

Gas Pressure Evaluation through Radial Velocity Measurement of Fluid Flow Modeled by Drift Flux Model

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Abstract : In this paper, we consider a drift flux mixture model of the blood flow. The mixture consists of gas phase which is carbon dioxide and liquid phase which is an aqueous carbon dioxide solution. This model was used to determine the distributions of the mixture velocity, the mixture pressure, and the carbon dioxide pressure. These theoretical data are used to determine a measurement method of mean gas pressure through the determination of radial velocity distribution. This method can be applicable in experimental domain.

Keywords : mean carbon dioxide pressure, mean mixture pressure, mixture velocity, radial velocity

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