

## **The Influence of Temperature on Molecular Structure of Aqueous Polymer Solutions**

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Preplanting treatment of root systems of plants by special polymeric compositions, which are able to form protective and stimulating coatings on the root systems of plants, is used in a wide interval of temperatures. The water solutions with two basic components in different concentrations has been chosen as the subject of the research: polyacrylamide (PAA) in the form of 6 % polyacrylamide gel (Techn. Spec. 6-01-1049-92), sodium of carboxymethylcellulose (NaCMC Techn. Spec BY 00204056.150-98). The aims of the work were experimental investigation of density by picnometer measurements along the liquid-vapour equilibrium curve, as well as the investigation of temperature dependence of the refractive index, surface tension and the optimization of components correlation according to two criteria: the quantity of evaporated moisture and break of tension of the water solutions with polymeric compositions. These properties of the investigated water solutions were analyzed as a function of temperature and compared with the corresponding properties of pure water.