



P-12-1263

EFFECTS OF RADIATION PROCESS AND CLAY PRESENCE IN STARCH – PVA FILMS TO DIFFERENT GLYCEROL CONTENT

Duclerc Parra, Monise Almeida

Centro de Química e Meio Ambiente, Instituto de Pesquisas Energéticas e Nucleares

dfparra@Ipen.br

Biodegradable Polymers bases on natural polysaccharides, particularly starch, can be produced at low cost and the large scale. As polysaccharides, themselves do not have plasticity they are often used after chemical modification and/or a blend with a biodegradation synthetic polymer. In this work starch/PVA films are prepared and the swelling among other properties were evaluated in comparison of low clay content formulation. Biodegradable films that absorbers high water volume are suitable for water carrier in technical applications. By using gamma irradiation technique at 10 and 25kGy changes of barrier properties were evaluated. The PVA/Starch films absorbed water during a determined time, after that lixiviation of the plasticizer was verified not depending of the clay content. The plasticizer concentration interferes in the swelling and in the stability time of the films.