

TRANSPORT PHENOMENA & FLUID MECHANICS

多孔介质中的多相流研究  
孔流, 多孔介质  
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关键词: 多孔介质, 多相流, 流固耦合

摘要: In this work, a mathematical model is established to describe the axial variation of the characteristic flow parameters (particle velocity, solid loading and pressure gradient) in a drifter. An empirical correlation is developed to estimate the particle velocity at the constant velocity section. Experimental investigations are made to validate the drifter model. The model simulations have a good agreement with experimental data. Moreover, a formula is derived to predict the first acceleration section length and the whole acceleration section length.

关键词

Investigation of Air Acceleration Regime in a Gas-Filled Co-current Drifter  
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Abstract: In this work, a mathematical model is established to describe the axial variation of the characteristic flow parameters (particle velocity, solid loading and pressure gradient) in a drifter. An empirical correlation is developed to estimate the particle velocity at the constant velocity section. Experimental investigations are made to validate the drifter model. The model simulation have a good agreement with experimental data. Moreover, a formula is derived to predict the first acceleration section length and the whole acceleration section length.

Keywords: [multi-phase reaction](#), [drifter](#), [drifter model](#), [acceleration section](#)

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