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Type: **Oral Presentation**

High Resolution Mixing and Reactions in a Porous Column

Tuesday, 23 May 2023 15:15 (15 minutes)

We use high resolution numerical direct numerical simulations to study flow and transport in a full length porous column, solving the Navier-Stokes and advection-diffusion equation to fully resolve all processes at pore scale. The data is used to take a very close look at interfacial and mixing processes at unprecedented resolution, enabling us to accurately track mixing interfaces, quantify incomplete mixing and reactions and study boundary effects to gain a deeper understanding of the origin of anomalous behaviors that cannot currently be measured in laboratory experiments.

Participation

In-Person

References

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Energy Transition Focused Abstracts

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Track Classification: (MS08) Mixing, dispersion and reaction processes across scales in heterogeneous and fractured media