**SURFACE TENSION OF POLYVINYL ALCOHOL AND ITS BINARY MIXTURES WITH TRITON X-100**

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Keywords: surface tension, polyvinyl alcohol, Triton X-100

Main Topic: Adsorption and interfacial dynamics

Investigation of colloid-chemical properties of the surfactant mixtures with polymers, synergism and antagonism of their action is one of the important directions of colloid chemistry.

Polymeric surfactants and their complexes is promising because of their unique colloidal-chemical properties [1; 2].

The surface tension of polymers and polycomplexes at the water-air interface provides information on the adsorption process, and serves as an indirect method of studying of the structure of adsorbed layers.

The aim of this work was to study the dynamic characteristics of the surface tension of aqueous solutions of polyvinyl alcohol and binary mixtures with Triton X-100.

Formation of the adsorption layer of polymers is a long process, reflected in the slow decrease of surface tension that can be attributed to the slow unfolding of macromolecules in adsorption layers, the penetration of new macromolecules in adsorption layer and the formation of multilayers [3].

According to [4], slow kinetics of surface tension reduction of polymer solutions is related to the slow differentiation at the interface of different polar groups of the macromolecule. In fact, amphiphilic macromolecules coils diffuse to the interface, initially adsorbed by random segments. Then the adsorbed macromolecules due to the differentiation of their segments by polarity undergo conformational changes. This process corresponds to the Rebinder’s adjustment rule [5] and is spontaneously. The depth of this process is determined by the change in the free energy of the system.

The dynamic characteristics of the surface tension of aqueous solutions of polyvinyl alcohol (PVA) and binary mixtures with Triton X-100 (TX-100) at the liquid-gas interface over a wide concentration range was studied. The calculated values ​​of relaxation times and the values ​​of the formation constants of the interfacial adsorption layer allowed determining that the limiting stage of the adsorption of TX-100-PVA is the diffusion of molecules to the liquid-gas interface.

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