

Computer-aided modeling framework – a generic modeling template for catalytic membrane fixed bed reactors - DTU Orbit (09/11/2017)

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This work focuses on development of computer-aided modeling framework. The framework is a knowledge-based system that is built on a generic modeling language and structured based on workflows for different general modeling tasks. The overall objective of this work is to support the model developers and users to generate and test models systematically, efficiently and reliably. In this way, development of products and processes can be faster, cheaper and very efficient. In this contribution, as part of the framework a generic modeling template for the systematic derivation of problem specific catalytic membrane fixed bed models is developed. The application of the modeling template is highlighted with a case study related to the modeling of a catalytic membrane reactor coupling dehydrogenation of ethylbenzene with hydrogenation of nitrobenzene.

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