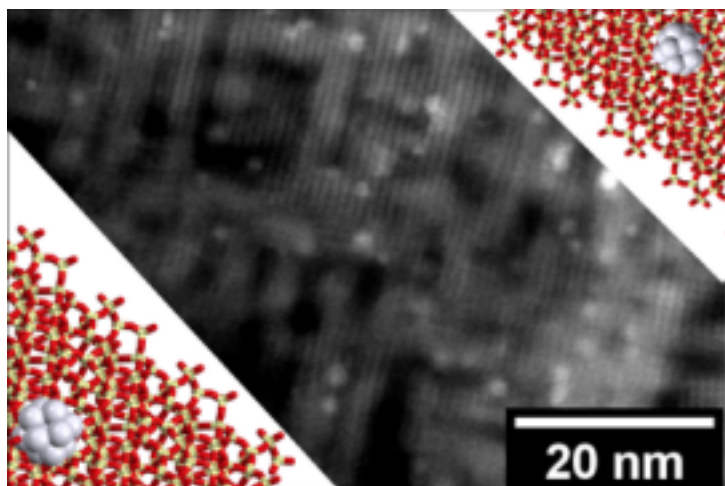

Materials for Heterogeneous Catalysis Group (Dr. Pavla Eliášová)



Dr. Pavla Eliášová's group focuses on the **development of new materials for heterogeneous catalysis**, particularly for **photo- and electrocatalytic processes in solar fuel production**.

The team concentrates on the **conversion of carbon dioxide into hydrocarbons and alcohols**, as well as **on water splitting for hydrogen generation** – processes that represent potential pathways toward alternative energy sources.

The team works on the **synthesis and characterization** of two-dimensional transition metal carbides/nitrides known as **MXenes**, and hierarchically porous **zeolites**, which find applications in **heterogeneous catalysis and environmental processes**, including photo- and electrocatalytic solar fuel production.

Pavla Eliášová obtained her **Master's degree in Chemistry, Geology and Environmental Protection from Palacký University in Olomouc** and her Ph.D. in Physical Chemistry from the **Faculty of Science, Charles University**, where she worked in the group of Professor Jiří Čejka. She gained postdoctoral experience at the **Institute for Basic Science in South Korea** and completed research stays in the **USA, the United Kingdom, and France**. Since 2016, she has been working at the **Department of Physical and Macromolecular Chemistry, Faculty of Science, Charles University**, and at the **CUCAM** research centre.

Dr. Eliášová is a laureate of the **L'Oréal-UNESCO For Women in Science Award 2023**, was listed among the **Top Women Scientists in the Czech Republic 2023 by Forbes**, and received the **Czech Head Award 2014** and **Neuron Impuls Junior Award 2016**. She is the author and co-author of 39 publications, and her **h-index is 20**. She also received the **Werner von Siemens Award 2018** in the category "The most important result of basic research" and the **Bedřich Hrozný Award for Creative Work 2016**, both awarded to a team of which she was a member. In addition, she was awarded the **Josef Hlávka Prize for the Best Students and Graduates 2015**, the **Dean's Prize for Graduates 2014**, and **1st Place in the Jean Marie Lehn Prize for Chemistry for PhD Students 2013**.