Supporting Information for:

**High-performance wearable Bi2Te3-based thermoelectric generator**

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**Figure S1.** Finite element model of w-TEG.

**Table S1.** Thermoelectric material properties in the temperature range 303 to 333K.

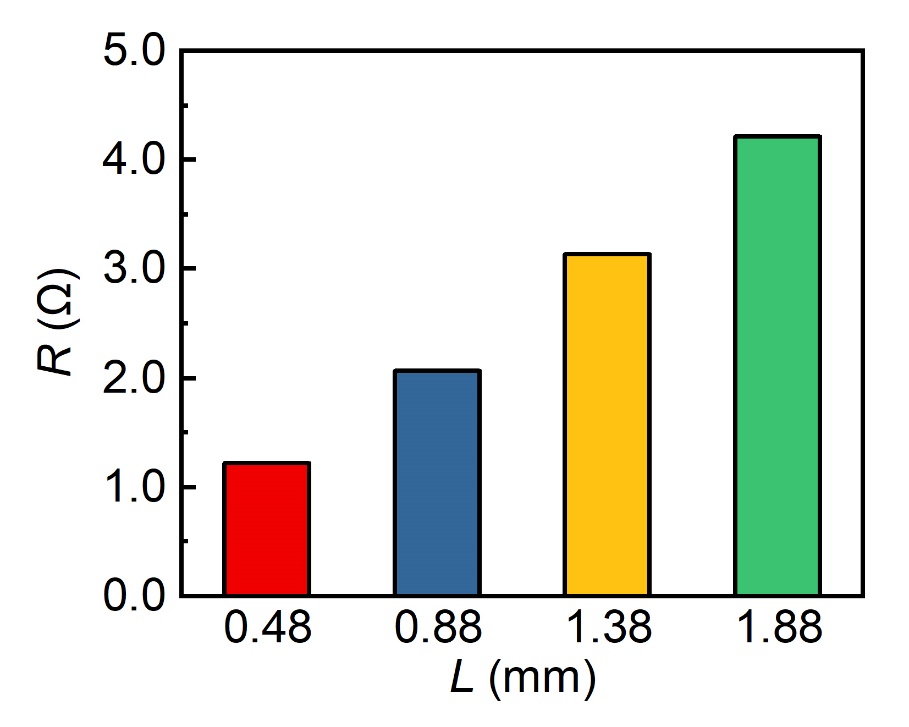
|  |  |  |
| --- | --- | --- |
| Materials | Parameters | Value |
| p-type Bi0.5Sb1.5Te3 | Electrical conductivity  (104 S m-1)  Thermal conductivity  (W m-1 K-1)  Seebeck coefficient  (μV K-1) | 8.19~9.76  1.53~1.58  223~231 |
| n-type Bi2Te2.7Se0.3 | Electrical conductivity  (104 S m-1)  Thermal conductivity  (W m-1 K-1)  Seebeck coefficient  (μV K-1) | 9.91~11.1  1.76~1.81  -214~-212 |

**Table S2.** Material properties used in the simulation.

|  |  |  |
| --- | --- | --- |
| Materials | Thermal conductivity  (W m-1 K-1) | Electrical resistivity  (ohm·m) |
| AlN | 195~270 | -- |
| Cu | 401 | 1.55×10-8~2.78×10-8 |
| Solder  Skin | 55  11.8~14.2 | 1.14×10-7  -- |
| Ag | 420 | -- |

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**Figure S2.** TEGunit and its internal structure.



**Figure S3.** Resistance of TEG with different thermoelectric leg lengths.