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Author: Dr. gang liu
China Academy of Space Technology (CAST), China, elest@126.com

MECHANISM AND KINETIC CHARACTERIZATION OF THE ELECTRON IRRADIATION
INDUCED DEGRADATION OF DGEBA/DICY

Abstract

The DGEBA/DICY was tested under 160keV electron irradiation using a space complex radiation simulating facility. The degradation mechanism was analyzed on the irradiated DGEBA/DICY by means of EPR, FT-IR, and XPS. The kinetic process of irradiation induced degradation of DGEBA/DICY is expressed quantitatively based on the data from FT-IR and XPS. The relationship between the micro-mechanism and the macro-property is proposed, which is allowed for describing the property variation of DGEBA/DICY with electron irradiation fluence.