Physics, Chemistry and Biology of Ions in Aqueous Solution

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Abstract:

Ions play a vital role in many biophysical processes. Although electrostatic interactions between ions and charged residues on biomolecules, polyelectrolytes, etc. can be described with simple laws when the distance separating the charges is large, many interesting and unexplored phenomena occur at small length scales. In my talk, I will discuss some of these phenomena, including ion pairing in water, salt-induced hydrophobic collapse of thermo-responsive polymers in water, and “switching” of polyelectrolyte brushes in electric fields.

Friday, February 17th, 2012 13:00
Room PH 127

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