

Abstract: Sandwiched fluoroethylene propylene films with charged, parallel-tunnel voids between the layers, which exhibit high d_{31} piezoelectric activity, were designed. Stripes of such piezoelectrets were exposed to mechanical stress in length direction by a seismic mass excited to vibrations. Due to the piezoelectricity of the films, a current in a terminating resistor is generated. The harvested power across the resistor amounts to about 0.265 mW for a seismic mass of 265 g and an acceleration of 1g. In comparison with other piezoelectret or with poly(vinylidene fluoride) harvesters, the generated power referred to equal acceleration and force, is significantly larger.