

PhD-Position

Development of a process for the production of Erythritol from lignocellulosic biomass

The aim of the three-year PhD-position is the development of a process for producing Erythritol from lignocellulosic biomass under the framework of an existing Christian-Doppler-laboratory. This raw material stands for a flexible basis with huge potential for the efficient and sustainable manufacture of high-value-added products from low-value bio-residues within the context of biorefining and whole-plant-utilization.

The research will focus on the analysis and development of different biomass pretreatment strategies to produce a mixed-sugar fraction suitable as a substrate for microbial fermentation by sapotrophic fungi. In addition to this upstream processing, also downstream processes for the concentration and purification of the final product will be a central research topic. Process developments further necessitates the development of novel analytical methods for the quantitative assessment of key substances in complex production matrix. Finally, process simulation methods will be applied to design and optimize a complex and competitive production process for Erythritol from lignocellulosic biomass.



Your profile:

- MSc. in Chemical Engineering, Technical Chemistry, Biochemical Engineering or equivalent, key area of training in Thermal Separation Engineering is advantageous
 - Practical experience in the operation of plants in the field of Chemical Engineering or Thermal Process Engineering
 - Application experience for state-of-the-art analytical methods
 - Experience in the field of process simulation is advantageous
- Enthusiasm for Chemical Engineering, motivation, problem solving skills, creativity

We offer:

- Exciting and up-to-date challenge from applied research
- Integration in a highly qualified team of experts
- University employment at common conditions
- Attractive occupation entrance possibilities

Application deadline: **July 31, 2019 (Application and employment in ENGLISH or GERMAN)**

Further information and application:

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