Hsuan-Chen Wu

List of Publications by Year in Descending Order

47 papers	1,323 citations	22 h-index	36 g-index
49 ext. papers	1,510 ext. citations	7.4 avg, IF	4.11 L-index

#	Paper	IF	Citations
47	Bioelectronic control of a microbial community using surface-assembled electrogenetic cells to route signals. *Nature Nanotechnology*, **2021**, 16, 688-697	28.7	14
46	Localized Proteolysis for the Construction of Intracellular Asymmetry in. *ACS Synthetic Biology*, **2021**, 10, 1830-1836	5.7	0
45	Hydrothermal Effect on Mechanical Properties of Spidroin. *Polymers*, **2020**, 12,	4.5	2
44	Biofabricating a Silk Scaffold as a Functional Microbial Trap. *ACS Biomaterials Science and Engineering*, **2020**, 6, 7041-7050	5.5	1
43	Electrospun Hydrophobic Polyaniline/Silk Fibroin Electrochromic Nanofibers with Low Electrical Resistance. *Polymers*, **2020**, 12,	4.5	12
42	Plasmid-encoded protein attenuates Escherichia coli swimming velocity and cell growth, not reprogrammed regulatory functions. *Biotechnology Progress*, **2019**, 35, e2778	2.8	2
41	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. *Bioconjugate Chemistry*, **2018**, 29, 1809-1822	6.3	8
40	A Facile Measurement for Monitoring Dragline Silk Dope Concentration in upon Spinning. *Materials*, **2018**, 11,	3.5	1
39	Engineering bacterial motility towards hydrogen-peroxide. *PLoS ONE*, **2018**, 13, e0196999	3.7	16
38	Electronic control of gene expression and cell behaviour in Escherichia coli through redox signalling. *Nature Communications*, **2017**, 8, 14030	17.4	88
37	A simple and reusable bilayer membrane-based microfluidic device for the study of gradient-mediated bacterial behaviors. *Biomicrofluidics*, **2017**, 11, 044114	3.2	5
36	Controlling localization of Escherichia coli populations using a two-part synthetic motility circuit: An accelerator and brake. *Biotechnology and Bioengineering*, **2017**, 114, 2883-2895	4.9	12
35	Conferring biological activity to native spider silk: A biofunctionalized protein-based microfiber. *Biotechnology and Bioengineering*, **2017**, 114, 83-95	4.9	17
34	Directed assembly of a bacterial quorum. *ISME Journal*, **2016**, 10, 158-69	11.9	35
33	Colloidal Properties of Nanoerythrosomes Derived from Bovine Red Blood Cells. *Langmuir*, **2016**, 32, 171-9	4	23
32	Tubular Bioreactor for Probing Baculovirus Infection and Protein Production. *Methods in Molecular Biology*, **2016**, 1350, 461-7	1.4	1
31	Gene Silencing in Insect Cells Using RNAi. *Methods in Molecular Biology*, **2016**, 1350, 469-76	1.4	3

30	Evaluating Baculovirus Infection Using Green Fluorescent Protein and Variants. *Methods in Molecular Biology*, **2016**, 1350, 447-59	1.4	
29	Quorum Sensing Desynchronization Leads to Bimodality and Patterned Behaviors. *PLoS Computational Biology*, **2016**, 12, e1004781	5	19
28	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
27	Functionalizing Soft Matter for Molecular Communication. *ACS Biomaterials Science and Engineering* , **2015**, 1, 320-328	5.5	21
26	Chitosan to Connect Biology to Electronics: Fabricating the Bio-Device Interface and Communicating Across This Interface. *Polymers*, **2015**, 7, 1-46	4.5	74
25	Rational design of acontroller cellsato manipulate protein and phenotype expression. *Metabolic Engineering*, **2015**, 30, 61-68	9.7	16
24	Nano-guided cell networks as conveyors of molecular communication. *Nature Communications*, **2015**, 6, 8500	17.4	25
23	Effect of electrical energy on the efficacy of biofilm treatment using the bioelectric effect. *Npj Biofilms and Microbiomes*, **2015**, 1, 15016	8.2	30
22	Evolved Quorum sensing regulator, LsrR, for altered switching functions. *ACS Synthetic Biology*, **2014**, 3, 210-9	5.7	22
21	Air bubble-initiated biofabrication of freestanding, semi-permeable biopolymer membranes in PDMS microfluidics. *Biochemical Engineering Journal*, **2014**, 89, 2-9	4.2	19
20	Tuning cell cycle of insect cells for enhanced protein production. *Journal of Biotechnology*, **2013**, 168, 55-61	3.7	7
19	Accessing biologyæs toolbox for the mesoscale biofabrication of soft matter. *Soft Matter*, **2013**, 9, 6019	3.6	30
18	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
17	Autonomous bacterial localization and gene expression based on nearby cell receptor density. *Molecular Systems Biology*, **2013**, 9, 636	12.2	56
16	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. *Biomaterials*, **2012**, 33, 5136-43	15.6	39
15	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
14	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. *Advanced Functional Materials*, **2012**, 22, 519-528	15.6	52
13	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuli-Responsive Materials. *Advanced Functional Materials*, **2012**, 22, 3004-3012	15.6	50

12	Integrated biofabrication for electro-addressed in-film bioprocessing. *Biotechnology Journal*, **2012**, 7, 428-39	5.6	10
11	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
10	Electroaddressing agarose using Fmoc-phenylalanine as a temporary scaffold. *Langmuir*, **2011**, 27, 7380-4	4	20
9	Engineered biological nanofactories trigger quorum sensing response in targeted bacteria. *Nature Nanotechnology*, **2010**, 5, 213-7	28.7	78
8	Autonomous induction of recombinant proteins by minimally rewiring native quorum sensing regulon of E. coli. *Metabolic Engineering*, **2010**, 12, 291-7	9.7	110
7	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
6	Chitosan fibers: versatile platform for nickel-mediated protein assembly. *Biomacromolecules*, **2008**, 9, 1417-23	6.9	17
5	Chitosan biotinylation and electrodeposition for selective protein assembly. *Macromolecular Bioscience*, **2008**, 8, 451-7	5.5	23
4	Fluorescence enhancement by surface gratings. *Optics Express*, **2006**, 14, 10825-30	3.3	76
3	Fluorescence enhancement by surface gratings **2006**,		1
2	Giant wood spider Nephila pilipes alters silk protein in response to prey variation. *Journal of Experimental Biology*, **2005**, 208, 1053-61	3	72
1	Lattice deformation and thermal stability of crystals in spider silk. *International Journal of Biological Macromolecules*, **2004**, 34, 325-31	7.9	28