Séminaire

Mardi 10 mars 2026 à 10h30

Amphithéâtre Henri Benoît

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Nano-fluidics in Membranes Based on Two-dimensional Materials such as Graphene Oxide, MXenes, and MoS2

Nanofluidics deals with transport processes on a length scale of a few nanometers and less. It is important in many domains, such as transport of polymers through a cell membrane, desalination plants. Since a nanometer is almost the size of an atom, electrostatic, mechanical, entropic, and even quantum mechanical phenomena play similarly important roles, giving rise to many new physical phenomena, such as slip lengths, Quantum friction or Bjerrum pairs. Two-dimensional materials such as graphene, graphene oxide, MoS2, or MXenes make it possible to confine liquids to sub nanometer scales and allow to investigate these phenomena. My presentation deals with nanofluidic transport processes of electrolytes confined in macroscopic membranes consisting of layered two-dimensional materials, by putting a focus on graphene oxide.

Les personnes souhaitant rencontrer l'orateur sont priées de prendre contact avec Antonio Stocco.