عنوان مقاله:

Reactor modeling for diethylbenzene (DEB) dehydrogenation reactions

محل انتشار:

شانزدهمین کنگره ملی مهندسی شیمی ایران (سال: 1397)

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نویسندگان:

Mohammad EbrahimZeynali - *Iran Polymer and Petrochemical Institute, P.O. Box: ۱۴۹۶۵-۱۱۵, Tehran, Iran*

Hossein Abedini - *Iran Polymer and Petrochemical Institute, P.O. Box: ۱۴۹۶۵-۱۱۵, Tehran, Iran*

Hamid Rrza Sadri - *Iran Polymer and Petrochemical Institute, P.O. Box: ۱۴۹۶۵-۱۱۵, Tehran, Iran*

خلاصه مقاله:

A set-up has been developed to conduct the DEB dehydrogenation reactions experiments to prepare divinylbenzene (DVB) at different conditions. Model equations for DEB dehydrogenation reactor have been solved by genetic algorithm (GA) method using MATLAB software. The conversion of DEB and ethylvinyl benzene (EVB) in the reactor was predicted by mathematical modeling and compared with experimental results. The comparison shows good agreements between experimental and modeling results. The combined effects of DEB flow rate and catalyst weight as time factor were investigated on conversion of DEB and production of EVB and DVB. Effects of temperature on consumption of DEB and production of EVB and DVB in the tubular reactor were investigated.

کلمات کلیدی:

diethylbenzene, dehydrogenation, reactor modeling, divinylbenzene

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