

Abstract Submitted  
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**Conformation transition and counterion distribution of single polyelectrolyte chains in aqueous solution**<sup>1</sup> JIANG ZHAO, SHENGQIN WANG, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China — We adopted single fluorescence techniques to study the conformation transition of poly 2-vinylpyridine in its aqueous solution. The first-order conformation transition from extended coil to collapsed globule was observed as the pH value in the solution was raised. The critical pH value was shifted higher largely upon the addition of salt in the solution. The study shows a difference of proton concentration at the chain to that in the solution (a difference of three orders of magnitude), and the addition of salt in the solution increased the local proton concentration at the chain and therefore shift the transition point.

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