

**NAPHTA CATALYTIC REFORM: MODELING AND SIMULATION OF UNITY**

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**ABSTRACT**

In this work were realized the modeling and simulation of the catalytic reformer process, of ample form, considering all the equipments that influence the operation performance. Considered it a semi regenerative reformer, with fours reactors in series intercalated with four furnaces, two heat exchanges, one product separator and one recycle compressor. A simplified reaccional system was considered, involving only ten chemical compounds related through five reactions. The considered process were the applied to aromatics production (benzene, toluene and xylene). The models developed to diverse equipments, were interconnects in a simulator that consist of a computer program elaborate in FORTRAN 77. The simulation of global model representative of reformer unity, achieved results that are compatibles with the literature ones. It was then possible to study the effects of operational variables in the products concentration and in the performance of the unity equipments.

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