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

Fuzzy Approach for the Synthesis of Mass Exchange Network

AlChE Journal, 1233-1244.

Index Terms

Computer Science

Fuzzy Systems

Keywords

Mass exchange network  Fuzzy Approach  Mass Integration  Process synthesis  Process Optimization

Multi-objective decision making