

Abstract Submitted
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Electrostatic conformation and hydrodynamic properties of a polyelectrolyte studied using static light scattering and viscosity
CHARLES GORDON¹, Millsaps College, DEBBIE RIGNEY², Millsaps College, GINA SORCI, Millsaps College — Using a combination of light scattering and viscometry we are able to observe the changes in the second and third virial coefficients as well as hydrodynamic properties for a continuous concentration gradient. The concentrations of various salts are observed in order to better describe how the molecule behaves when in the presence of different ionic species ranging from simple salts such as NaI to complex salts such as tetraethylammonium chloride. The ionic strength is varied up to 1M which is near physiological conditions. The goal of this work is to obtain a detailed explanation of how these molecules behave so that we will be able to use these models to describe the functions of these molecules within biological systems such as the kidney.

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