UNIVERSITY OF HOHENHEIM

Biosurfactants International Conference

Biosurfactants | International Conference

The Biosurfactants 2025 conference in Aachen, Germany, aims to be the venue for exchange between the many stakeholders involved in making biosurfactants a reality. The ever-increasing surfactant market is a major outlet of the chemical industry. The global surfactants market size was estimated at USD 39 billion in 2020. Like many areas of this industry, the surfactant sector is also highly under pressure by market developments like ecotoxicology, sustainability, functionality, and price. Biosurfactants produced by microbes from renewable resources (biomass, CO_2+green H_2, residues) can contribute and are already contributing to overcome the many challenges. While only a few biosurfactants are commercially available, we see many efforts in increasing production capacities, applications, and basic research into the many unknowns of biosurfactants. At Biosurfactants 2025, experts from academia and industry will discuss the newest developments and share the latest insights while informing newcomers about this exciting field of microbial biotechnology.

3. INTERNATIONAL BIOSURFACTANTS CONFERENCE 2025

10-12 SEP
AACHEN
GERMANY

BOOK OF ABSTRACTS

EVONIK Leading Beyond Chemistry

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BASF We create chemistry

SPRINGER NATURE

iAMB Institute of Applied Microbiology

ABBt Aachen Biology and Biotechnology

RWTH AACHEN UNIVERSITY

Biosurfactants in food chain: opportunities and challenges.

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The growing trend towards a more sustainable society is driving the search for green surfactants to replace synthetic alternatives in various industrial sectors. In recent decades, surfactants derived from microbial sources have gained attention because their production aligns with the principles of green chemistry and meets consumers' demand for natural products. Biosurfactants (BS) offer emulsifying, antimicrobial, and antioxidant properties that can be exploited for crop protection, cleaning, and food/feed formulations. Another approach involves using BS to synthesize nanosized structures such as nanoparticles, nanoemulsions, micelles, and liposomes, which can be incorporated into food products or smart and active packaging. Additionally, utilizing food by-products as substrates for BS production helps reduce waste and promotes a circular bioeconomy. However, there are still challenges to overcome regarding the use of BS in the food chain that need to be addressed.