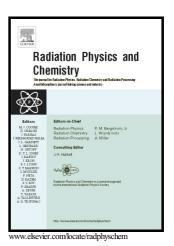
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Flame-retardant EPDM compounds containing phenanthrene to enhance radiation resistance

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Abstract

Ethylene propylene diene monomer (EPDM) compounds with good flame-retardant and γ -ray radiation resistant properties were prepared by adding complex flame retardants and phenathrene. The resultant EPDM formulations have a long time to ignition (TTI > 46 s), a low peak heat release rate (PHRR~341 kW/m²) and a high limited oxygen index (LOI > 30). Effects of γ -ray radiation on the resultant flame-retardant EPDM was investigated. The formulated EPDM is a crosslinking dominated polymer under γ -ray radiation. The

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