

### Model development for the mixing region of hydrocarbon reformers

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The CFD model coupled with gas-phase kinetics is expected to be developed to solve the mixing problem in liquid fuel reformer. As previous steps, the reduced gas-phase kinetics and CFD model were developed independently. The major characteristics of kinetic and fluid dynamic models were validated from experimental results. As the next step, the gas-phase kinetics will be applied to CFD model to describe coupling nature of phenomena in the mixer. The coupled model will allow the systematic approach in designing the mixer and realistic description of phenomena.

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