

**Bericht zum Reisestipendium Nr. 3892 der Max-Buchner-Forschungstiftung**

***„ Transition-metal substituted polyoxometalates as soluble redox mediators  
in electrocatalytic biomass conversion“***

*Annual Meeting on Reaction Engineering and Electrochemical Processes 2024 (06.-  
08.05.2024)*

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I applied for the Max Buchner travel grant to attend the Annual Meeting on Reaction Engineering 2024 in Würzburg, May 6 – 8. My scientific contribution to the conference was a lecture titled “Transition-metal substituted polyoxometalates as soluble redox mediators in electrocatalytic biomass conversion”.

This research was carried out in collaboration between the respective Institutes of Macromolecular and Technical Chemistry at RWTH Aachen University and the University of Hamburg (UHH) and has already been published in ChemCatChem, January 2024 (10.1002/cctc.202301632).

The talk started with a motivation for alternative anodic oxidation reactions to enhance electrochemical hydrogen production. Then, the polyoxometalate materials manufactured at UHH were introduced and their role as redox mediator species in anodic biomass conversion. Following, the details of the electrocatalytic reactions were presented that can be found in the publication.

Finally, a continuous decoupled electrochemical and thermochemical redox reservoir process was envisioned.

The discussion with the audience was very inspiring and sparked our interest in follow-up investigations.

Besides that, I introduced the scientific poster program to the plenary thereby representing NaWuReT. I used the breaks and conference dinner to make new contacts as well as to consolidate my existing network which is currently not easy due to my stay abroad.

Overall, the conference was very important and successful for me.