### InterPore2023



Contribution ID: 487 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

# **MDPI Energies Student Poster Award**

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# **Energy Transition Focused Abstracts**

**Primary authors:** Mr ALLAH FARHAT, Saif (University of Notre Dame); Mr HALLACK, Daniel (University of Notre Dame); Dr SOLE MARI, Guillem (University of Rennes, University of Notre Dame); Prof. BOLSTER, Diogo (University of Notre Dame)

**Presenter:** Prof. BOLSTER, Diogo (University of Notre Dame)

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