

Theoretical Bachelor-, Master thesis, Scientific Internship

Literature review, analysis and comparison of the available processes for phosphorous recovery from wastewater plants

Description

At the Chemical Process Engineering laboratory of the TUM, Campus Straubing takes place the analysis and comparison of the available processes for phosphorous recovery from wastewater plants.

The discharge of phosphorous into the water can lead to significant problems, because phosphorous accelerates eutrophication and can have detrimental effects for aquatic life. In addition, the rapid depletion of phosphate rock used to produce fertilizers makes the need for the implementation of effective phosphorous recovery techniques even larger. In the project, the available processes for phosphorous recovery in wastewater treatment plants will be studied. The main tasks of the offered project are to search the available literature and to find the different processes used for phosphorous recovery in wastewater treatment plants. The existing processes will be studied, analyzed and compared. Block diagrams and process flow diagrams will be drawn for the processes. Also, the material balances will be calculated and a comparison of the process performances will be made.

Requirements

Basic engineering and chemistry knowledge and good knowledge of the English language are required. Knowledge in any of the following areas is appreciated: environmental engineering, process engineering, phosphorous chemistry.

To start

Immediately

Technical University of Munich

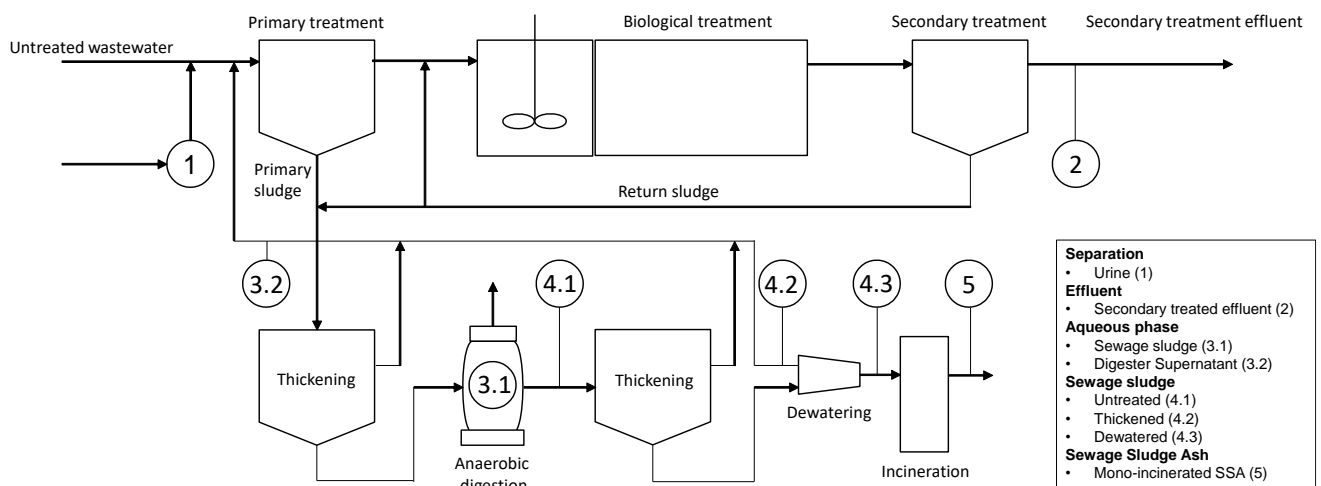
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(Modified sketch from L. Egle et al., 2016)