

Abstract : The piezoelectricity of commercially available PP cellular (EUH75 and SHD50) has been studied. Their piezoelectric d_{33} coefficients up to 219 pC/N and 196 pC/N were achieved after heat expansion, which are about two orders of magnitude larger than the corresponding coefficients of the samples without heat expansion and over one order of magnitude larger than that of the well-known ferroelectric polymer PVDF. Definitely different influence of corona charging with high voltage up to 60kV in dielectric gas SF6 on the piezoelectric d_{33} coefficient for EUH75 and SHD50 samples was observed. The structural origin of this phenomenon was discussed.