

STUDY OF RHEOLOGICAL PROPERTIES OF POLYANILINE COMPOSITIONS WITH POLYACIDS

D.A.Karimova*; J.K.Umarova**; F.S.Soibova***

*Navai state pedagogical institute,
UZBEKISTAN

**Navai state pedagogical institute,
UZBEKISTAN

***Navai state pedagogical institute,
UZBEKISTAN

DOI: **10.5958/2249-7137.2021.02442.3**

ABSTRACT

This paper describes how the characteristic viscosity of polyaniline taken as a sample increases with the average increase in the high molecular weight fraction of polyaniline in the reaction medium. It was found that the intrinsic viscosity of the obtained polyaniline samples increases with an increase in the proportion of the average high molecular weight of polyaniline in the reaction medium. This effect can be explained with the binding of lithium ions to macromolecules and unfolding of coils of the polyacrylic acid chain. The unfolding of the coils can be explained by the electrostatic repulsion of ions bound to the polymers.

KEYWORDS: *Polyaniline, Molecules, Composition, Polymer, Rheology, Sample, Viscosity.*

REFERENCE:

1. Melkin AL, Askadiy AA., Kovriga VV. Methods for measuring the mechanical properties of polymers. M. "Chemistry". 1998. p.35.
2. Askarov MA, Avlyanov ZhK, Nabiev AA, Urinov EU, Kalendareva TI. Molecular weight characteristics of polyaniline and poly-ortho-toluidine. Uzbek. Chem. Magazine. 1991;(5):25-28.
3. Karimova DA, Nabiev AN, Yoriev OM. Study of the properties of polymer-polymer complexes and compositions of polyanilines with polyacids "Actual problems of chemistry, physics and technology of polymers". Collection of reports. Republican Scientific Practical Conference. Tashkent, 2009. p.126-164.
4. Feruz T, Dilorom K, Dilnavoz K, Ayzada M. Research of kinetic sorption of Cu_2^+ ions in CuSO_4 solution by composite polymeric sorbents under various conditions. JARDCS. Journal advanced research in dynamical and control systems. 2020;12(6):505-511.
5. Feruz T, Dilorom K, Dilnavoz K. Research of kinetic sorption of Pb_2^+ ions in $\text{Pb}(\text{NO}_3)_2$ solution by composite polymeric sorbents under various conditions. IJARSET. International journal advanced research in science, engineering and technology. 2020;7(6):. 14036-14043.

6. Kamalova D. Technique of laboratory works in physics using information technologies. Science and education. 2020;1(4):145-148.