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## **POSSIBILITIES OF ALUMINUM REMOVAL FROM AQUEOUS SOLUTIONS USING ORIGINAL POLYURETHANE MEMBRANES**

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### **Abstract**

The supramolecular structures of some polyurethane membranes with different reticulation degrees were prepared, being investigated, with "flexion" treatments and respectively without the "flexion" treatments. The experimental data were performed in order to obtain the mathematical models for membranes behavior during the separation by ultra and micro filtration of colloidal Al(III) and complexed Al(III) from aqueous solutions. In the same time the experimental data allowed to point out the roll of the structure of polyurethane supramolecular ensemble from the membranes. The results of the aluminum separation on the prepared polyurethane membranes were related to the membrane supramolecular nature and structure.

*Keywords:* polyurethane membranes, reticulated membranes, removal of aluminum ions, ultra and micro filtration

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