

Evaluating the effects of operational parameters and conditions on struvite crystallization and precipitation with the focus on temperature

ABSTRACT

This article discusses wastewater treatment through struvite precipitation method. The most important operational conditions are introduced and discussed shortly with the stress on the effects of temperature on struvite precipitation. It continues with some description about the struvite itself. Phosphorous which is known as one of the highly depleted elements on earth is also discussed in this introductory article. The phenomenon of struvite precipitation used to mostly be known as a nuisance and an operational problem in wastewater treatment in the form of precipitates which was later named as struvite precipitates. The need for more studies in wastewater treatment through struvite precipitation is still felt in different aspects like, quality and quantity optimization as well as its application and the operational affecting parameters.

Keyword: Magnesium ammonium phosphate; Phosphorus removal; Struvite crystallization technologies; Fertilizer; Effects of temperature on struvite crystallization