis of Trichoplusia ni-caspase-1 through overexpression and RNAi mediated silencing. *Insect Biochemistry and Molecular Biology*, **2009**, 39, 113-24	4.5	23
163	Chitosan biotinylation and electrodeposition for selective protein assembly. *Macromolecular Bioscience*, **2008**, 8, 451-7	5.5	23
162	Thermo-biolithography: a technique for patterning nucleic acids and proteins. *Langmuir*, **2004**, 20, 906-13	4	23
161	Electrochemical Probing through a Redox Capacitor To Acquire Chemical Information on Biothiols. *Analytical Chemistry*, **2016**, 88, 7213-21	7.8	23
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159	Gene network homology in prokaryotes using a similarity search approach: queries of quorum sensing signal transduction. *PLoS Computational Biology*, **2012**, 8, e1002637	5	22
158	Biofabrication with biopolymers and enzymes: potential for constructing scaffolds from soft matter. *International Journal of Artificial Organs*, **2011**, 34, 215-24	1.9	22
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156	GFP-visualized immobilized enzymes: degradation of paraoxon via organophosphorus hydrolase in a packed column. *Biotechnology and Bioengineering*, **2002**, 77, 212-8	4.9	22

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