

Open PhD Position (*PhD#8*):

Porous ceramic frameworks for CO₂ utilization

What we offer:

The doctoral school **CO₂Refinery** targets to train *one-carbon-engineers* who will work together on the development of technologies to efficiently utilize CO₂ as a carbon source to make a broad variety of products using chemical and biological catalysts.

CO₂Refinery offers excellent scientific research, combined with a multi- and interdisciplinary curriculum (lectures and lab rotation) and a dedicated supervision and mentoring program. The PhD students are in the center of attention and their training and scientific advancement is the key to a successful implementation of this program.

CO₂Refinery will be carried out in the framework of 10 individual PhD projects. For project #8, TU Wien is offering a position as university assistant (Pre-Doc) for 30 hours/week, limited until April 2025.

This announcement represents a particular activity associated to the female researcher proliferation plan at TU Wien; it aims specifically at increasing the number of female scientists, consequently only applications by females will be considered.

What the project will be about:

The primary aim of PhD project #8 within CO₂Refinery is the development and implementation of **new approaches** towards generating **ceramic materials with graded and/or hierarchical porosity**, with direct applicability in various fields of CO₂ utilization. The focus will be set on the development of new templating methods towards the fabrication of monolithic structures as well as towards obtaining spherical particulates. In terms of prospective applications, the generated structures will be developed and evaluated for their applicability in catalysis, biosynthesis, and in fluid-bed-based conversion processes in close collaboration with other CO₂Refinery researchers and PhD students active in these areas.

What you can offer:

- Completion of a **master or diploma curriculum** in Chemistry, Technical Chemistry, Materials Science, or related
- **Lab experience** in materials processing (ideally ceramics), inorganic materials chemistry, and materials characterization (structural, chemical, and mechanical property investigation)
- Basic knowledge and interest in designing and implementing **new experimental setups**, ideally experience in data acquisition and instrument control (e.g. LabView)
- **Scientific experience**: Presentation, scientific writing, publications, conference attendance.
- Excellent written and verbal communication skills, and a safe command of **English**
- **Personal skills**: independence, creative thinking, systematic and structured work approach, hands-on mentality, team spirit
- Willingness to participate in **teaching activities** and supervision of students

More information at www.tuwien.at/en/co2refinery

Official job posting and application at <https://jobs.tuwien.ac.at/Job/166726>
Application Deadline: November 11th, 2021

