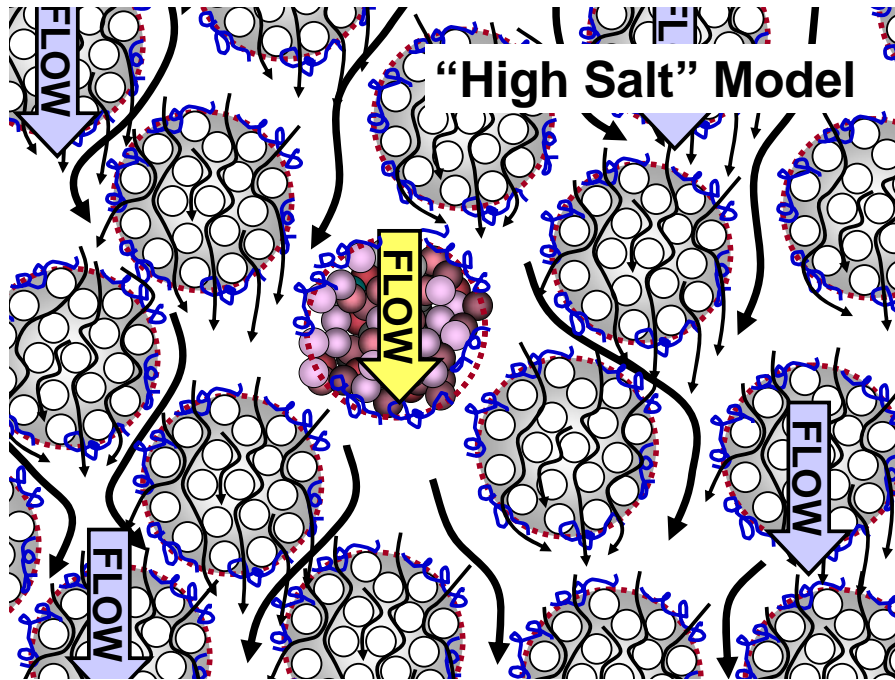


# Electrokinetic Behavior and Passage of Polyelectrolytes and Surfactants throughout Tortuous Micro/Nanopore Media

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Schematic diagram of a bed of silica gel composite particles immersed in aqueous solution with sufficient salt so that ionic double layers can be expressed within the very fine pore spaces

**Initial goal:** Evaluate factors governing the passage of probe molecules into silica gel model substrate

**Innovation:** Novel streaming potential approach to obtain electrokinetic information pertaining to inner, nanopore surfaces of model substrates. Use of dialyzed cationic polyelectrolytes as probe molecules.

**Findings:** A high-mass cationic polyelectrolyte is mainly held out from pores having a nominal size of 15 nm. Desorption from nanopores was observed *in-situ* for the first time.