Supporting Information

Bio-inspired Semi-transparent Silver Nanowires Conductor based on

Vein Network with Excellent Electromechanical and Photothermal

Properties **

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Fig. S1 Optical images of an LED illuminated by using a vein-AgNWs-PDMS conductor prepared through three dip-coating cycles as the connecting wire at different strain during the 1st stretching.



Fig. S2 Resistance curves of vein-AgNWs composite (black) and vein-AgNWs-PDMS composite (red) under stretching.



Fig. S3 Optical microscope images of vein network showing the change of structure during the process of stretching-relaxing: (a) vein network structure under the natural state. (b, c) the structure of the vein network under different stretching. (d) the structure of the vein network after stress release.



Fig. S4 Time-dependent temperature variations of vein-PDMS and vein-AgNWs-PDMS composite irradiated by an 808 nm NIR light irradiation at a distance of 10 cm under laser light with power of 1 W.