

# Innovation by Evolution: Bringing New Chemistry to Li

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Citation Report

#	ARTICLE	IF	CITATIONS
1	<i>ACS Central Science</i> Virtual Issue on Bioinspired Catalysis. ACS Central Science, 2019, 5, 1732-1735.	5.3	8
2	High-Throughput, Lysis-Free Screening for Sulfatase Activity Using <i>Escherichia coli</i> Autodisplay in Microdroplets. ACS Synthetic Biology, 2019, 8, 2690-2700.	1.9	25
3	Promises and Pitfalls of In Vivo Evolution to Improve Phage Therapy. Viruses, 2019, 11, 1083.	1.5	24
4	Die zentrale Rolle der Methodenentwicklung in der gerichteten Evolution selektiver Enzyme. Angewandte Chemie, 2020, 132, 13304-13333.	1.6	42
5	The Crucial Role of Methodology Development in Directed Evolution of Selective Enzymes. Angewandte Chemie - International Edition, 2020, 59, 13204-13231.	7.2	278
6	P450-BM3-Catalyzed Sulfoxidation versus Hydroxylation: A Common or Two Different Catalytically Active Species?. Journal of the American Chemical Society, 2020, 142, 2068-2073.	6.6	37
7	Advances in ultrahigh-throughput screening for directed enzyme evolution. Chemical Society Reviews, 2020, 49, 233-262.	18.7	182
8	Design and engineering of whole-cell biocatalytic cascades for the valorization of fatty acids. Catalysis Science and Technology, 2020, 10, 46-64.	2.1	38
9	Machine Learning in Enzyme Engineering. ACS Catalysis, 2020, 10, 1210-1223.	5.5	250
10	Directed Evolution of a Tryptophan 2,3-â€œDioxygenase for the Diastereoselective Monooxygenation of Tryptophans. Angewandte Chemie - International Edition, 2020, 59, 3043-3047.	7.2	9
11	Directed Evolution of a Tryptophan 2,3-â€œDioxygenase for the Diastereoselective Monooxygenation of Tryptophans. Angewandte Chemie, 2020, 132, 3067-3071.	1.6	6
12	Directed evolution of RhlI to generate new and increased quorum sensing signal molecule catalytic activities. Enzyme and Microbial Technology, 2020, 134, 109475.	1.6	5
13	The use of consensus sequence information to engineer stability and activity in proteins. Methods in Enzymology, 2020, 643, 149-179.	0.4	23
14	Ultrahigh throughput screening for enzyme function in droplets. Methods in Enzymology, 2020, 643, 317-343.	0.4	32
15	Asymmetric Biocatalytic Synthesis of 1-â€œAryltetrahydroâ€œcarbolines Enabled by â€œSubstrate Walkingâ€œ. Chemistry - A European Journal, 2020, 26, 16281-16285.	1.7	18
16	Raman hyperspectral imaging with multivariate analysis for investigating enzyme immobilization. Analyst, The, 2020, 145, 7571-7581.	1.7	19
17	Building better polymerases: Engineering the replication of expanded genetic alphabets. Journal of Biological Chemistry, 2020, 295, 17046-17059.	1.6	16
18	Directed Evolution of a Hydroxylase into a Decarboxylase for Synthesis of 1-Alkenes from Fatty Acids. ACS Catalysis, 2020, 10, 14375-14379.	5.5	16

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19	UMI-linked consensus sequencing enables phylogenetic analysis of directed evolution. <i>Nature Communications</i> , 2020, 11, 6023.	5.8	25
20	Microfluidics for Biotechnology: Bridging Gaps to Foster Microfluidic Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 589074.	2.0	62
21	Scalable biocatalytic C–H oxyfunctionalization reactions. <i>Chemical Society Reviews</i> , 2020, 49, 8137-8155.	18.7	105
22	Extending the Library of Light-Dependent Protochlorophyllide Oxidoreductases and their Solvent Tolerance, Stability in Light and Cofactor Flexibility. <i>ChemCatChem</i> , 2020, 12, 4044-4051.	1.8	13
23	Recent Developments in Enantioselective Transition Metal Catalysis Featuring Attractive Noncovalent Interactions between Ligand and Substrate. <i>ACS Catalysis</i> , 2020, 10, 10672-10714.	5.5	127
24	Optimization of Alcohol Dehydrogenase for Industrial Scale Oxidation of Lactols. <i>Biotechnology Journal</i> , 2020, 15, e2000171.	1.8	10
25	Roadmap to Building a Cell: An Evolutionary Approach. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 927.	2.0	28
26	Looking Back: A Short History of the Discovery of Enzymes and How They Became Powerful Chemical Tools. <i>ChemCatChem</i> , 2020, 12, 6082-6102.	1.8	59
27	Variants of the Acyltransferase from <i>Mycobacterium smegmatis</i> Enable Enantioselective Acyl Transfer in Water. <i>ACS Catalysis</i> , 2020, 10, 10500-10507.	5.5	23
28	Chemical Translational Biology-Guided Molecular Diagnostics: The Front Line To Mediate the Current SARS-CoV-2 Pandemic. <i>ChemBioChem</i> , 2020, 21, 3492-3494.	1.3	2
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30	Synthetic biology 2020-2030: six commercially-available products that are changing our world. <i>Nature Communications</i> , 2020, 11, 6379.	5.8	137
31	Recent Advances in Enzymatic and Chemoenzymatic Cascade Processes. <i>Catalysts</i> , 2020, 10, 1258.	1.6	34
32	Iron- and cobalt-catalyzed C(sp <sup>3</sup> )–H bond functionalization reactions and their application in organic synthesis. <i>Chemical Society Reviews</i> , 2020, 49, 5310-5358.	18.7	119
33	Embracing Nature's Catalysts: A Viewpoint on the Future of Biocatalysis. <i>ACS Catalysis</i> , 2020, 10, 8418-8427.	5.5	188
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35	Design of novel protein building modules and modular architectures. <i>Current Opinion in Structural Biology</i> , 2020, 63, 90-96.	2.6	9
36	Toxinology provides multidirectional and multidimensional opportunities: A personal perspective. <i>Toxicon: X</i> , 2020, 6, 100039.	1.2	2

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37	Directed Evolution of Ornithine Cyclodeaminase Using an EvolvR-Based Growth-Coupling Strategy for Efficient Biosynthesis of <sc>L</sc>-Proline. ACS Synthetic Biology, 2020, 9, 1855-1863.	1.9	23
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40	A Reflection on 50 Years of John Maynard Smith's "Protein Space". Genetics, 2020, 214, 749-754.	1.2	13
41	Computation-aided engineering of starch-debranching pullulanase from Bacillus thermoleovorans for enhanced thermostability. Applied Microbiology and Biotechnology, 2020, 104, 7551-7562.	1.7	37
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53	Recent advances in user-friendly computational tools to engineer protein function. Briefings in Bioinformatics, 2021, 22, .	3.2	41
54	Current advances in design and engineering strategies of industrial enzymes. Systems Microbiology and Biomanufacturing, 2021, 1, 15-23.	1.5	32

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55	Directed Evolution. The Legacy of a Nobel Prize. <i>Journal of Molecular Evolution</i> , 2021, 89, 189-191.	0.8	6
56	Recent advances in (chemo)enzymatic cascades for upgrading bio-based resources. <i>Chemical Communications</i> , 2021, 57, 10661-10674.	2.2	28
57	A protot-based, protonic charge transfer model of energy coupling in oxidative and photosynthetic phosphorylation. <i>Advances in Microbial Physiology</i> , 2021, 78, 1-177.	1.0	11
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63	Enzymatic strategies for asymmetric synthesis. <i>RSC Chemical Biology</i> , 2021, 2, 958-989.	2.0	34
64	Highlighting membrane protein structure and function: A celebration of the Protein Data Bank. <i>Journal of Biological Chemistry</i> , 2021, 296, 100557.	1.6	42
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66	A simple and efficient method for lyophilization of recombinant <i>E. coli</i> JM109 (DE3) whole-cells harboring active Rieske non-heme iron dioxygenases. <i>MethodsX</i> , 2021, 8, 101323.	0.7	6
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72	Harnessing proteins for engineered living materials. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100896.	5.6	7

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74	Pervasive cooperative mutational effects on multiple catalytic enzyme traits emerge via long-range conformational dynamics. <i>Nature Communications</i> , 2021, 12, 1621.	5.8	72
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77	Pseudo Natural Productsâ€™ Chemical Evolution of Natural Product Structure. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15705-15723.	7.2	73
80	Recent Advances in Biocatalysis with Chemical Modification and Expanded Amino Acid Alphabet. <i>Chemical Reviews</i> , 2021, 121, 6173-6245.	23.0	62
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91	Fatty Acids and their Derivatives as Renewable Platform Molecules for the Chemical Industry. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20144-20165.	7.2	114
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