SIGMA XI The Scientific Research Society

# Seminar

# The Triumphant Return of Arrhenius's Theory of Partial Dissociation for Strong Electrolytes in Y2K

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**For a major part of the last century, thermodynamics of solutions of strong electrolytes (like NaCl) was based on activity coefficients and extensions of the Debye-Huckel (DH) theory based on complete dissociation. However, as the extended equations became too complex to comprehend, they had to be abandoned. A renewed investigation of the earlier ideas of partial dissociation and hydration has now shown that simple equations explain the properties quantitatively from `zero to saturation' (as per Occam's rule!) and that the DH equations are asymptotic laws for infinite dilution.**

Friday April 7, Smith 554

Refreshments and socializing at 3:30 pm

Presentation at 4:00 pm.

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