

Abstract: Cellular polymer films have an enhanced charge storage capability, since the charge drift across the film is hindered by the presence of voids. Furthermore, modulating the morphology of those cellular polymer structures, very high piezoelectric activities can be obtained. In this work, polypropylene (PP) and polyetherimide (PEI) cellular films were produced using novel methods and their morphology, charge storage properties and piezoelectricity were investigated.