JEEP 2023

October 4-6, 2023

Solid-solution equilibria in natural and anthropogenic aqueous environments: the contribution of geochemical modelling to understanding processes

A. Lassin[1]*, L. André[1,2]**

[1]BRGM, Orléans, France;
[2]ISTO UMR7327, Orléans, France
*a.lassin@brgm.fr, **l.andre@brgm.fr

Keywords: Geochemical modelling, Thermodynamics, Water-rock-gas interactions

Water is virtually ubiquitous in both natural and man-made environments. When in contact with solid materials such as rocks, soil and waste, it interacts by promoting exchanges of matter and energy through chemical reactions that modify its properties and chemical composition.

The aim of this presentation is to illustrate how geochemical modelling describes and predicts the main reaction mechanisms involved, its limitations and some of its challenges. This numerical approach is essential in a context of increasing exploitation of the subsoil and groundwater, and tensions around energy production, climate change, critical metal resources and environmental issues.

JEEP 2023

October 4-6, 2023

Preferred type of contribution:

☐ **Poster**

☒ **Oral**

NB : The final decision belongs to the Scientific Committee