고분자/나노튜브 복합재료에 대한 γ-방사선 조사 효과

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Nowadays, the commercial polymers are become more important in industries and in our daily life. Because they have many advantages such as diverse functionality, low cost, lightweight, ease of processing and excellent chemical stability. Over the past few decades, many researchers have found some changes in structural, optical, thermal and electrical characteristics of these commercial polymers under irradiation conditions. Moreover, the incorporation of carbon nanotubes (Single-Walled Nanotubes, SWNTs) into polymers can change their own properties of both two materials. Thus, different ratios of SWNTs were introduced into commercial polymers for improvement of radiation resistance. In this study, we demonstrate commercial polymer/SWNTs composite to check the property changes including radiation protective characteristics under various dose of gamma radiation conditions.