

International Clay Conference, Dublin, Ireland, July 2025

Mehdi Ghasemi, Postgraduate Researcher

Department of Chemical Engineering, The University of Manchester, UK

I would like to extend my sincere gratitude to the Clay Minerals Group (CMG) of the Mineralogical Society of Great Britain and Ireland for awarding me a Travel Bursary to attend the International Clay Conference (ICC 2025), held in Dublin, Ireland. Unfortunately, due to delays in the visa process, I was unable to attend the conference in person. However, I was still able to participate virtually and present my research entitled "Hydrogen-Induced Swelling in Clay Minerals: Molecular Insights into Caprock Integrity for Subsurface Hydrogen Storage."

The research I presented formed part of the proposal previously supported by the CMG Research Grant, which will facilitate my upcoming visit to the University of Edinburgh. Participation in ICC 2025 offered me the opportunity to share my findings with an international audience and to engage with leading



Figure 1: First slide of my presentation experts in the field. The constructive questions and feedback I received from researchers

working on related topics will be invaluable in guiding the next stages of my work.

I am deeply appreciative of CMG's support, which enabled me to disseminate my research at such a high-profile international forum, even in a virtual capacity. This experience allowed me to strengthen my professional network within the clay science community and further highlight the relevance of clay–hydrogen interactions to subsurface energy storage challenges.