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## 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 ?.

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## Index Terms

Computer Science                    Fuzzy Systems

## Keywords

Mass exchange network   Fuzzy Approach   Mass Integration   Process synthesis
Process Optimization

Multi-objective decision making