Dr. Michael Köpke is the Chief Innovation Officer at LanzaTech ($LNZA), the carbon recycling company transforming waste carbon into sustainable fuels, chemicals, materials, and protein for everyday products using biology.

Michael holds a Ph.D. in biotechnology and has over 20 years of experience in the field. He is a pioneer in synthetic biology of carbon fixing microbes recognized by the Presidential Green Chemistry Challenge Award for Greener Synthetic Pathways and the ACS National Award for Team Innovation. Michael is an inventor of over 500 patents and has authored more than 50 peer-reviewed articles and book chapters. He also co-led several community efforts including the development of a roadmap on synthetic biology approaches for climate and sustainability by an international consortium of over 90 experts or the initiation of the gas fermentation conference series.

Beyond his role at LanzaTech, Michael serves as an adjunct faculty at Northwestern University, council member at the Engineering Biology Research Consortium (EBRC), and board member of the International Metabolic Engineering Society (IMES) amongst various other editorial (e.g. Microbial Cell Factories, New Biotechnology, Frontiers Bioengineering) and scientific advisory board roles (e.g. SynBioAfrica, Joint Genome Institute, Center for Advanced Bioenergy & Bioproducts Innovation).

More information:

www.lanzatech.com (Homepage)
michael-koepke/ (LinkedIn)
michaelkoepke80 (X)

Selected work:

Carbon-negative, scaled-up production of acetone and isopropanol by gas fermentation (*Nature Biotechnology*, Cover Article, 2022)
Addressing the climate crisis through engineering biology (*npj Climate Action*, 2024)
Biotechnology-driven carbon recycling (*European Biotechnology Magazine*, Editorial, 2022)
Pollution to products: Recycling of “above ground” carbon by gas fermentation (*Current Opinion Biotechnology, 2020*)