Michael D Lynch

List of Publications by Year
in descending order

36 papers	1,055 citations	430442 18 h-index	454577 30 g-index
55 all docs	55 docs citations	55 times ranked	1018 citing authors

#	Article	IF	Citations
1	The past, present, and future of enzyme-based therapies. Drug Discovery Today, 2022, 27, 117-133.	3.2	12
2	Simple Scalable Protein Expression and Extraction Using Two-stage Autoinducible Cell Autolysis and DNA/RNA Autohydrolysis in Escherichia coli. Bio-protocol, 2022, 12, e4297.	0.2	0
3	Measuring Oligonucleotide Hydrolysis in Cellular Lysates via Viscosity Measurements. Bio-protocol, 2022, 12, e4304.	0.2	0
4	A Meta-Analysis of gRNA Library Screens Enables an Improved Understanding of the Impact of gRNA Folding and Structural Stability on CRISPR-Cas9 Activity. CRISPR Journal, 2022, 5, 146-154.	1.4	7
5	Integrated autolysis, DNA hydrolysis and precipitation enables an improved bioprocess for Q-Griffithsin, a broad-spectrum antiviral and clinical-stage anti-COVID-19 candidate. Biochemical Engineering Journal, 2022, 181, 108403.	1.8	1
6	â€œMultiagentâ€•Screening Improves Directed Enzyme Evolution by Identifying Epistatic Mutations. ACS Synthetic Biology, 2022, 11, 1971-1983.	1.9	4
7	<i>Escherichia coli</i> Cas1/2 Endonuclease Complex Modifies Self-Targeting CRISPR/Cascade Spacers Reducing Silencing Guide Stability. ACS Synthetic Biology, 2021, 10, 29-37.	1.9	4
8	A critical review on the progress and challenges to a more sustainable, cost competitive synthesis of adipic acid. Green Chemistry, 2021, 23, 3172-3190.	4.6	62
9	Dynamic control over feedback regulatory mechanisms improves NADPH flux and xylitol biosynthesis in engineered E. coli. Metabolic Engineering, 2021, 64, 26-40.	3.6	24
10	BioSamplr: An open source, low cost automated sampling system for bioreactors. HardwareX, 2021, 9, e00177.	1.1	4
11	The bioprocess TEA calculator: An online technoeconomic analysis tool to evaluate the commercial competitiveness of potential bioprocesses. Metabolic Engineering, 2021, 65, 42-51.	3.6	11
12	Genome dependent Cas9/gRNA search time underlies sequence dependent gRNA activity. Nature Communications, 2021, 12, 5034.	5.8	28
13	Optimization of phosphate-limited autoinduction broth for two-stage heterologous protein expression in <i>Escherichia coli</i>. BioTechniques, 2021, 71, 566-572.	0.8	4
14	Two-stage dynamic deregulation of metabolism improves process robustness & scalability in engineered E. coli.. Metabolic Engineering, 2021, 68, 106-118.	3.6	14
15	Low-Cost, Large-Scale Production of the Anti-viral Lectin Griffithsin. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1020.	2.0	29
16	Improved twoâ€stage protein expression and purification via autoinduction of both autolysis and auto DNA/RNA hydrolysis conferred by phage lysozyme and DNA/RNA endonuclease. Biotechnology and Bioengineering, 2020, 117, 2852-2860.	1.7	20
17	A Review of the Biotechnological Production of Methacrylic Acid. Frontiers in Bioengineering and Biotechnology, 2020, 8, 207.	2.0	31
18	Media Robustness and Scalability of Phosphate Regulated Promoters Useful for Two-Stage Autoinduction in <i>E.Âcoli</i>. ACS Synthetic Biology, 2020, 9, 1483-1486.	1.9	25

#	Article	IF	Citations
19	Scalable, twoâ€stage, autoinduction of recombinant protein expression in <i>E. coli</i> utilizing phosphate depletion. Biotechnology and Bioengineering, 2020, 117, 2715-2727.	1.7	26
20	CRISPR-Cas â€œNon-Targetâ€• Sites Inhibit On-Target Cutting Rates. CRISPR Journal, 2020, 3, 550-561.	1.4	17
21	A review of lipidation in the development of advanced protein and peptide therapeutics. Journal of Controlled Release, 2019, 295, 1-12.	4.8	77
22	Managing the SOS Response for Enhanced CRISPR-Cas-Based Recombineering in <i>E.Âcoli</i> through Transient Inhibition of Host RecA Activity. ACS Synthetic Biology, 2017, 6, 2209-2218.	1.9	41
23	Large-scale bioprocess competitiveness: the potential of dynamic metabolic control in two-stage fermentations. Current Opinion in Chemical Engineering, 2016, 14, 121-136.	3.8	88
24	Into new territory: improved microbial synthesis through engineering of the essential metabolic network. Current Opinion in Biotechnology, 2016, 38, 106-111.	3.3	37
25	Recombineering to homogeneity: extension of multiplex recombineering to largeâ€scale genome editing. Biotechnology Journal, 2013, 8, 515-522.	1.8	24
26	Strategies for the multiplex mapping of genes to traits. Microbial Cell Factories, 2013, 12, 99.	1.9	4
27	Identification of a 21 amino acid peptide conferring 3â€hydroxypropionic acid stressâ€tolerance to <i>Escherichia coli</i>. Biotechnology and Bioengineering, 2012, 109, 1347-1352.	1.7	25
28	Broadâ€hostâ€range vectors for protein expression across gram negative hosts. Biotechnology and Bioengineering, 2010, 106, 326-332.	1.7	30
29	Rapid dissection of a complex phenotype through genomic-scale mapping of fitness altering genes. Metabolic Engineering, 2010, 12, 241-250.	3.6	47
30	Genes restoring redox balance in fermentation-deficient E. coli NZN111. Metabolic Engineering, 2009, 11, 347-354.	3.6	79
31	Genome-scale analysis of anti-metabolite directed strain engineering. Metabolic Engineering, 2008, 10, 109-120.	3.6	22
32	A genomics approach to improve the analysis and design of strain selections. Metabolic Engineering, 2008, 10, 154-165.	3.6	43
33	Parallel mapping of genotypes to phenotypes contributing to overall biological fitness. Metabolic Engineering, 2008, 10, 382-393.	3.6	26
34	SCALEs: multiscale analysis of library enrichment. Nature Methods, 2007, 4, 87-93.	9.0	91
35	Broad host range vectors for stable genomic library construction. Biotechnology and Bioengineering, 2006, 94, 151-158.	1.7	46
36	Mapping phenotypic landscapes using DNA micro-arrays. Metabolic Engineering, 2004, 6, 177-185.	3.6	11