Abstract

This article addresses a fuzzy logic approach to calculate the optimum minimum allowable composition difference (?) to target the minimum total annualized cost (TAC) of a mass exchange network (MEN), which is based on combining composition interval diagram (CID) with fuzzy set theory. The value of ? directly affect the TAC as a main constrain. By utilizing this decision algorithm it gives the opportunity to calculate the optimum composition difference by decision making from a wide range of assumed ?. This method is very simple and more convenient than the methods previously published; as the decision is taken without calculating TAC for every assumed ?.

References


**Index Terms**

Computer Science Fuzzy Systems

**Keywords**

Mass exchange network Fuzzy Approach Mass Integration Process synthesis Process Optimization

Multi-objective decision making