

Figures 32 and 33 show the relationship between the power generation efficiency of the triboelectric nanogenerator and the external excitation frequency and the average meshing stiffness, ...

Wind energy is one of the most promising and renewable energy sources; however, owing to the limitations of device structures, collecting low-speed wind energy by triboelectric nanogenerators ...

In this work, a multi-functional wind barrier integrated by manifold triboelectric nanogenerator (TENG) units is proposed and investigated. The TENG unit consists of two copper ...

Since the enclosure blocked the ionic wind, but should have no effect on other mechanisms, this indicates that the ionic wind generates the thrust. It does not however, show quantitatively that the ...

In this study, a novel system is presented that converts wind energy into electrical energy through triboelectric energy conversion. The proposed system is based on the principle of a Van de ...

Abstract: Harnessing wind energy is of important use for energy security, economic growth, sustainable development and security of environment. But it is also true that wind energy suffers from various ...

Triboelectric nanogenerators are aspiring energy harvesting methods that generate electricity from the triboelectric effect and electrostatic induction. This study demonstrates the ...

We present an optimized flutter-driven triboelectric nanogenerator (TENG) for wind energy harvesting. The vibration and power generation characteristics of this TENG are investigated ...

This paper presents universal design rules and holistic optimization strategies for the network structure of TENGs, which is used as micro and nano-power sources.

The invention relates to an energy collecting device, in particular to a high-performance wave energy power generation device based on a friction nano generator.

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