**71d Numerical Determination of Two-Equation Heat Transfer Model Parameters in Fixed Bed**

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Fixed beds are amongst the most used forms of chemical reactors in chemical industry, that is why it is of great importance to be able to predict its behaviour correctly. One of the critical phenomena usually occuring inside and which needs to be predicted is heat transfer and dispersion. A great deal of studies on this subject have been performed in the past, however corelations and models can still fail to yield wanted match with experiments. The most widely used model is a simple two-equation heat transfer model which accounts for the energy of both phases and energy transfer between them. It contains lumped parameters which are supposed to capture all the phenomena occuring on the microscale. The usual way of determining those parameters are via empirical corelations, however in this work a different approach is presented - numerical simulations of fixed bed on microscale and extraction of macroscale parameters from results. Fixed bed on the microscale is represented with periodic unit cells and simulations are performed with the aid of CFD. Parameters, obtained in this way, are compared with some experimental data from the literature.