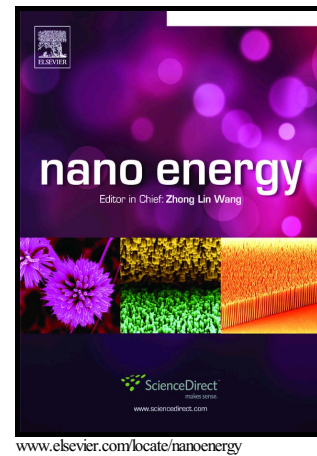


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Electron Blocking Layer-based Interfacial Design for Highly-enhanced Triboelectric Nanogenerators

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ABSTRACT

The key to enhance the output power from triboelectric nanogenerators (TENGs) is to control the surface charge density of tribo-materials. In this study, we introduce an electron blocking layer (EBL) between a negative tribo-material and an electrode to dramatically enhance the output power of TENGs. For the first time, we suggest that the tribo-potential can be significantly reduced by the presence of interfacial electrons; electrostatically induced positive charges at the interface beneath a negative tribo-material can be screened out by the electrons, thereby

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