عنوان مقاله:

CFD Modeling of MTO process over SAPO-34 Catalyst in an isothermal fixed bed reactor

محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

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خلاصه مقاله:

This work aims to test the application of computational fluid dynamics (CFD) modeling to fixed bed catalytic cracking reactors. Studies of CFD with a fixed bed design commonly use a regular packing with N=2 (tube-to-particle diameter ratio) to define bed geometry. Methanol was used as feedstock and the reactor length was 10cm. In CFD modeling of MTO process an isotheral fixed bed tubular reactor in the 648 K and a kinetic model consists of four individual steps for the production of ethene, propene, butenes, and rest of hydrocarbons (pentens+parafins) have been used. The .CFD models were evaluated by comparing the model predictions with the published experimental data

کلمات کلیدی: Catalyst; CFD; MTO process; SAPO-34

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