Center for Enhanced Nanofluidic Transport Phase 2 (CENT2)

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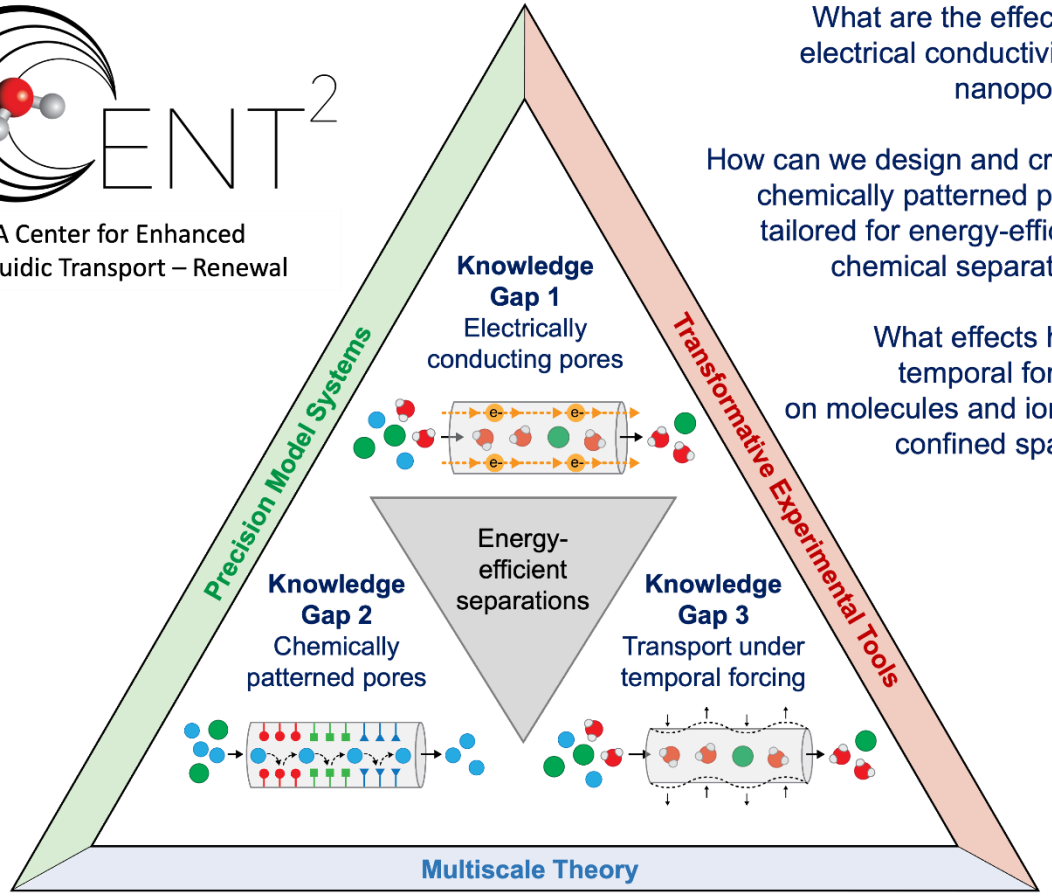
MISSION: To address critical knowledge gaps in our understanding of fluidic flow and molecular transport in extremely narrow pores. CENT2 will establish the scientific foundation for transformative molecular separation technologies impacting the water-energy nexus.

RESEARCH PLAN: CENT2 will apply precision model systems, transformative experimental tools, and predictive multiscale theories to understand fluid flow and molecular transport in single-digit nanopores, to identify conditions for enhanced flow under extreme confinement, to unravel structure of solid/liquid interfaces, and to uncover new mechanisms that deliver unprecedented molecular selectivity.

EFRC: A Center for Enhanced Nanofluidic Transport – Renewal



What are the effects of electrical conductivity in nanopores?

How can we design and create chemically patterned pores tailored for energy-efficient chemical separation?

What effects have temporal forcing on molecules and ions in confined space?

https://cent.mit.edu/

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