Article

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Abstract

Triboelectric nanogenerator (TENG) is an efficient way to convert ambient mechanical energy into electricity to power up portable electronics. In this work, a flexible infrared electrochromical device (IR-ECD) with stable performances was assembled with a TENG for building self-powered infrared detector with tunable intensity. As Driven by TENG, the electrochromic device could be operated in the mid-IR region due to the reversible electrochromic reactions. An average infrared reflectance contrast of 46% was achieved in 8-14 μm regions and as well a clear thermal image change can be observed. This work indicates that the TENG-driven