عنوان مقاله:

Mathematical Modeling, Simulation of Reaction, and Regeneration Sections of MTO Process: Review

محل انتشار:

دومین کنگره بین المللی دانشجویان مهندسی شیمی و صنعت نفت (سال: 1402)

تعداد صفحات اصل مقاله: 23

نویسندگان:

Mahdieh Garmsirian - *Petroleum University of Technology, Ahwaz Faculty of Petroleum, Gas Engineering Department*

Reza Mosayebbi behbahani - *Petroleum University of Technology, Ahwaz Faculty of Petroleum, Gas Engineering Department*

Moslem Fattahi - *Petroleum University of Technology, Ahwaz Faculty of Petroleum, Gas Engineering Department*

Mohammagreza Khosravi nikou - *Petroleum University of Technology, Ahwaz Faculty of Petroleum, Gas Engineering Department*

خلاصه مقاله:

Light olefins, especially ethylene and propylene, are essential intermediates in the petrochemical industry, which are used to produce polyethylene, polypropylene, and other essential products. Olefins can be produced using different processes and raw materials. The method of converting methanol to olefins is one of the processes that has received much attention in recent years. The purpose of this research is to review the mathematical modeling of the reaction and regenerator sections, hydrodynamic simulation, heat transfer, and reaction in the fluidized bed reactor using computational fluid dynamics (CFD), large eddy simulation (LES), for methanol to olefin process (MTO). It is also an examination of effective parameters such as reactor length, reactor flow rate, product distribution, optimal product distribution scenario, and flow rates in a fluidized bed reactor

کلمات کلیدی:

Fluidized bed reactor (FBR), Large eddy simulation (LES), Methanol to olefin (MTO), Computational fluid dynamic (CFD)).

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1885431