Caroline M Ajo-Franklin

List of Publications by Year in Descending Order

48 papers	2,283 citations	23 h-index	47 g-index
59 ext. papers	2,831 ext. citations	10.6 avg, IF	5.11 L-index

#	Paper	IF	Citations
48	Solution-Deposited and Patternable Conductive Polymer Thin Film Electrodes for Microbial Bioelectronics.. *Advanced Materials*, **2022**, e2109442	24	1
47	Extracellular electron transfer increases fermentation in lactic acid bacteria via a hybrid metabolism.. *ELife*, **2022**, 11,	8.9	3
46	Electronic control of redox reactions inside Escherichia coli using a genetic module. *PLoS ONE*, **2021**, 16, e0258380	3.7	1
45	Engineering Wired Life: Synthetic Biology for Electroactive Bacteria. *ACS Synthetic Biology*, **2021**, 10, 2808-2823	5.7	6
44	Bottom-up approaches to engineered living materials: Challenges and future directions. *Matter*, **2021**, 4, 3095-3120	12.7	1
43	Controlled and Stable Patterning of Diverse Inorganic Nanocrystals on Crystalline Two-Dimensional Protein Arrays. *Biochemistry*, **2021**, 60, 1063-1074	3.2	3
42	A CMOS Multi-Modal Electrochemical and Impedance Cellular Sensing Array for Massively Paralleled Exoelectrogen Screening. *IEEE Transactions on Biomedical Circuits and Systems*, **2021**, 15, 221-234	5.1	4
41	Engineering High-Yield Biopolymer Secretion Creates an Extracellular Protein Matrix for Living Materials. *MSystems*, **2021**, 6,	7.6	5
40	A hybrid cyt c maturation system enhances the bioelectrical performance of engineered Escherichia coli by improving the rate-limiting step. *Biosensors and Bioelectronics*, **2020**, 165, 112312	11.8	5
39	Modifying Cytochrome Maturation Can Increase the Bioelectronic Performance of Engineered. *ACS Synthetic Biology*, **2020**, 9, 115-124	5.7	20
38	Programmable assembly of 2D crystalline protein arrays into covalently stacked 3D bionanomaterials. *Biotechnology and Bioengineering*, **2020**, 117, 912-923	4.9	10
37	28.4 A CMOS Multimodality In-Pixel Electrochemical and Impedance Cellular Sensing Array for Massively Paralleled Synthetic Exoelectrogen Characterization **2020**,		3
36	Reaching full potential: bioelectrochemical systems for storing renewable energy in chemical bonds. *Current Opinion in Biotechnology*, **2019**, 57, 66-72	11.4	25
35	An elusive electron shuttle from a facultative anaerobe. *ELife*, **2019**, 8,	8.9	28
34	Engineering the S-Layer of Caulobacter crescentus as a Foundation for Stable, High-Density, 2D Living Materials. *ACS Synthetic Biology*, **2019**, 8, 181-190	5.7	29
33	Nanoscale membranes that chemically isolate and electronically wire up the abiotic/biotic interface. *Nature Communications*, **2018**, 9, 2263	17.4	19
32	Towards patterned bioelectronics: facilitated immobilization of exoelectrogenic Escherichia coli with heterologous pili. *Microbial Biotechnology*, **2018**, 11, 1184-1194	6.3	14

31	PEDOT:PSS-based Multilayer Bacterial-Composite Films for Bioelectronics. *Scientific Reports*, **2018**, 8, 15293	4.9	46
30	A flavin-based extracellular electron transfer mechanism in diverse Gram-positive bacteria. *Nature*, **2018**, 562, 140-144	50.4	238
29	High pCO-induced exopolysaccharide-rich ballasted aggregates of planktonic cyanobacteria could explain Paleoproterozoic carbon burial. *Nature Communications*, **2018**, 9, 2116	17.4	13
28	A portable bioelectronic sensing system (BESSY) for environmental deployment incorporating differential microbial sensing in miniaturized reactors. *PLoS ONE*, **2017**, 12, e0184994	3.7	15
27	The Molecular Basis for Binding of an Electron Transfer Protein to a Metal Oxide Surface. *Journal of the American Chemical Society*, **2017**, 139, 12647-12654	16.4	21
26	Transforming exoelectrogens for biotechnology using synthetic biology. *Biotechnology and Bioengineering*, **2016**, 113, 687-97	4.9	108
25	CymA and Exogenous Flavins Improve Extracellular Electron Transfer and Couple It to Cell Growth in Mtr-Expressing Escherichia coli. *ACS Synthetic Biology*, **2016**, 5, 679-88	5.7	64
24	Recovery of critical metals using biometallurgy. *Current Opinion in Biotechnology*, **2015**, 33, 327-35	11.4	124
23	Ion-specific control of the self-assembly dynamics of a nanostructured protein lattice. *ACS Nano*, **2015**, 9, 180-90	16.7	33
22	Bioelectronic light-gated transistors with biologically tunable performance. *Advanced Materials*, **2015**, 27, 831-6	24	21
21	Crossing Over: Nanostructures that Move Electrons and Ions across Cellular Membranes. *Advanced Materials*, **2015**, 27, 5797-804	24	23
20	Osmotically-driven transport in carbon nanotube porins. *Nano Letters*, **2014**, 14, 7051-6	11.5	28
19	Stochastic transport through carbon nanotubes in lipid bilayers and live cell membranes. *Nature*, **2014**, 514, 612-5	50.4	291
18	Faster-than-anticipated Na(+)/Cl(-) diffusion across lipid bilayers in vesicles. *Biochimica Et Biophysica Acta - Biomembranes*, **2014**, 1838, 2420-4	3.8	6
17	The Mtr Pathway of Shewanella oneidensis MR-1 Couples Substrate Utilization to Current Production in Escherichia coli. *ChemElectroChem*, **2014**, 1, 1874-1879	4.3	59
16	The Mtr Pathway of Shewanella oneidensis MR-1 Couples Substrate Utilization to Current Production in Escherichia coli. *ChemElectroChem*, **2014**, 1, 1701-1701	4.3	
15	Lipid bilayer composition can influence the orientation of proteorhodopsin in artificial membranes. *Biophysical Journal*, **2013**, 105, 1388-96	2.9	46
14	Tuning promoter strengths for improved synthesis and function of electron conduits in Escherichia coli. *ACS Synthetic Biology*, **2013**, 2, 150-9	5.7	65

13	Nanopore-spanning lipid bilayers on silicon nitride membranes that seal and selectively transport ions. *Langmuir*, **2013**, 29, 4421-5	4	26
12	Cyanobacteria as Biocatalysts for Carbonate Mineralization. *Minerals (Basel, Switzerland)*, **2012**, 2, 338-364	2.4	83
11	Dual-emitting quantum dot/quantum rod-based nanothermometers with enhanced response and sensitivity in live cells. *Journal of the American Chemical Society*, **2012**, 134, 9565-8	16.4	154
10	A synthetic circuit for selectively arresting daughter cells to create aging populations. *Nucleic Acids Research*, **2010**, 38, 2727-35	20.1	15
9	Engineering of a synthetic electron conduit in living cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19213-8	11.5	188
8	Caged quantum dots. *Journal of the American Chemical Society*, **2008**, 130, 15811-3	16.4	71
7	Rational design of memory in eukaryotic cells. *Genes and Development*, **2007**, 21, 2271-6	12.6	190
6	Probing the structure of supported membranes and tethered oligonucleotides by fluorescence interference contrast microscopy. *Langmuir*, **2005**, 21, 4976-83	4	59
5	Variable incidence angle fluorescence interference contrast microscopy for z-imaging single objects. *Biophysical Journal*, **2005**, 89, 2759-69	2.9	27
4	Patterned supported lipid bilayers and monolayers on poly(dimethylsiloxane). *Langmuir*, **2004**, 20, 11092-9	4	83
3	Precise electronic control of redox reactions inside Escherichia coli using a genetic module		3
2	Engineering high-yield biopolymer secretion creates an extracellular protein matrix for living materials		1
1	Extracellular electron transfer increases fermentation in lactic acid bacteria via a hybrid metabolism		1