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Adsorption Equilibrium of Volatile in Condensed Mode Polyethylene Process

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摘要 In this paper n-hexane is chosen as typical volatile in condensed mode polymerization process, and the adsorption equilibrium of volatile in polyethylene particles is studied through experiments at different temperatures, pressures and particle diameters. It is found that more adsorbed quantity of volatile at equilibrium can be obtained with lower temperature, higher pressure and smaller particle diameter. Under polymerization conditions, the adsorbed quantity at equilibrium is more strongly affected by temperature than by pressure, and if the diameter distribution of particles is very wide the effect of diameter on the adsorbed quantity must be taken into consideration. With theoretical analyses a model is proposed for calculating the adsorbed quantity of volatile at equilibrium.

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Abstract

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