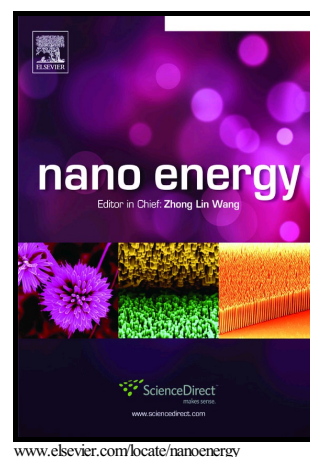


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Traditional Weaving Craft for One-Piece Self-Charging Power Textile for Wearable Electronics

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Abstract

Self-charging power textile (SCPT) based on energy harvesting and energy storing components for developing wearable electronics exhibits great advantages. However, some problems (stability, weaving methods *etc.*) in previous work prevent this kind of SCPT for further application and industrial scale-up manufacture. Herein, in this work, we propose a novel SCPT consisting of a fabric triboelectric nanogenerator (FTENG) and a woven supercapacitor (W-SC) for simultaneously harvesting and storing human motion energy. Utilizing traditional woven craft, this one-piece self-power/self-charging power textile can be easily fabricated by alternating the woven wires/threads. For the energy-generating

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