Mathematisch-Naturwissenschaftliche Fakultät
der Universität zu Köln
- Der Dekan -

Einladung

zu dem am Donnerstag, dem 09. November 2023, ab 14 Uhr
im Kurt-Alder-Hörsaal
Chemische Institute, Greinstraße 6

stattfindenden öffentlichen

wissenschaftlichen Vortrag zur Habilitation
Institut für Geologie und Mineralogie
(Fach: Geologie/Paläontologie)
von

Dr. Benedikt Ritter

über das Thema

Geoengineering – Carbon mineralisation and storage in rocks

CO2 can be mineralised and sequestered in solid form by a number of techniques, i.e., ex-situ, surficial and in situ mineralisation. In-situ mineralisation uses ultramafic and mafic geological formations for permanent, solid storage, also known as mineral carbonation. It is a natural geological process that plays a crucial role in carbon dioxide (CO2) sequestration. This process involves the chemical reaction between atmospheric CO2 and certain types of rock minerals, resulting in the formation of stable carbonate minerals. As one of the potential tools of geoengineering, carbon mineralisation could be a promising method to mitigate anthropogenic CO2 emissions. This talk should give an overview of the mineralogical and geochemical process of carbon storage in rocks, their geological repository, and should outline advantages and disadvantages of carbon mineralization.

G. Bareth
Dekan