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Editorial

HIGHLIGHTS FROM THE SECOND ISSUE OF INTERPORE JOURNAL

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It is with great pleasure that we celebrate the growth of the InterPore Journal, made possible by the remarkable support of our colleagues across the diverse field of porous media science and technology. I want to express my sincere gratitude for your contributions—whether as authors, reviewers, or members of the editorial team. I am also delighted to announce the publication of the second issue of the InterPore Journal, which reflects the interdisciplinary and multidisciplinary nature of our field.

In this issue, Guo and Brusseau (1) provide a comprehensive overview of the complexities surrounding the fate and transport of per- and polyfluoroalkyl substances (PFAS) in the vadose zone. Their work highlights the significant challenges posed by these contaminants and discusses how advancements in porous media research and tools can enhance our understanding of PFAS behavior in the environment, aiding in the mitigation of this emerging threat.

Aryana et al. (2) present the outcomes of the recent "Wettability Symposium" held in Wyoming, USA, which marked the 15th International Symposium on Wettability and Porous Media—a conference series with a rich history dating back to 1990. Their report delves into unresolved questions, knowledge gaps, and future research directions aimed at improving our understanding of the multiphase and multiscale processes involved in spontaneous imbibition in tight oil reservoirs.

Zou et al. (3) investigated the transport characteristics in wet and dry cup tests, which are commonly used to assess vapor permeability (or the apparent vapor diffusion coefficient) in construction materials. They demonstrated how the hygroscopicity of materials influences the apparent diffusion coefficient and clarified the physical meaning of the values obtained from these tests. The paper provides novel insights into the physical processes within hygroscopic materials that affect water transport.

Bakhshian and Sahimi (4) investigated the loss of shear strength at frictional asperity contacts in granular fault gouge caused by flash heating. This research is crucial for understanding and describing processes like earthquake rupture propagation. Building on their previous molecular dynamics (MD) simulations, they employed continuum-scale modeling to gain deeper insights into frictional weakening and to verify whether the results from the continuum-scale model align with those obtained from MD simulations.

Shah and Takhar (5) develop a hybrid mixture theory-based model to simulate unsaturated transport within a deforming porous food matrix during frying. Their model, which accounts for volume changes

in the porous food matrix (potato), is validated against experimental data collected during potato frying. Their findings offer valuable insights to help the industry optimize frying techniques.

Augustin and Baumann (6) focused on the critical need for sustainable solutions to address extreme water events, a concern that is increasingly important in our changing climate. Within this context, they explored the suitability of sites for subsurface floodwater storage schemes and developed a transferable workflow for creating suitability maps. This workflow, based on geographic information system (GIS) and multi-criteria decision analysis (MCDA), offers a systematic approach for implementing subsurface floodwater storage systems.

As we conclude this edition, I want to emphasize that your dedication is the driving force behind the continued growth of the InterPore Journal. I encourage you to share your research and insights in future issues, as your contributions are essential to advancing dialogue and progress in our field. I hope you find the papers in this issue both enlightening and inspiring. Enjoy the read!

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