

Report on travel grant no. 3880 from the Max Buchner Research Foundation

„Solid-state NMR spectroscopic investigation of supported fluorinated ionic liquids for interface-enhanced supported ionic liquid phase catalysts“

*9th Conference of the Federation of the European Zeolite Associations (FEZA)
(2 – 6 July 2023)*

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The ninth conference of the Federation of European Zeolite Associations (FEZA 9th) occurred from the 2nd to the 6th of July in Portorož-Portorose, Slovenia. On the first day after registration, we could walk and enjoy the nice weather, the beach and try some local seafood and wine.

The programme consisted of 5 plenaries, 11 keynote talks, 153 oral presentations, and 163 posters, all of them concerning the topic "porous materials for a green future" We were able to share and discuss the role of porous material as solutions to current environmental and energy problems from different perspectives.

After the official opening of the conference by Prof. Nataša Zabukovec, the first plenary talk by Prof. Valentin Valchev took place. Here he gave exciting insights on extra-large pore zeolites, their characterization, and structure stabilization by healing point defects. In the parallel sessions, there were various exciting topics to discover zeolite mesostructuration for Performance Improvement, adsorption isotherms interpretation, confinement role in MOF/Zeolites, novel synthesis routes, and many other captivating subjects. In addition to the exciting lectures and oral presentations, the short and poster presentations led to fruitful discussions and new ideas. After a successful first day of scientific talks, we shared a lovely evening at the welcome reception.



The second day started with a remarkable presentation from Prof. Bert Weckhuysen, dealing with the challenges of catalytic conversion of plastic waste and how to use zeolites to transition from linear to circular production routes for polymers.

In the parallel session dealing with NMR as a tool for porous materials investigation, I presented my current Ph.D. work on NMR characterization of SILP

materials, a promising porous material that could help bridge the gap between homogeneous and heterogeneous catalysis ("Solid-state NMR spectroscopic investigation of supported fluorinated ionic liquids for interface-enhanced supported ionic liquid phase catalysts"). In addition, the research from Dr. Edi Dib, winner of the young researcher award, on ^{29}Si NMR studies from a theoretical and experimental point of view is also a highlight of the day.

On the third day, the Cronstedt Winner Lecture took place; this was a tandem presentation between Prof. Jiří Čejka and Prof. Wieslaw Roth, dealing with two-dimensional zeolites' origin, developments, and perspectives. In the afternoon, Prof. Pegie Cool summarized the advances in porous titanium-based photocatalysts for green applications in her plenary talk.

On the last day of the conference, the keynote speaker Prof. Paolo Falcaro showed his impressive work on Metal-Azolate Frameworks (MAFs) as compatible matrixes to encapsulate, protect and deliver biomacromolecules and enable its application in diverse fields such as drug delivery and biocatalysis.

After four days of excellent and insightful science presentations and discussions, the time to go back arrived. Thanks to the Max Buchner Research Foundation for awarding me the travel grant to present my work, listen to awesome science and exchange ideas with impressive scientists.