

**Report on travel grant no. 3904 of the Max-Buchner-Research Foundation**

***„Haber-Bosch 2.0 - Exploring Load-Flexible Ammonia Synthesis  
via Polytropic Fixed-Bed Reactors “***

*ISCRE28 – International Symposium on Chemical Reaction Engineering 2024  
(16 – 19 June 2024)*

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The International Symposium on Chemical Reaction Engineering is the most prestigious international conference in the field of chemical reaction engineering. This year's edition ISCRE28 took place from June 16-19, 2024 in Turku, Finland. Here, I had the opportunity to present my current research on ammonia synthesis in an oral presentation. Using numerical simulation studies, I am investigating the potential of different reactor concepts to enable load-flexible ammonia synthesis. Load-flexibility becomes particularly relevant when renewable energies are used to produce green ammonia. Following my presentation, I had the opportunity to discuss my results with a very interested audience and I received valuable input for my further research.

The conference offered many highly interesting contributions ranging from very specific to more general topics, which opened up new perspectives. In particular, I was able to make new contacts with other researchers, who also are specialized in ammonia synthesis and / or dynamic reactor operation. The conference dinner took place in the medieval castle of Turku. I used that opportunity to make new contacts in the relaxed atmosphere.

I would like to thank the Max-Buchner Research Foundation once again for awarding me a travel grant, which enabled me to attend ISCRE28 to promote scientific exchange and international networking.