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### Effect of gamma radiation on PCL/PLLA blends

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Poly(L-lactic acid), PLLA, and poly( $\epsilon$ -caprolactone), PCL, have been receiving much attention due to their biocompatibility, non toxicity and biodegradability in human body as well as in the soil. In the present work, twin screw extruded films of PLLA and PCL homopolymers and their 50/50 (w/w) blend, prepared in Japan, were irradiated with gamma rays from Co-60 at doses from 25 to 500 kGy in Brazil. The aim of this research was to investigate the effects of the ionizing radiation on the chemical structure of the samples, studied by FTIR, and on the crystalline structure of non-irradiated and irradiated samples, by wide-angle X-ray diffraction (WAXD). Even though gamma radiation do not cause sample degradation in the dose range studied to any significant extent to be detectable by FTIR, it was possible to observe slight alteration on the crystallite size of PCL in all irradiated blends by WAXD.

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