

Chen-Yu Tsao

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,766
citations

257450

24
h-index

276875

41
g-index

52
all docs

52
docs citations

52
times ranked

1702
citing authors

#	ARTICLE	IF	CITATIONS
1	Cyclic AMP (cAMP) and cAMP Receptor Protein Influence both Synthesis and Uptake of Extracellular Autoinducer 2 in Escherichia coli. <i>Journal of Bacteriology</i> , 2005, 187, 2066-2076.	2.2	164
2	Autonomous induction of recombinant proteins by minimally rewiring native quorum sensing regulon of E. coli. <i>Metabolic Engineering</i> , 2010, 12, 291-297.	7.0	125
3	Electroaddressing of Cell Populations by Co-Deposition with Calcium Alginate Hydrogels. <i>Advanced Functional Materials</i> , 2009, 19, 2074-2080.	14.9	115
4	Cross Species Quorum Quenching Using a Native AI-2 Processing Enzyme. <i>ACS Chemical Biology</i> , 2010, 5, 223-232.	3.4	103
5	Bacterial co-culture with cell signaling translator and growth controller modules for autonomously regulated culture composition. <i>Nature Communications</i> , 2019, 10, 4129.	12.8	91
6	Biocompatible multi-address 3D cell assembly in microfluidic devices using spatially programmable gel formation. <i>Lab on A Chip</i> , 2011, 11, 2316.	6.0	68
7	Autonomous bacterial localization and gene expression based on nearby cell receptor density. <i>Molecular Systems Biology</i> , 2013, 9, 636.	7.2	65
8	Electroaddressing Functionalized Polysaccharides as Model Biofilms for Interrogating Cell Signaling. <i>Advanced Functional Materials</i> , 2012, 22, 519-528.	14.9	61
9	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuli-Responsive Materials. <i>Advanced Functional Materials</i> , 2012, 22, 3004-3012.	14.9	54
10	A stochastic model of Escherichia coli AI-2 quorum signal circuit reveals alternative synthesis pathways. <i>Molecular Systems Biology</i> , 2006, 2, 67.	7.2	53
11	Biofabrication of stratified biofilm mimics for observation and control of bacterial signaling. <i>Biomaterials</i> , 2012, 33, 5136-5143.	11.4	46
12	Directed assembly of a bacterial quorum. <i>ISME Journal</i> , 2016, 10, 158-169.	9.8	44
13	Electrochemical Measurement of the β -Galactosidase Reporter from Live Cells: A Comparison to the Miller Assay. <i>ACS Synthetic Biology</i> , 2016, 5, 28-35.	3.8	44
14	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.	7.6	44
15	Connecting Biology to Electronics: Molecular Communication via Redox Modality. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700789.	7.6	40
16	Optically clear alginate hydrogels for spatially controlled cell entrapment and culture at microfluidic electrode surfaces. <i>Lab on A Chip</i> , 2013, 13, 1854.	6.0	39
17	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.	6.0	35
18	Distal modulation of bacterial cell-cell signalling in a synthetic ecosystem using partitioned microfluidics. <i>Lab on A Chip</i> , 2015, 15, 1842-1851.	6.0	34

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19	Nano-guided cell networks as conveyors of molecular communication. <i>Nature Communications</i> , 2015, 6, 8500.	12.8	33
20	Engineering bacterial motility towards hydrogen-peroxide. <i>PLoS ONE</i> , 2018, 13, e0196999.	2.5	31
21	Magnetic nanofactories: Localized synthesis and delivery of quorum-sensing signaling molecule autoinducer-2 to bacterial cell surfaces. <i>Metabolic Engineering</i> , 2007, 9, 228-239.	7.0	30
22	Biofabrication of antibodies and antigens via IgG-binding domain engineered with activatable pentatyrosine pro- α -tag. <i>Biotechnology and Bioengineering</i> , 2009, 103, 231-240.	3.3	30
23	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.	7.8	29
24	Evolved Quorum Sensing Regulator, LsrR, for Altered Switching Functions. <i>ACS Synthetic Biology</i> , 2014, 3, 210-219.	3.8	28
25	Quorum Sensing Desynchronization Leads to Bimodality and Patterned Behaviors. <i>PLoS Computational Biology</i> , 2016, 12, e1004781.	3.2	26
26	Functionalizing Soft Matter for Molecular Communication. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 320-328.	5.2	24
27	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.	6.0	24
28	Biological Nanofactories Target and Activate Epithelial Cell Surfaces for Modulating Bacterial Quorum Sensing and Interspecies Signaling. <i>ACS Nano</i> , 2010, 4, 6923-6931.	14.6	21
29	Electrodeposition of a magnetic and redox-active chitosan film for capturing and sensing metabolic active bacteria. <i>Carbohydrate Polymers</i> , 2018, 195, 505-514.	10.2	21
30	Conferring biological activity to native spider silk: A biofunctionalized protein-based microfiber. <i>Biotechnology and Bioengineering</i> , 2017, 114, 83-95.	3.3	20
31	Chitosan Fibers: Versatile Platform for Nickel-Mediated Protein Assembly. <i>Biomacromolecules</i> , 2008, 9, 1417-1423.	5.4	19
32	Single-Step Synthesis of Alginate Microgels Enveloped with a Covalent Polymeric Shell: A Simple Way to Protect Encapsulated Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 18432-18442.	8.0	19
33	LuxS Coexpression Enhances Yields of Recombinant Proteins in <i>Escherichia coli</i> in Part through Posttranscriptional Control of GroEL. <i>Applied and Environmental Microbiology</i> , 2011, 77, 2141-2152.	3.1	18
34	Modular construction of multi-subunit protein complexes using engineered tags and microbial transglutaminase. <i>Metabolic Engineering</i> , 2016, 38, 1-9.	7.0	17
35	Mediated Electrochemistry to Mimic Biology's Oxidative Assembly of Functional Matrices. <i>Advanced Functional Materials</i> , 2020, 30, 2001776.	14.9	17
36	Catechol-chitosan redox capacitor for added amplification in electrochemical immunoanalysis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 169, 470-477.	5.0	15

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37	Biofabricating Functional Soft Matter Using Protein Engineering to Enable Enzymatic Assembly. <i>Bioconjugate Chemistry</i> , 2018, 29, 1809-1822.	3.6	14
38	Coupling Self-Assembly Mechanisms to Fabricate Molecularly and Electrically Responsive Films. <i>Biomacromolecules</i> , 2019, 20, 969-978.	5.4	14
39	Interactive Materials for Bidirectional Redox-Based Communication. <i>Advanced Materials</i> , 2021, 33, e2007758.	21.0	14
40	Integrated biofabrication for electro-addressed in-film bioprocessing. <i>Biotechnology Journal</i> , 2012, 7, 428-439.	3.5	13
41	Incorporating LsrK Al-quorum quenching capability in a functionalized biopolymer capsule. <i>Biotechnology and Bioengineering</i> , 2018, 115, 278-289.	3.3	12
42	Development of the quorum sensing biotechnological toolbox. <i>Current Opinion in Chemical Engineering</i> , 2012, 1, 396-402.	7.8	11
43	Simple, rapidly electroassembled thiolated PEG-based sensor interfaces enable rapid interrogation of antibody titer and glycosylation. <i>Biotechnology and Bioengineering</i> , 2021, 118, 2744-2758.	3.3	8
44	Focusing quorum sensing signalling by nano-magnetic assembly. <i>Environmental Microbiology</i> , 2018, 20, 2585-2597.	3.8	7
45	A simple and reusable bilayer membrane-based microfluidic device for the study of gradient-mediated bacterial behaviors. <i>Biomicrofluidics</i> , 2017, 11, 044114.	2.4	6
46	An immune magnetic nano-assembly for specifically amplifying intercellular quorum sensing signals. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 172, 197-206.	5.0	6
47	A Redox-Based Autoinduction Strategy to Facilitate Expression of 5xCys-Tagged Proteins for Electrobiofabrication. <i>Frontiers in Microbiology</i> , 2021, 12, 675729.	3.5	5
48	Parsed synthesis of pyocyanin via co-culture enables context-dependent intercellular redox communication. <i>Microbial Cell Factories</i> , 2021, 20, 215.	4.0	5
49	Data on biochemical fluxes generated from biofabricated enzyme complexes assembled through engineered tags and microbial transglutaminase. <i>Data in Brief</i> , 2016, 8, 1031-1035.	1.0	4
50	Construction of a cell-based sensor for the detection of autoinducer-2. , 2012, , .		0
51	Developing a cell-based sensor for the detection of Autoinducer-2. , 2013, , .		0