

Glycerin Waste Treatment – Solid-Liquid Extraction

Topic suitable for Master Thesis / Bachelor Thesis / Plant Design

Second-generation biofuels make an important contribution to the gradual decarbonization of fossil fuels. During the production of such biofuel components from crude glycerin, a waste stream of glycerol polluted with different organic and inorganic compounds is produced. In the FFG-financed joint industrial research project INTEGRAL, a process for the separation of this mixture into usable feed stocks shall be found. For this purpose, the construction of a working pilot plant, as well as measurements of component purities and plant performance will be needed. The focus of the pilot plant will be the Taylor-Couette Disc Contactor (TCDC), a multipurpose extraction column developed at CEET, whose potential capabilities as a continuous solid-liquid extraction column shall be investigated.



Many different tasks are available:

- Construction of the pilot plant components
- Lab trials to identify possible process configurations for industrial application
- Simulation of the process behavior
- Investigations into the plant scale-up behavior

