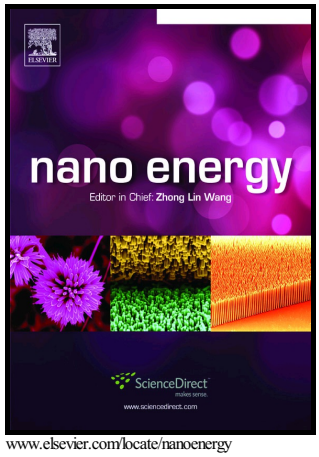

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ABSTRACT

Triboelectric nanogenerator (TENG) as a powerful mechanical energy harvesting technology has major applications as micro/nano-power source, for self-powered sensors and even large-scale blue energy, which would impact the world likely development for the future. In this work, a theoretical model for the sliding-mode TENG with considering the external force applied onto the TENG was presented. Through approximate analytical equations derivation, the output characteristics of TENG with arbitrary load resistance were calculated, including the output power and energy. Based on the relationships between the output characteristics and load resistance or sliding velocity, the force applied on the sliding component of

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