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Type: Oral Presentation

Ion adsorption at nanoscale interfaces out of equilibrium

Thursday 25 May 2023 14:30 (15 minutes)

Liquids under nanoconfinement and non-equilibrium conditions feature in many problems of interest in energy recovery, management of energy dissipation or liquid storage. Nanoconfinement influences the structure of liquids and their response to external fields. In this talk, I will discuss recent investigations, using non-equilibrium molecular dynamics techniques, on the coupling effects between nanoconfinement and external fields. I will illustrate these ideas with two examples: thermodiffusion of aqueous solutions in nanopores and nanotribology of room-temperature ionic liquids in slit nanopores.

Participation

In-Person

References

Bresme, F., Kornyshev, A. A., Perkin, S., and Urbakh, M., "Electrotunable friction with ionic liquid lubricants", *Nature Materials*, 21,848-858 (2022)

Di Lecce, S., Albrecht, T., and Bresme, F., "Taming the thermodiffusion of alkali halide solutions in silica nanopores", *Nanoscale*, 12, 23626-23635 (2020)

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