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Supporting Information for:

Bi_2Te_3-based wearable thermoelectric generator with high power density: from structure design to application

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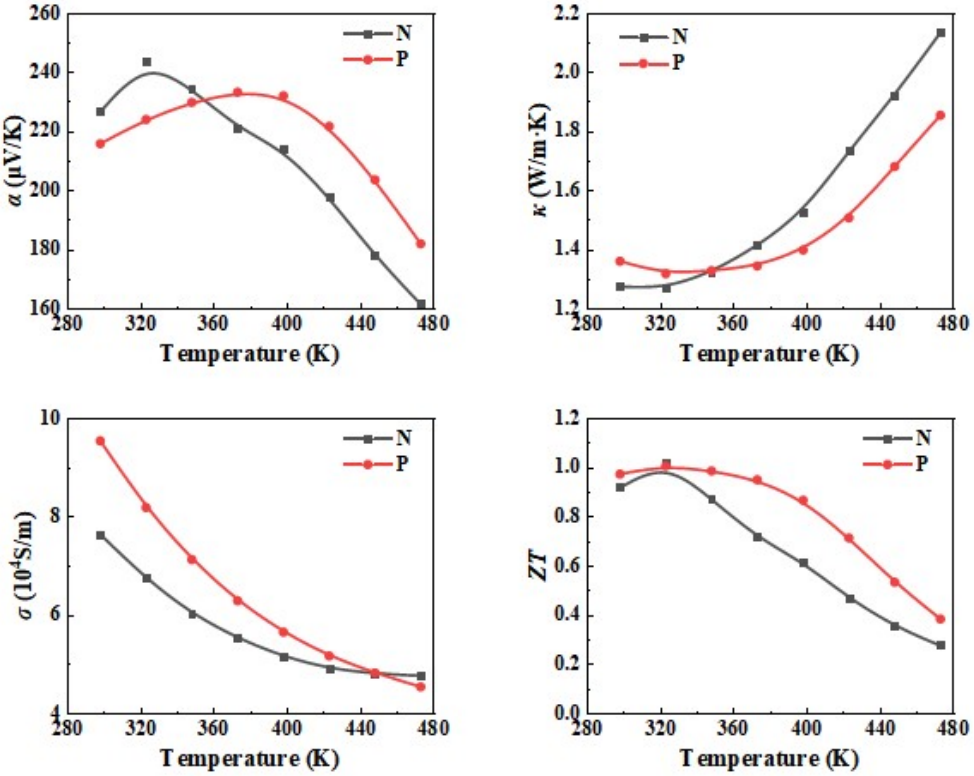
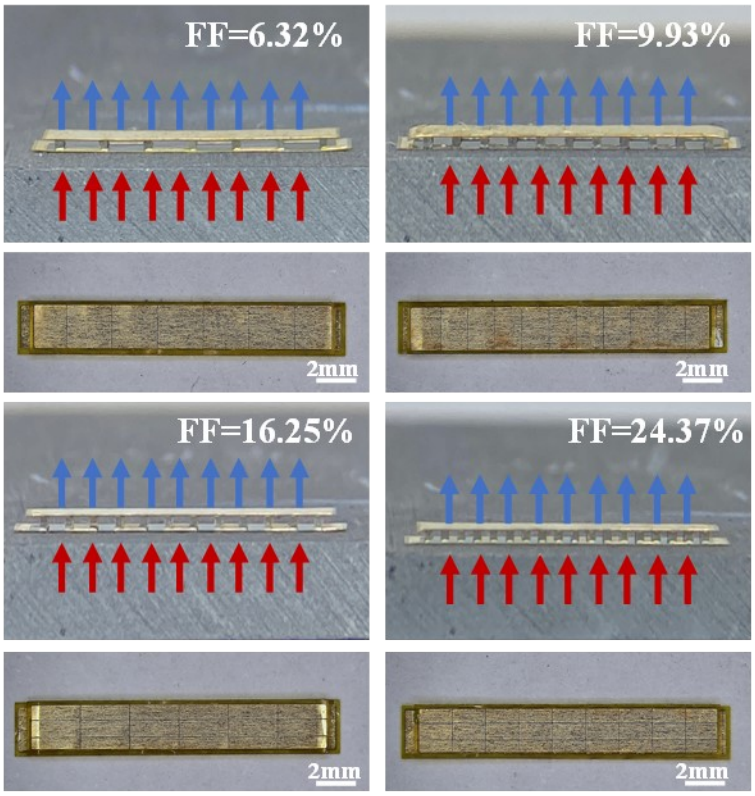


Figure S1. The TE parameters of the P-type and N-type TE legs

A



B

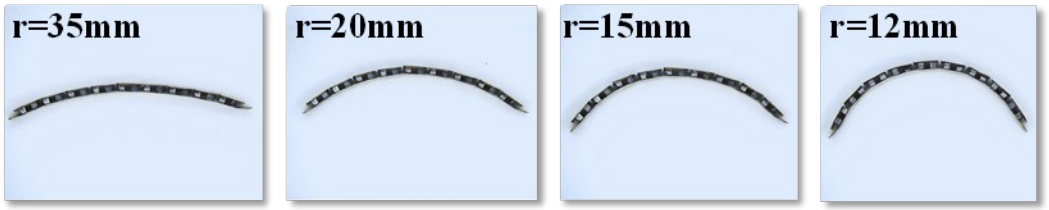


Figure S2. (A) Micro thermoelectric generators with four different fill factors. (B) the values of bending radius during the bending process of generator.

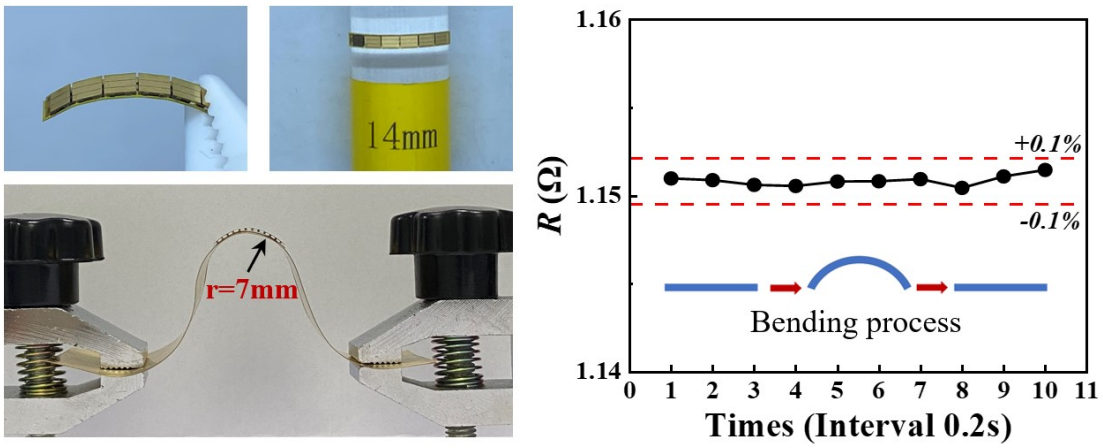


Figure S3. The resistance of the thermoelectric generator (fill factor = 16.25%; 2 × 16 mm^2 in plane, TE leg: 0.4 × 0.4 × 0.5 mm^3) in a bending cycle.

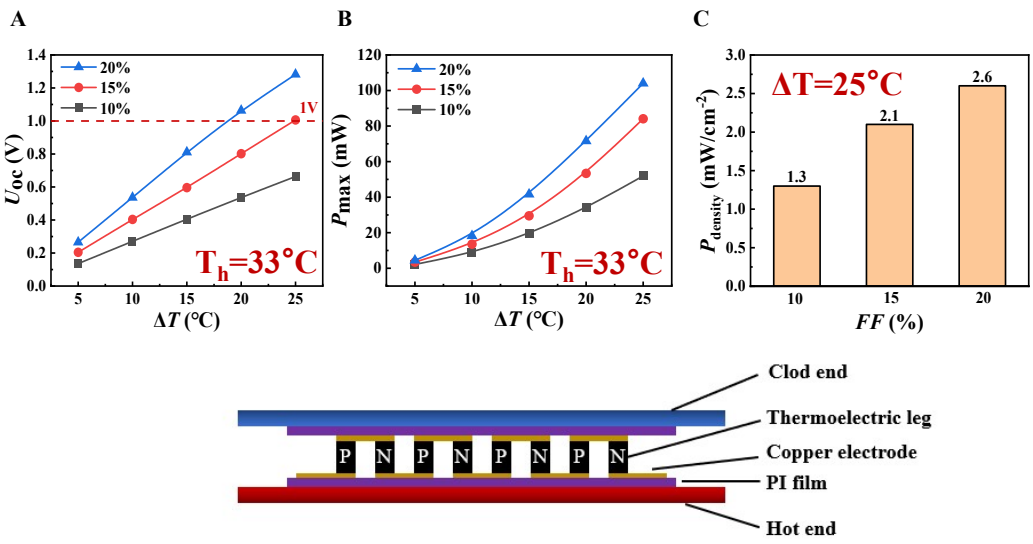


Figure S4. The open circuit voltage and the output power for the thermoelectric generators under different temperature differences (Large area TEG with FF=15%; T_h = 33 °C and T_c = 8 °C).

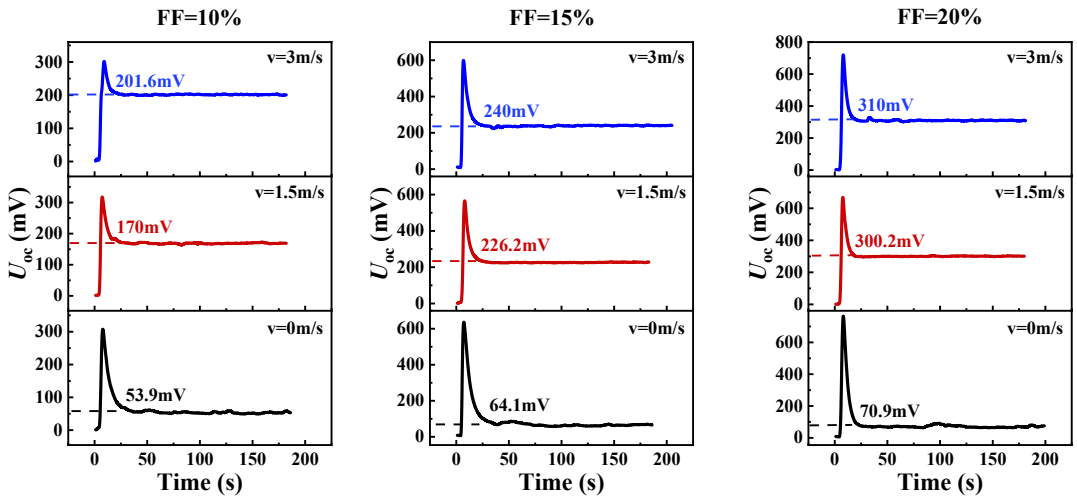


Figure S5. The output circuit voltage of the generators with different fill factors (10%, 15%, 20%) when worn on the arm at different moving speeds (0, 1.5 m/s and 3 m/s).

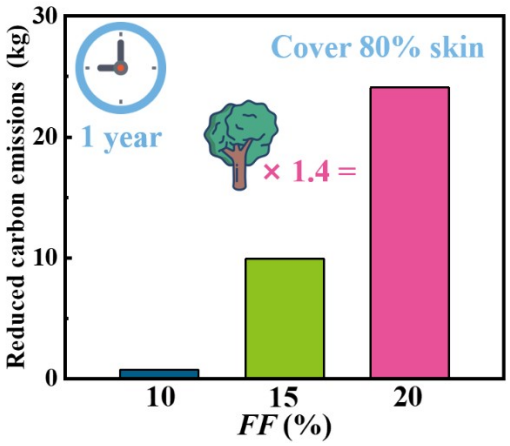


Figure S6. The energy saving and carbon emission reduction capabilities of the wearable thermoelectric generator with 20% fill factor covering 80% skin of the human body for one year.