

Michelle C Y Chang

List of Publications by Year in descending order

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304368

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#	ARTICLE	IF	CITATIONS
1	Biocatalytic Asymmetric Construction of Secondary and Tertiary Fluorides from α -Fluoro- β -Ketoacids**. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	5
2	Substrate-Triggered $\frac{1}{4}$ -Peroxodiiron(III) Intermediate in the 4-Chloro-L-Lysine-Fragmenting Heme-Oxygenase-like Diiron Oxidase (HDO) <i>BesC</i> : Substrate Dissociation from, and C4 Targeting by, the Intermediate. <i>Biochemistry</i> , 2022, 61, 689-702.	1.2	13
3	Reaction pathway engineering converts a radical hydroxylase into a halogenase. <i>Nature Chemical Biology</i> , 2022, 18, 171-179.	3.9	25
4	Engineering nonphotosynthetic carbon fixation for production of bioplastics by methanogenic archaea. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	9
5	Engineering site-selective incorporation of fluorine into polyketides. <i>Nature Chemical Biology</i> , 2022, 18, 886-893.	3.9	23
6	Structural Basis for Branched Substrate Selectivity in a Ketoreductase from <i>Ascaris suum</i> . <i>ACS Catalysis</i> , 2021, 11, 8948-8955.	5.5	3
7	A dual cellular "heterogeneous catalyst strategy for the production of olefins from glucose. <i>Nature Chemistry</i> , 2021, 13, 1178-1185.	6.6	12
8	Chemoenzymatic Platform for Synthesis of Chiral Organofluorines Based on Type II Aldolases. <i>Angewandte Chemie</i> , 2019, 131, 11967-11971.	1.6	14
9	Engineering <i>in Vivo</i> Production of β -Branched Polyesters. <i>Journal of the American Chemical Society</i> , 2019, 141, 16877-16883.	6.6	21
10	A family of radical halogenases for the engineering of amino-acid-based products. <i>Nature Chemical Biology</i> , 2019, 15, 1009-1016.	3.9	85
11	Chemoenzymatic Platform for Synthesis of Chiral Organofluorines Based on Type II Aldolases. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11841-11845.	7.2	34
12	Synthetic Biology Approaches To New Chemistry. <i>FASEB Journal</i> , 2019, 33, 95.1.	0.2	0
13	Structural and Biochemical Studies of Substrate Selectivity in <i>Ascaris suum</i> Thiolases. <i>Biochemistry</i> , 2018, 57, 3155-3166.	1.2	14
14	Entropy drives selective fluorine recognition in the fluoroacetyl-CoA thioesterase from <i>Streptomyces cattleya</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2193-E2201.	3.3	11
15	Elucidating the mechanism of fluorinated extender unit loading for improved production of fluorine-containing polyketides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E660-E668.	3.3	25
16	Discovery and Engineering of Pathways for Production of β -Branched Organic Acids. <i>Journal of the American Chemical Society</i> , 2017, 139, 14526-14532.	6.6	16
17	Engineered Fluorine Metabolism and Fluoropolymer Production in Living Cells. <i>Angewandte Chemie</i> , 2017, 129, 13825-13828.	1.6	4
18	Fluorothreonyl-tRNA deacylase prevents mistranslation in the organofluorine producer <i>Streptomyces cattleya</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11920-11925.	3.3	27

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19	Engineered Fluorine Metabolism and Fluoropolymer Production in Living Cells. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13637-13640.	7.2	34
20	High-yield chemical synthesis by reprogramming central metabolism. <i>Nature Biotechnology</i> , 2016, 34, 1129-1129.	9.4	4
21	MamO Is a Repurposed Serine Protease that Promotes Magnetite Biomineralization through Direct Transition Metal Binding in Magnetotactic Bacteria. <i>PLoS Biology</i> , 2016, 14, e1002402.	2.6	43
22	Synthetic Biology Approaches to Fluorinated Polyketides. <i>Accounts of Chemical Research</i> , 2015, 48, 584-592.	7.6	25
23	Genetic and biochemical investigations of the role of MamP in redox control of iron biomineralization in <i>Magnetospirillum magneticum</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3904-3909.	3.3	62
24	Editorial overview: Opportunities and challenges in synthetic biology. <i>Current Opinion in Chemical Biology</i> , 2015, 28, v-vi.	2.8	1
25	Hybrid bioinorganic approach to solar-to-chemical conversion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11461-11466.	3.3	234
26	Natural and engineered biosynthesis of fluorinated natural products. <i>Chemical Society Reviews</i> , 2014, 43, 6527-6536.	18.7	100
27	Molecular Recognition of Fluorine Impacts Substrate Selectivity in the Fluoroacetyl-CoA Thioesterase Fk. <i>Biochemistry</i> , 2014, 53, 2053-2063.	1.2	20
28	Exploring bacterial lignin degradation. <i>Current Opinion in Chemical Biology</i> , 2014, 19, 1-7.	2.8	339
29	Structural insight into magnetochrome-mediated magnetite biomineralization. <i>Nature</i> , 2013, 502, 681-684.	13.7	119
30	Expanding the Fluorine Chemistry of Living Systems Using Engineered Polyketide Synthase Pathways. <i>Science</i> , 2013, 341, 1089-1094.	6.0	166
31	Production of advanced biofuels in engineered <i>E. coli</i> . <i>Current Opinion in Chemical Biology</i> , 2013, 17, 472-479.	2.8	49
32	Catalytic control of enzymatic fluorine specificity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19667-19672.	3.3	27
33	Identification and Characterization of a Multifunctional Dye Peroxidase from a Lignin-Reactive Bacterium. <i>ACS Chemical Biology</i> , 2012, 7, 2074-2081.	1.6	184
34	Biochemical and Structural Characterization of the trans-Enoyl-CoA Reductase from <i>Treponema denticola</i> . <i>Biochemistry</i> , 2012, 51, 6827-6837.	1.2	19
35	Temporal and Fluoride Control of Secondary Metabolism Regulates Cellular Organofluorine Biosynthesis. <i>ACS Chemical Biology</i> , 2012, 7, 1576-1585.	1.6	18
36	Constructing de Novo Biosynthetic Pathways for Chemical Synthesis inside Living Cells. <i>Biochemistry</i> , 2011, 50, 5404-5418.	1.2	35

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37	Discovery and Characterization of Heme Enzymes from Unsequenced Bacteria: Application to Microbial Lignin Degradation. <i>Journal of the American Chemical Society</i> , 2011, 133, 18006-18009.	6.6	100
38	Enzyme mechanism as a kinetic control element for designing synthetic biofuel pathways. <i>Nature Chemical Biology</i> , 2011, 7, 222-227.	3.9	319
39	Structural and Biochemical Studies of a Fluoroacetyl-CoA-Specific Thioesterase Reveal a Molecular Basis for Fluorine Selectivity. <i>Biochemistry</i> , 2010, 49, 9269-9279.	1.2	31
40	Harnessing energy from plant biomass. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 677-684.	2.8	116
41	Production of the antimalarial drug precursor artemisinic acid in engineered yeast. <i>Nature</i> , 2006, 440, 940-943.	13.7	2,498
42	A Selective, Cell-Permeable Optical Probe for Hydrogen Peroxide in Living Cells. <i>Journal of the American Chemical Society</i> , 2004, 126, 15392-15393.	6.6	594
43	Biocatalytic Asymmetric Construction of Secondary and Tertiary Fluorides from α -Fluoro- β -Ketoacids**. <i>Angewandte Chemie</i> , 0, , .	1.6	0