Supplementary Information for

Wearable Transparent Thermal Sensors and Heaters based on Metal-Plated Fibers and Nanowires

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Fig. S1 Schematic of the fabrication of the AgNW, Cu, and Ni TCF using (a) cold-sprayed AgNW films and (b) electroplated Cu/Ni films.
Fig. S2 Transmittance $T$ of (a) the AgNW TCF at a scanning speed of 4, 6 and 8 cm·s$^{-1}$, (b) Cu TCF formed at $t_{\text{Cu}} = 3, 5, 7$ and 10 s and (c) Ni TCF formed at $t_{\text{Ni}} = 10$, 20, 30 and 50 s. The distribution of (d) the Cu fibers diameter at $t_{\text{Cu}} = 3, 5, 7$ and 10 s and (e) the Ni fiber diameter at $t_{\text{Ni}} = 10, 20, 30$ and 50 s.
Fig. S3 $T$ of the hybrid TCF of (a) Cu fiber at $t_{\text{Cu}} = 3, 5, 7$ and 10 s and (b) Ni fiber at $t_{\text{Ni}} = 10, 20, 30$ and 50 s. Photos of the hybrid TCF with (c) AgNW/Cu at $t_{\text{Cu}}$ and (d) AgNW/Ni at $t_{\text{Ni}}$. 
(R1-12) **Fig. S4** (a) The relationship of the experimental $R_s$ and $R$ of the Cu/Ni TCF. Transmittance ($T$) versus the theoretical $R_s$ of the hybrid film with (b) Cu Fs and (c) Ni Fs. Figure of merits of (d) the Cu TCF and the hybrid TCF with AgNW/Cu and (e) the Ni TCF and hybrid TCF with AgNW/Ni. $T$ and $R_s$ of the hybrid TCF in terms of (f) the AgNW TCF.
Fig. S5 Electric characterizations of the sensor in response to temperature by the Cu TCF at $t_{Cu} = (a) 3$, (b) 5, (c) 7 and (d) 10 s.