

## ***Supplementary Information***

### **Aluminum/Waterborne Polyurethane Composite Aerogels with Combined Low Infrared Emissivity and Thermal Conductivity**

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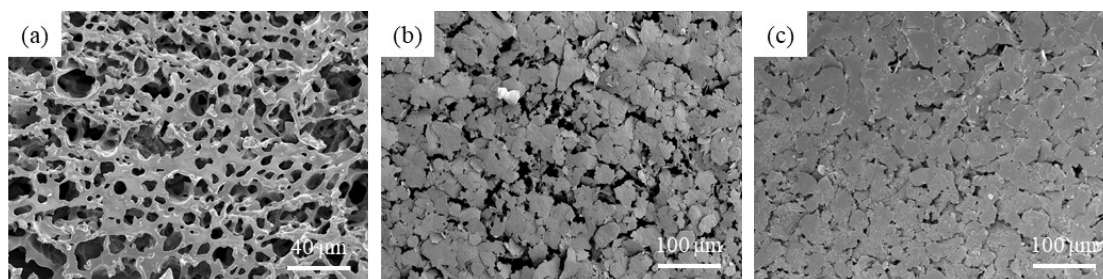


Fig. S1 The bottom surface morphology of (a)  $\text{WPU}_{\text{VF}}$ , (b)  $(0.25\text{Al}/\text{WPU})_{\text{VF}}$  and (c)  $(1.00\text{Al}/\text{WPU})_{\text{VF}}$  aerogels.

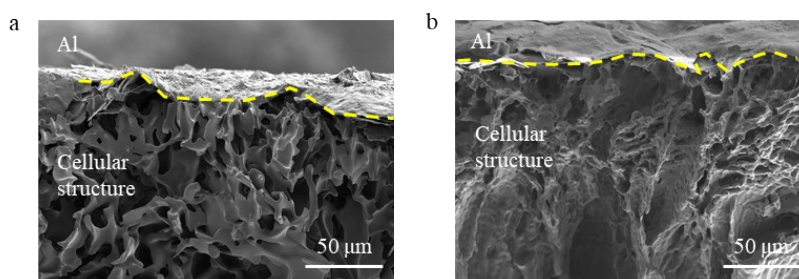


Fig. S2 The cross-sectional morphology of the sedimentation layers of Al powders for the  $(0.75\text{Al}/\text{WPU})_{\text{VF}}$  (a) and  $(1.00\text{Al}/\text{WPU})_{\text{VF}}$  aerogels (b). (The edge of the sedimentation layer is marked with yellow dashed line.)

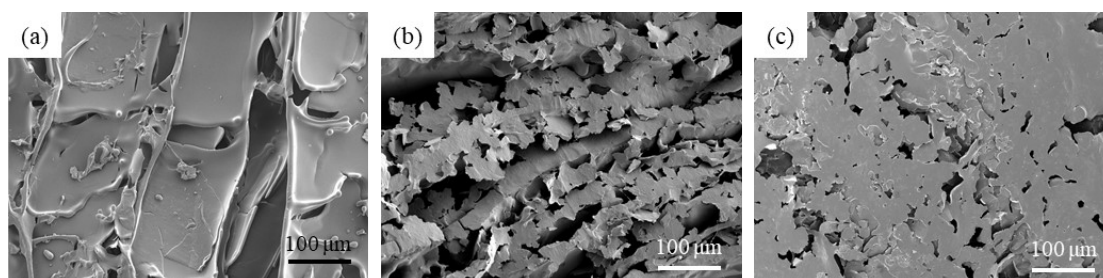


Fig. S3 The bottom surface morphology of (a)  $\text{WPU}_{\text{HF}}$ , (b)  $(0.25\text{Al}/\text{WPU})_{\text{HF}}$  and (c)  $(1.00\text{Al}/\text{WPU})_{\text{HF}}$  aerogels.

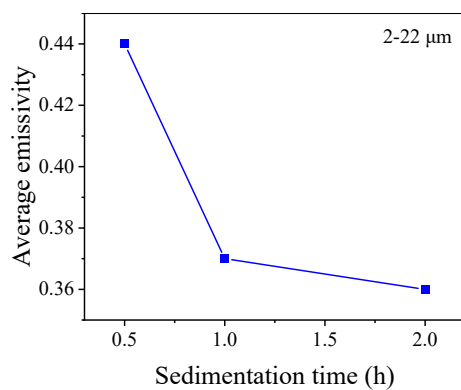


Fig. S4 Average emissivity (2-22  $\mu\text{m}$ ) of  $(0.75\text{Al/WPU})_{\text{VF}}$  aerogels as a function of sedimentation time.

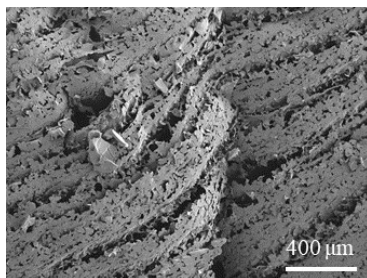


Fig. S5 The bottom surface morphology of  $(0.75\text{Al/WPU})_{\text{HF}}$  aerogel.

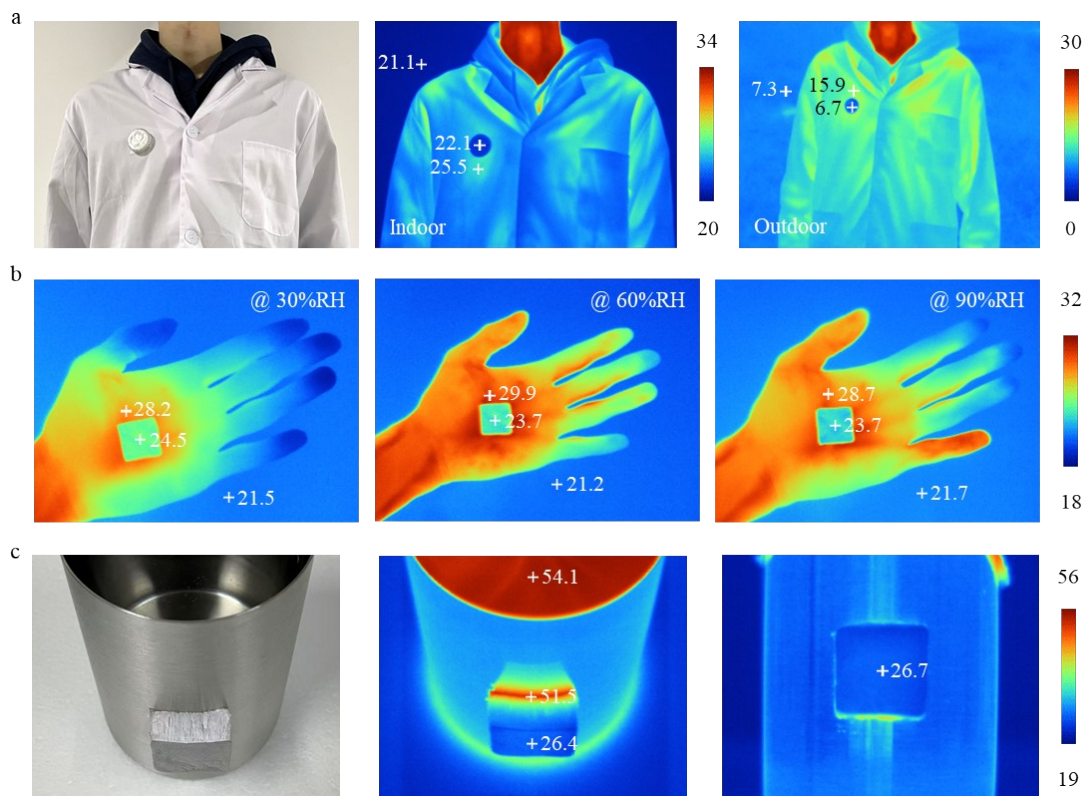


Fig. S6 (a) Indoor and outdoor infrared stealth performance of (0.75Al/WPU)<sub>VF</sub> aerogel on clothes. (b) Infrared stealth performance of (0.75Al/WPU)<sub>VF</sub> aerogel under various humidity. (c) Integrated (0.75Al/WPU)<sub>VF</sub> aerogel with a 65-mm-radius stainless steel cup containing water of 54 °C. Digital photograph, infrared image of the perspective-view and infrared image of the front-view are shown.

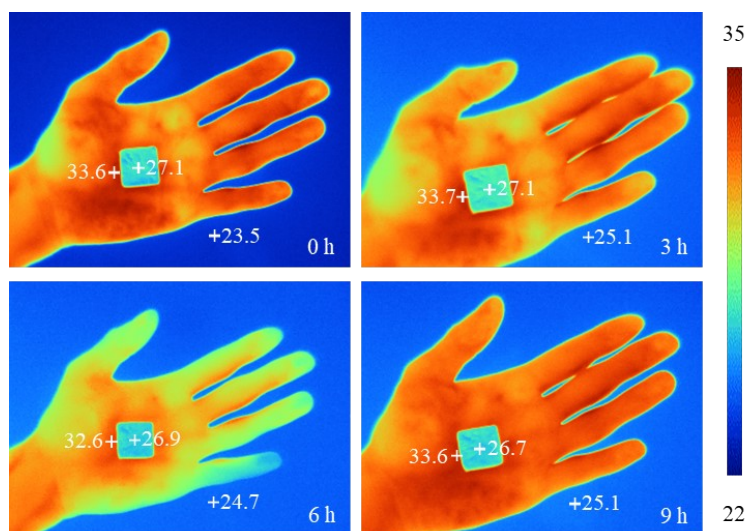


Fig. S7 Steady-state infrared images of (0.75Al/WPU)<sub>VF</sub> aerogel after 0, 3, 6, 9 h in a 23 °C, 90% relative humidity (RH) environment. (The infrared image of 0 h was taken under 30% RH.)