The Study of Ionizing Radiation Effect on Polypropylene and Rice Husk Ash Composites

Eduardo F. Alfaro, Djalma B. Dias, Leonardo G.A. Silva

Instituto de Pesquisas Energéticas e Nucleares—IPEN-CNEN/SP. Av. Prof. Lineu Prestes, 2242—Cidade Universitária, 05508-000 São Paulo—SP, Brazil lgasilva@ipen.br

Abstract

The aim of this work was to study the ionizing radiation effect on polypropylene/20% of rice husk ash composites. The composites were irradiated by electron beam at different doses and the mechanical and thermal properties were evaluated using tensile strength, Izod impact, hardness, softening temperature, differential scanning calorimetry (DSC) and thermogravimetry (TG). The results showed that the properties decreased by increasing irradiation dose due to chain scission.

9th International Symposium on Ionizing Radiation and Polymers

163

16477