

Direct dehydrogenation of methanol to formaldehyde – sodium evaporation and condensation

Direkte Dehydrierung von Methanol zu Formaldehyd – Natriumverdampfung und -kondensation

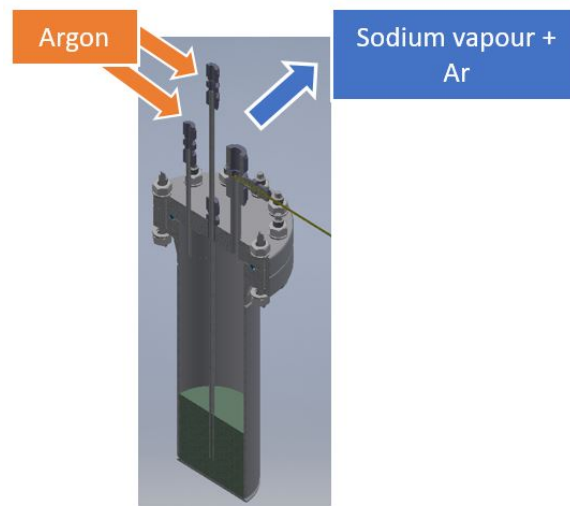
Hiwi/ Master thesis (theoretical/experimental)

Beginn: immediately

Chemieingenieurwesen/Verfahrenstechnik, Maschinenbau

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 vapour 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 sodium issues such as corrosion, purification methods, bubbles column
- Conceptual design of purification methods of sodium
- Calculations on the subject of sodium evaporation
- Experimental work

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

Marta Kamienowska

marta.kamienowska@partner.kit.edu

+49 721 608-28482

Klarissa Niedermeier

klarissa.niedermeier@kit.edu

+49 721 608-26902