



EFFECT OF POLYMER CONTENT IN THE MEMBRANE PREPARATION OF NANOCOMPOSITE PA6

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The addition of inorganic particles in the polymeric materials improves the membrane filtration properties and attracted great attention to the development of membrane science and technology. The aim of this work is to prepare microporous membrane from nanocompósitos of PA6. The nanocompósitos were obtained from the melting polymer intercalation and after membranes were prepared by phase inversion technique changing the content of polymer in the solution. The XRD of the nanocomposites and also of the membranes indicated partially exfoliated structures. It was observed that the membranes present a thermal stability. From scanning electronic microscopy it was observed that the membranes prepared from the nanocompósitos presented different structure from the pure polymer and show a better pore density and distribution. From the cross section image it was observed a changing in porosity, the nanocomposites membrane present greater density and also the formation of filtration skin with thickness that is proportional to the content of polymer in the solution. The presence of clay and the content of polymer change the membrane morphology.