Contribution ID: 16

## BIOWIN: AI-supported biotechnology for resource-efficient active compound and bio-nylon production

Monday, October 14, 2024 3:50 PM (20 minutes)

The project aims to develop innovative and sustainable technologies for the production of the antifibrinolytic agent  $\varepsilon$ -aminocaproic acid and bio-nylon monomers. The production strategies are based on the same artificial metabolic pathways, which will be optimized to maximize production rates. E. coli, Pseudomonas, and cyanobacterial strains are used or developed as production strains. Reaction technology and process concepts are being developed for these strains, including biofilm-based concepts. In order to accelerate process development, a paradigm shift from empirical to systematic approaches using AI and in-silico modeling will be implemented.

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Session Classification: Session 3: Carbon-Based Materials