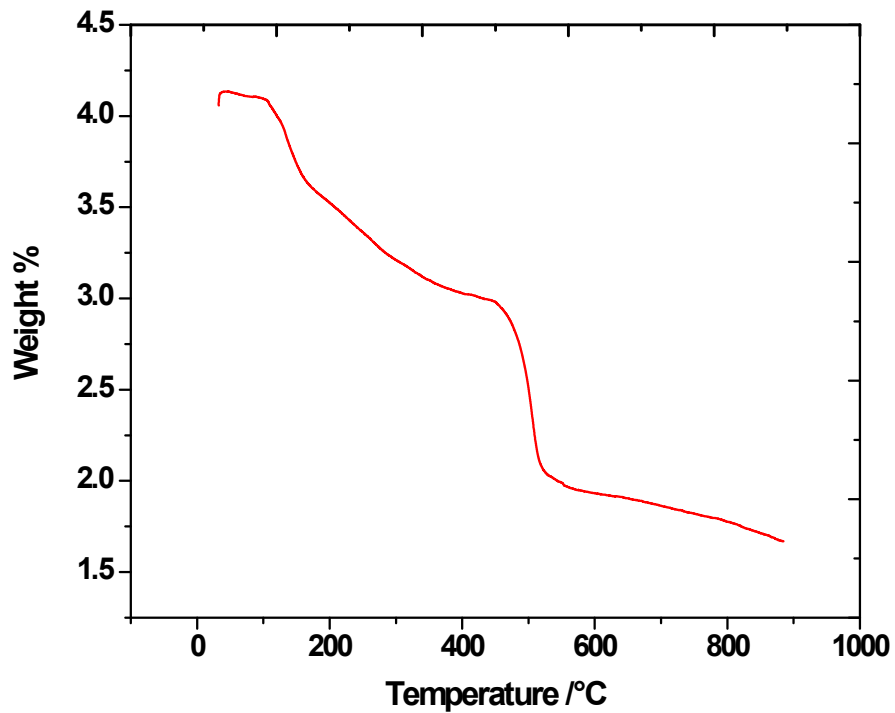


SI1. Anhydrous proton conductivity Vs temperature plot showing Arrhenius behavior from which E_a (activation energy) was calculated.



SI2. TGA (thermogravimetric analysis) with early weight loss at <math><180\text{ }^\circ\text{C}</math> demonstrating the loss of water molecules due to condensation process (anhydride formation) of phosphonic acid groups.