

Reactor design for the direct dehydrogenation of methanol to formaldehyde – Reaktordesign für die direkte Dehydrierung von Methanol zu Formaldehyd

Studentische Hilfskraft (theoretical/experimental)

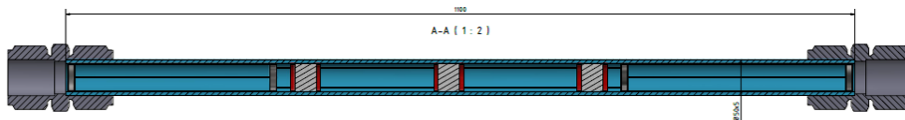
Beginn: immediately

Themenstellung:

This work will be carried out as part of the NAMOSYN project, in which an experimental setup for anhydrous formaldehyde production is being designed and built. The dehydrogenation of methanol to formaldehyde takes place in the gas phase using sodium vapor as the catalyst. The water-free formaldehyde can then be used for the production of OME (oxymethylene ether).

Following tasks could be dealt with:

- Literature review regarding chemical reactors
- Ceramic sponges as mixers (see figure)
- Heat transfer evaluation
- Comparison of the calculated values with experimental results
- Experimental work



The content and scope of the tasks as well as wishes of the student can be discussed with the supervisors.

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