

## Micro-nano dual-scale embedded graphene/Ag architectures for flexible low-voltage-driven transparent electrothermal films

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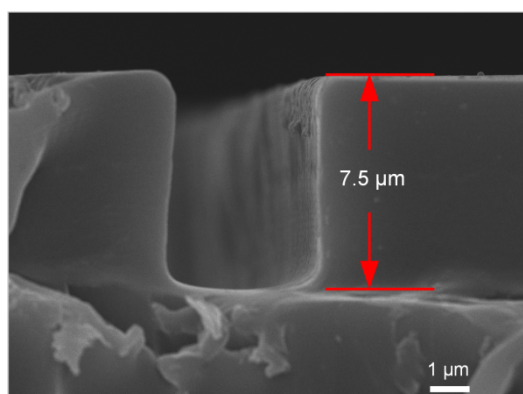
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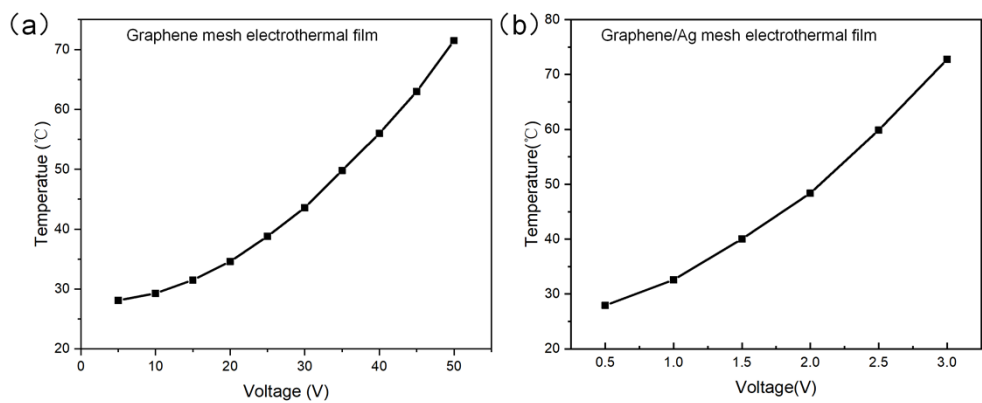
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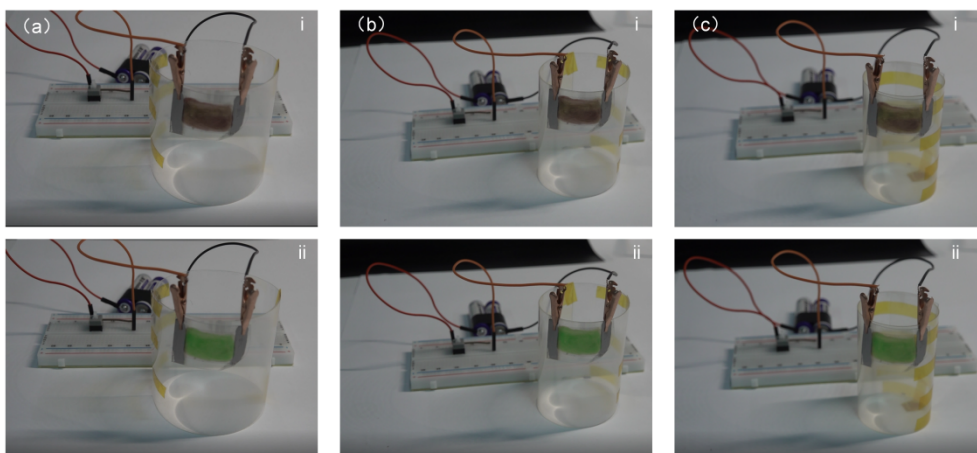
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**Fig. S1.** The the cross section image of the microchannel.



**Fig. S2.** The relationship curves between the surface temperature and the applied voltage.



**Fig. S3.** The smart window attached to the structures with different curved surfaces.