عنوان مقاله:

CFD Simulation of Natural Gas Purification in a Gas-Liquid Hollow-Fiber Membrane Contactor

محل انتشار:

اولین کنفرانس ملی غشا و فرایندهای غشایی (سال: 1389)

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خلاصه مقاله:

In this work, simultaneous absorption of H2S and CO2 was studied theoretically into aqueous solution MDEA, using a polypropylene porous hollow fiber membrane contactor(HFMC). A 2D mathematical model was proposed to study simultaneous transport of CO2 and H2S through a HFMC. The modelconsiders axial and radial diffusion and convective flow in the tube and shell side with chemical reaction. The finite-element method(FEM) was applied to solve the model equations. Modeling predictions were then validated with the experimental data. The modeling predictions were in good agreement with theexperimental data for different values of gas and liquid velocities.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: