Dynamic Simulation of an Aqueous Waste Treatment System

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Abstract
This paper studies the dynamics of an aqueous waste treatment process. The dynamic simulation of such a process is complicated by a variety of factors primary of which is the development of adequate dynamic models to characterise the various complex phase and reaction phenomena that take place. The dynamic model of the flowsheet is developed and the flowsheet is solved with the aid of two commercial tools which are linked via a generic interface. The results of the simulation are presented under a variety of dynamic process conditions. These demonstrate the potential ability of the methodology presented to be used for a wide range of dynamic operations including dynamic optimisation and parameter estimation.

Keywords: Aqueous, Electrolytes, Dynamic, Simulation, Waste, Treatment.