

Porous media formed by mixtures of clay platelets and nanospheres

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d001 platelet stacking distance

Discussion and perspectives

- Development of a methodology for structural characterization
- Change in platelet orientation linked to: platelet size, sphere size and number ratio in spheres/platelets
- Cross (clay-platelet) term found different depending on the sphere surface charge and sphere size
- Consistency between SAXS experiment and simulations

- Use other types of clays
- Macroscopic/microscopic parameters: humidity, interlayer cation...
- Link between multi-scale techniques
- Water dynamics multi-scale characterization

[2] Dabat et al. 2019, "A general Orientation Distribution Function for Clay-Rich Media". [1] Bruand et Tessier, 1996 "Structure et porosité des sols".