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Triboelectric Nanogenerators with Transfer-Printed Arrays of Hierarchically Dewetted Microdroplets

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Abstract

Triboelectric nanogenerators (TENG) is of great interest as an emerging power harvester due to its simple device architecture and high efficiency. Despite development of various surface modification techniques for enhancing the performance of a TENG with a given triboelectric pair of materials, a method capable of being used universally on a variety of surfaces and improving the performance of TENGs with diverse surfaces remains a challenge. Here, we demonstrate a novel transfer-printing technique of hierarchically dewetted polymer droplets on various TENG surfaces for performance enhancement of the TENGs. Our method is based on controlled dewetting of a thin supramolecular assembled

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