

Comparison of Simulation Results and Experimental data for DME Synthesis

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DME is considered as one of the most promising candidates for the substitute of LPG and diesel fuel. We analyzed one-step DME synthesis from syngas in a shell and tube type fixed bed reactor with consideration of the heat and mass transfer between catalyst pellet and reactants gas and effectiveness factor of catalysts together with reactor cooling through reactor wall. We compared the experimental data of pilot plant and simulation results; temperature profile, CO conversion, DME productivity.