

# Lothar Eggeling

## List of Publications by Year in descending order

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75  
papers

6,605  
citations

53660

45  
h-index

79541

73  
g-index

78  
all docs

78  
docs citations

78  
times ranked

3407  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | CRISPR/Cas12a Mediated Genome Editing To Introduce Amino Acid Substitutions into the Mechanosensitive Channel MscCG of <i>Corynebacterium glutamicum</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 2726-2734.   | 1.9 | 22        |
| 2  | AftD functions as an $\alpha$ -D-arabinofuranosyltransferase involved in the biosynthesis of the mycobacterial cell wall core. <i>Cell Surface</i> , 2018, 1, 2-14.   | 1.5 | 14        |
| 3  | The singular <i>Corynebacterium glutamicum</i> Emb arabinofuranosyltransferase polymerises the $\alpha$ -D-arabinan backbone in the early stages of cell wall arabinan biosynthesis. <i>Cell Surface</i> , 2018, 2, 38-53.                                      | 1.5 | 8         |
| 4  | Lysine Industrial Uses and Production. , 2017, , 572-586.   |     | 1         |
| 5  | Mutations in MurE, the essential UDP-N-acetylmuramoylalanyl-d-glutamate 2,6-diaminopimelate ligase of <i>Corynebacterium glutamicum</i> : effect on l-lysine formation and analysis of systemic consequences. <i>Biotechnology Letters</i> , 2017, 39, 283-288. | 1.1 | 8         |
| 6  | Novel Technologies for Optimal Strain Breeding. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2016, 159, 227-254.  | 0.6 | 3         |
| 7  | Exporters for Production of Amino Acids and Other Small Molecules. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2016, 159, 199-225.   | 0.6 | 12        |
| 8  | Formation of xylitol and xylitol-5-phosphate and its impact on growth of d-xylose-utilizing <i>Corynebacterium glutamicum</i> strains. <i>Journal of Biotechnology</i> , 2016, 231, 160-166.  | 1.9 | 15        |
| 9  | Novel screening methods – biosensors. <i>Current Opinion in Biotechnology</i> , 2015, 35, 30-36.  | 3.3 | 130       |
| 10 | A giant market and a powerful metabolism: l-lysine provided by <i>Corynebacterium glutamicum</i> . <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 3387-3394.   | 1.7 | 193       |
| 11 | The contest for precursors: channelling l-isoleucine synthesis in <i>Corynebacterium glutamicum</i> without byproduct formation. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 791-800.   | 1.7 | 41        |
| 12 | Taking Control over Control: Use of Product Sensing in Single Cells to Remove Flux Control at Key Enzymes in Biosynthesis Pathways. <i>ACS Synthetic Biology</i> , 2014, 3, 21-29.  | 1.9 | 125       |
| 13 | Pushing product formation to its limit: Metabolic engineering of <i>Corynebacterium glutamicum</i> for l-lysine overproduction. <i>Metabolic Engineering</i> , 2014, 22, 40-52.   | 3.6 | 113       |
| 14 | Looking for the pick of the bunch: high-throughput screening of producing microorganisms with biosensors. <i>Current Opinion in Biotechnology</i> , 2014, 26, 148-154.  | 3.3 | 125       |
| 15 | Acyl-CoA sensing by FasR to adjust fatty acid synthesis in <i>Corynebacterium glutamicum</i> . <i>Journal of Biotechnology</i> , 2014, 192, 96-101.   | 1.9 | 20        |
| 16 | SoxR as a Single-Cell Biosensor for NADPH-Consuming Enzymes in <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , 2014, 3, 41-47.   | 1.9 | 117       |
| 17 | Interaction of 2-oxoglutarate dehydrogenase OdhA with its inhibitor OdhI in <i>Corynebacterium glutamicum</i> : Mutants and a model. <i>Journal of Biotechnology</i> , 2014, 191, 99-105.   | 1.9 | 26        |
| 18 | Recombineering in <i>Corynebacterium glutamicum</i> combined with optical nanosensors: a general strategy for fast producer strain generation. <i>Nucleic Acids Research</i> , 2013, 41, 6360-6369.   | 6.5 | 141       |

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|----|--|------|-----------|
| 19 | Proline addition increases the efficiency of lysine production by <i>Corynebacterium glutamicum</i> . Engineering in Life Sciences, 2013, 13, 393-398.   | 2.0  | 3         |
| 20 | Visualization of Imbalances in Sulfur Assimilation and Synthesis of Sulfur-Containing Amino Acids at the Single-Cell Level. Applied and Environmental Microbiology, 2013, 79, 6730-6736.   | 1.4  | 10        |
| 21 | Deletion of manC in <i>Corynebacterium glutamicum</i> results in a phospho-myo-inositol mannoside- and lipoglycan-deficient mutant. Microbiology (United Kingdom), 2012, 158, 1908-1917.   | 0.7  | 25        |
| 22 | A high-throughput approach to identify genomic variants of bacterial metabolite producers at the single-cell level. Genome Biology, 2012, 13, R40.   | 13.9 | 223       |
| 23 | <i>Corynebacterium glutamicum</i> harbours a molybdenum cofactor-dependent formate dehydrogenase which alleviates growth inhibition in the presence of formate. Microbiology (United Kingdom), 2012, 158, 2428-2439.   | 0.7  | 22        |
| 24 | A disposable picolitre bioreactor for cultivation and investigation of industrially relevant bacteria on the single cell level. Lab on A Chip, 2012, 12, 2060.   | 3.1  | 103       |
| 25 | Improved lysine production with <i>Corynebacterium glutamicum</i> and systemic insight into citrate synthase flux and activity. Biotechnology and Bioengineering, 2012, 109, 2070-2081.  | 1.7  | 121       |
| 26 | Optische Nanosensoren für Metabolit-Monitoring in der mikrobiellen Biotechnologie. Chemie-Ingenieur-Technik, 2012, 84, 1337-1337.  | 0.4  | 0         |
| 27 | <i>Corynebacterium glutamicum</i> as a Host for Synthesis and Export of D-Amino Acids. Journal of Bacteriology, 2011, 193, 1702-1709.  | 1.0  | 53        |
| 28 | Lipoarabinomannan biosynthesis in <i>Corynebacterineae</i> : the interplay of two $\beta$ (1 $\rightarrow$ 2)-mannopyranosyltransferases MptC and MptD in mannan branching. Molecular Microbiology, 2011, 80, 1241-1259.   | 1.2  | 34        |
| 29 | Citrate synthase in <i>Corynebacterium glutamicum</i> is encoded by two gltA transcripts which are controlled by RamA, RamB, and GlxR. Journal of Biotechnology, 2011, 154, 140-148.   | 1.9  | 48        |
| 30 | The TetR-type transcriptional regulator FasR of <i>Corynebacterium glutamicum</i> controls genes of lipid synthesis during growth on acetate. Molecular Microbiology, 2010, 78, 253-265.   | 1.2  | 31        |
| 31 | The E2 Domain of OdhA of <i>Corynebacterium glutamicum</i> Has Succinyltransferase Activity Dependent on Lipoyl Residues of the Acetyltransferase AceF. Journal of Bacteriology, 2010, 192, 5203-5211.   | 1.0  | 49        |
| 32 | Acceptor Substrate Discrimination in Phosphatidyl-myo-inositol Mannoside Synthesis. Journal of Biological Chemistry, 2010, 285, 37741-37752.   | 1.6  | 35        |
| 33 | Characterization of the <i>Corynebacterium glutamicum</i> <i>pimB</i> <sup>Δ</sup> <i>mgtA</i> <sup>Δ</sup> Double Deletion Mutant and the Role of <i>Mycobacterium tuberculosis</i> Orthologues Rv2188c and Rv0557 in Glycolipid Biosynthesis. Journal of Bacteriology, 2009, 191, 4465-4472. | 1.0  | 29        |
| 34 | A periplasmic, pyridoxal-5-phosphate-dependent amino acid racemase in <i>Pseudomonas taetrolens</i> . Applied Microbiology and Biotechnology, 2009, 83, 1045-1054.   | 1.7  | 40        |
| 35 | The serine hydroxymethyltransferase gene glyA in <i>Corynebacterium glutamicum</i> is controlled by GlyR. Journal of Biotechnology, 2009, 139, 214-221.  | 1.9  | 25        |
| 36 | Activity of Exporters of <i>Escherichia coli</i> in <i>Corynebacterium glutamicum</i> , and Their Use to Increase L-Threonine Production. Journal of Molecular Microbiology and Biotechnology, 2009, 16, 198-207.  | 1.0  | 42        |

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|----|--|-----|-----------|
| 37 | Structural characterization and functional properties of a novel lipomannan variant isolated from a <i>Corynebacterium glutamicum</i> pimB <sup>Δ2</sup> mutant. <i>Antonie Van Leeuwenhoek</i> , 2008, 94, 277-287.   | 0.7 | 28        |
| 38 | Identification of a novel $\alpha(1\rightarrow6)$ mannopyranosyltransferase MptB from <i>Corynebacterium glutamicum</i> by deletion of a conserved gene, <i>NCgl1505</i> , affords a lipomannan <sup>Δ</sup> and lipoarabinomannan <sup>Δ</sup> deficient mutant. <i>Molecular Microbiology</i> , 2008, 68, 1595-1613. | 1.2 | 59        |
| 39 | The Two Carboxylases of <i>Corynebacterium glutamicum</i> Essential for Fatty Acid and Mycolic Acid Synthesis. <i>Journal of Bacteriology</i> , 2007, 189, 5257-5264.  | 1.0 | 99        |
| 40 | Inactivation of <i>Corynebacterium glutamicum</i> NCgl0452 and the Role of MgtA in the Biosynthesis of a Novel Mannosylated Glycolipid Involved in Lipomannan Biosynthesis. <i>Journal of Biological Chemistry</i> , 2007, 282, 4561-4572.   | 1.6 | 65        |
| 41 | Reduced Folate Supply as a Key to Enhanced L-Serine Production by <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2007, 73, 750-755.   | 1.4 | 78        |
| 42 | Identification of an $\alpha(1\rightarrow6)$ mannopyranosyltransferase (MptA), involved in <i>Corynebacterium glutamicum</i> lipomannan biosynthesis, and identification of its orthologue in <i>Mycobacterium tuberculosis</i> . <i>Molecular Microbiology</i> , 2007, 65, 1503-1517.                                 | 1.2 | 73        |
| 43 | The three tricarboxylate synthase activities of <i>Corynebacterium glutamicum</i> and increase of L-lysine synthesis. <i>Applied Microbiology and Biotechnology</i> , 2007, 76, 587-595.   | 1.7 | 34        |
| 44 | Characterization of myo-Inositol Utilization by <i>Corynebacterium glutamicum</i> : the Stimulon, Identification of Transporters, and Influence on L-Lysine Formation. <i>Journal of Bacteriology</i> , 2006, 188, 8054-8061.  | 1.0 | 94        |
| 45 | Functional Analysis of All Aminotransferase Proteins Inferred from the Genome Sequence of <i>Corynebacterium glutamicum</i> . <i>Journal of Bacteriology</i> , 2005, 187, 7639-7646.   | 1.0 | 88        |
| 46 | Metabolic Engineering of <i>Corynebacterium glutamicum</i> for L-Serine Production. <i>Applied and Environmental Microbiology</i> , 2005, 71, 7139-7144.   | 1.4 | 125       |
| 47 | Two functional FAS-I type fatty acid synthases in <i>Corynebacterium glutamicum</i> . <i>Microbiology (United Kingdom)</i> , 2005, 151, 1359-1368.   | 0.7 | 78        |
| 48 | Ethambutol, a cell wall inhibitor of <i>Mycobacterium tuberculosis</i> , elicits L-glutamate efflux of <i>Corynebacterium glutamicum</i> . <i>Microbiology (United Kingdom)</i> , 2005, 151, 1359-1368.  | 0.7 | 116       |
| 49 | Acyl-CoA Carboxylases (accD2 and accD3), Together with a Unique Polyketide Synthase (Cg-pks), Are Key to Mycolic Acid Biosynthesis in <i>Corynebacteriaceae</i> Such as <i>Corynebacterium glutamicum</i> and <i>Mycobacterium tuberculosis</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 44847-44857.     | 1.6 | 159       |
| 50 | Cometabolism of a Nongrowth Substrate: L-Serine Utilization by <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2004, 70, 7148-7155.  | 1.4 | 78        |
| 51 | New ubiquitous translocators: amino acid export by <i>Corynebacterium glutamicum</i> and <i>Escherichia coli</i> . <i>Archives of Microbiology</i> , 2003, 180, 155-160.   | 1.0 | 107       |
| 52 | The complete <i>Corynebacterium glutamicum</i> ATCC 13032 genome sequence and its impact on the production of L-aspartate-derived amino acids and vitamins. <i>Journal of Biotechnology</i> , 2003, 104, 5-25.   | 1.9 | 844       |
| 53 | Disruption of Cg-Ppm1, a Polyprenyl Monophosphomannose Synthase, and the Generation of Lipoglycan-less Mutants in <i>Corynebacterium glutamicum</i> . <i>Journal of Biological Chemistry</i> , 2003, 278, 40842-40850.   | 1.6 | 45        |
| 54 | Linking Central Metabolism with Increased Pathway Flux: L-Valine Accumulation by <i>Corynebacterium glutamicum</i> . <i>Applied and Environmental Microbiology</i> , 2002, 68, 2246-2250.  | 1.4 | 112       |

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|----|--|-----|-----------|
| 55 | Identification of glyA (Encoding Serine Hydroxymethyltransferase) and Its Use Together with the Exporter ThrE To Increase l-Threonine Accumulation by Corynebacterium glutamicum. Applied and Environmental Microbiology, 2002, 68, 3321-3327. | 1.4 | 99        |
| 56 | Export of l-Isoleucine from Corynebacterium glutamicum : a Two-Gene-Encoded Member of a New Translocator Family. Journal of Bacteriology, 2002, 184, 3947-3956.  | 1.0 | 148       |
| 57 | The ubiquitous ThrE family of putative transmembrane amino acid efflux transporters. Research in Microbiology, 2002, 153, 19-25.   | 1.0 | 29        |
| 58 | l-Threonine Export: Use of Peptides To Identify a New Translocator from Corynebacterium glutamicum. Journal of Bacteriology, 2001, 183, 5317-5324.   | 1.0 | 110       |
| 59 | The Cell Wall Barrier of Corynebacterium glutamicum and Amino Acid Efflux.. Journal of Bioscience and Bioengineering, 2001, 92, 201-213.   | 1.1 | 52        |
| 60 | Attenuation control of ilvBNC in Corynebacterium glutamicum: Evidence of leader peptide formation without the presence of a ribosome binding site. Journal of Bioscience and Bioengineering, 2000, 90, 501-507.                                | 1.1 | 54        |
| 61 | In Vivo Quantification of Parallel and Bidirectional Fluxes in the Anaplerosis of Corynebacterium glutamicum. Journal of Biological Chemistry, 2000, 275, 35932-35941.   | 1.6 | 172       |
| 62 | Response of the Central Metabolism in Corynebacterium glutamicum to the use of an NADH-Dependent Glutamate Dehydrogenase. Metabolic Engineering, 1999, 1, 35-48.   | 3.6 | 113       |
| 63 | Different Modes of Diaminopimelate Synthesis and Their Role in Cell Wall Integrity: a Study with Corynebacterium glutamicum. Journal of Bacteriology, 1998, 180, 3159-3165.  | 1.0 | 65        |
| 64 | The fruits of molecular physiology: engineering the l-isoleucine biosynthesis pathway in Corynebacterium glutamicum. Journal of Biotechnology, 1997, 56, 167-182.  | 1.9 | 57        |
| 65 | Response of the central metabolism of Corynebacterium glutamicum to different flux burdens. , 1997, 56, 168-180.   |     | 102       |
| 66 | Glucose-controlled l-isoleucine fed-batch production with recombinant strains of Corynebacterium glutamicum. Journal of Biotechnology, 1996, 50, 123-136.  | 1.9 | 34        |
| 67 | Determination of the fluxes in the central metabolism of Corynebacterium glutamicum by nuclear magnetic resonance spectroscopy combined with metabolite balancing. Biotechnology and Bioengineering, 1996, 49, 111-129.                        | 1.7 | 421       |
| 68 | A new type of transporter with a new type of cellular function: l-lysine export from Corynebacterium glutamicum. Molecular Microbiology, 1996, 22, 815-826.  | 1.2 | 232       |
| 69 | Threonine dehydratases of Corynebacterium glutamicum with altered allosteric control: their generation and biochemical and structural analysis. Molecular Microbiology, 1994, 13, 833-842.   | 1.2 | 32        |
| 70 | Stable Expression of hom-1-thrB in Corynebacterium glutamicum and Its Effect on the Carbon Flux to Threonine and Related Amino Acids. Applied and Environmental Microbiology, 1994, 60, 126-132.   | 1.4 | 72        |
| 71 | Strains of Corynebacterium glutamicum with Different Lysine Productivities May Have Different Lysine Excretion Systems. Applied and Environmental Microbiology, 1993, 59, 316-321.   | 1.4 | 56        |
| 72 | Cloning, organization and functional analysis of ilvA, ilvB and ilvC genes from Corynebacterium glutamicum. Gene, 1992, 112, 113-116.  | 1.0 | 43        |

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|----|--|-----|-----------|
| 73 | Isolation and prominent characteristics of an L-lysine hyperproducing strain of <i>Corynebacterium glutamicum</i> . Applied Microbiology and Biotechnology, 1992, 37, 566.   | 1.7 | 116       |
| 74 | Control of the Lysine Biosynthesis Sequence in <i>Corynebacterium glutamicum</i> as Analyzed by Overexpression of the Individual Corresponding Genes. Applied and Environmental Microbiology, 1991, 57, 1746-1752. | 1.4 | 155       |
| 75 | Regulation of acetohydroxy acid synthase in <i>Corynebacterium glutamicum</i> during fermentation of $\alpha$ -ketobutyrate to l-isoleucine. Applied Microbiology and Biotechnology, 1987, 25, 346.                | 1.7 | 101       |