

A B S T R A C T

A method of optimizing a chemical reaction in a plate-type open reactor, the method consisting in:

- 5 • establishing a dynamic model of the reactor for a given reaction on the basis of a model of the reactor and its heat exchanges;
- 10 • applying an integration software tool to the dynamic model in order to solve the above-mentioned equations;
- 15 • determining and optimizing a set of dimension and/or operation parameters of the reactor on the basis of evaluating targets to be achieved, constraints to be complied with, and variable data for the reactor and/or the reaction;
- 20 • building a plate reactor of the said type accordingly to the set of optimized parameters; and
- doing measurements of physical parameters during the execution of said reaction in the built reactor, for validating its operation.

Figure 1



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