

Supporting Information

Flexible and temperature-responsive hydrogel dressing for real-time and remote wound healing monitoring

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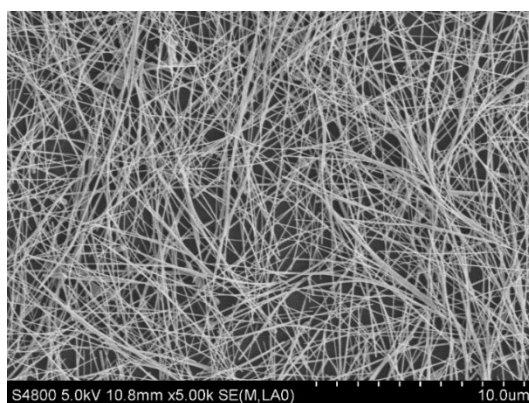


Fig. S1 Photograph of prepared AgNWs

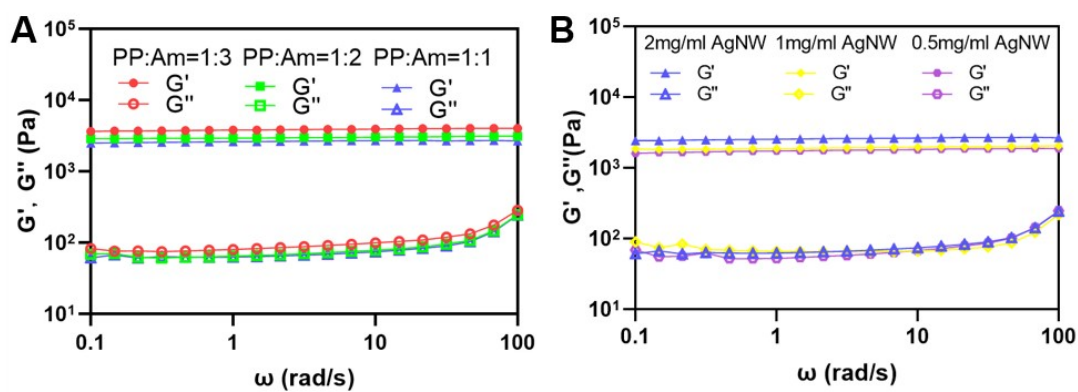


Fig. S2 (A) Frequency sweeps of PP hydrogels with different contents of PAM. (B) Frequency sweeps of PPA hydrogels with different contents of AgNWs.

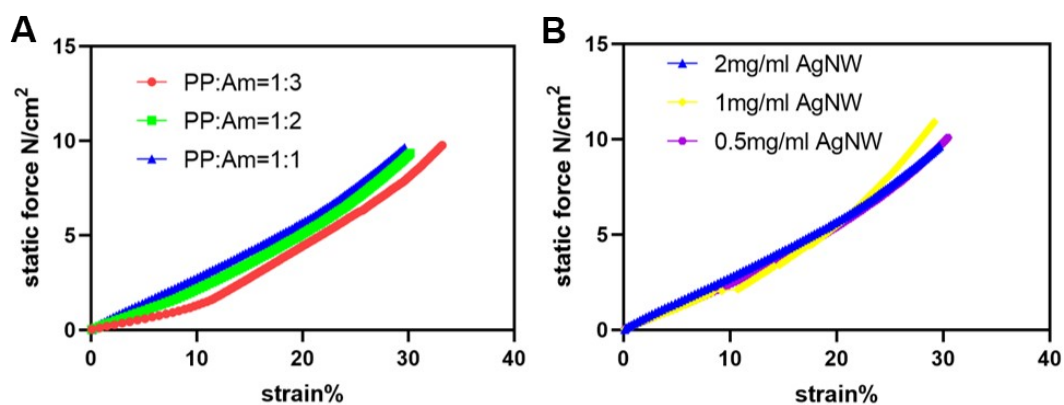


Fig. S3 (A) Strain-force curves of PP hydrogels with different contents of PAM. (B) Strain-force curves of PPA hydrogels with different contents of AgNWs.

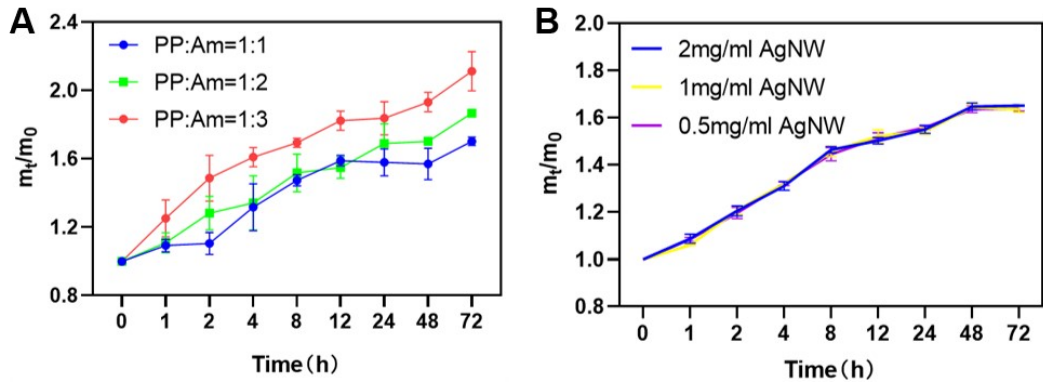


Fig. S4 (A) Swelling properties of PP hydrogels with different conctes of PAM. (B) Swelling properties of PPA hydrogels with different conctes of AgNWs.

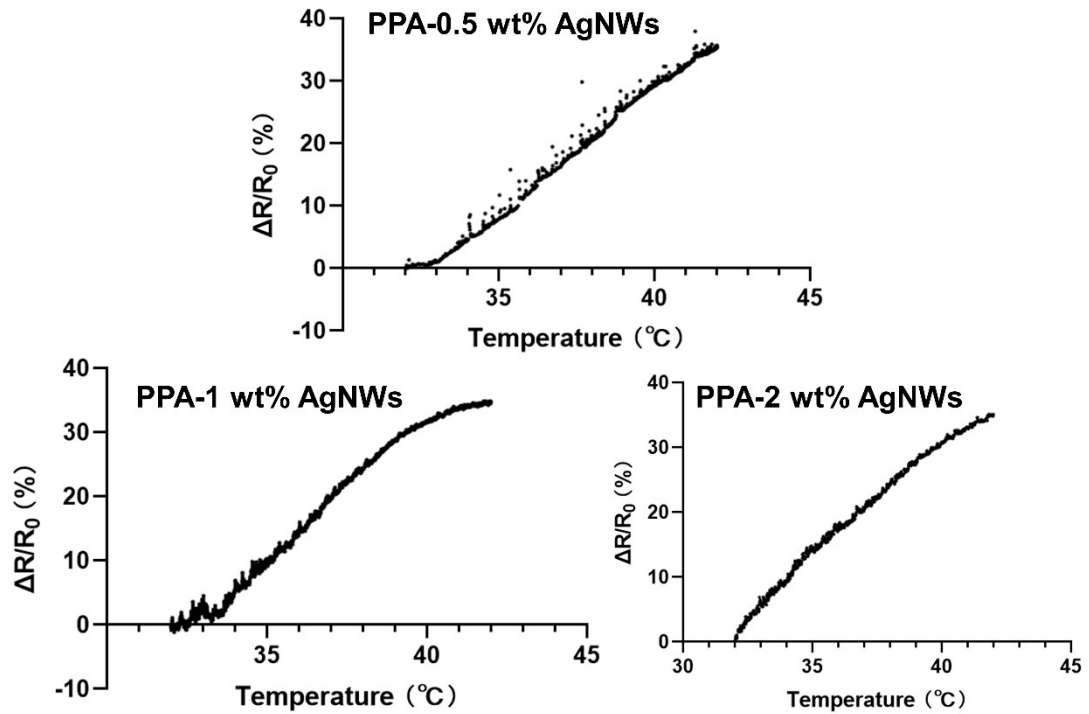


Fig. S5 Relative resistance change of PPA- AgNWs (0.5, 1 and 2 mg/mL) with the increase of temperature.



Fig. S6 Photographs of assembled PPA-Ag hydrogel matrix with real-time and remote monitoring module on a rat wound healing.

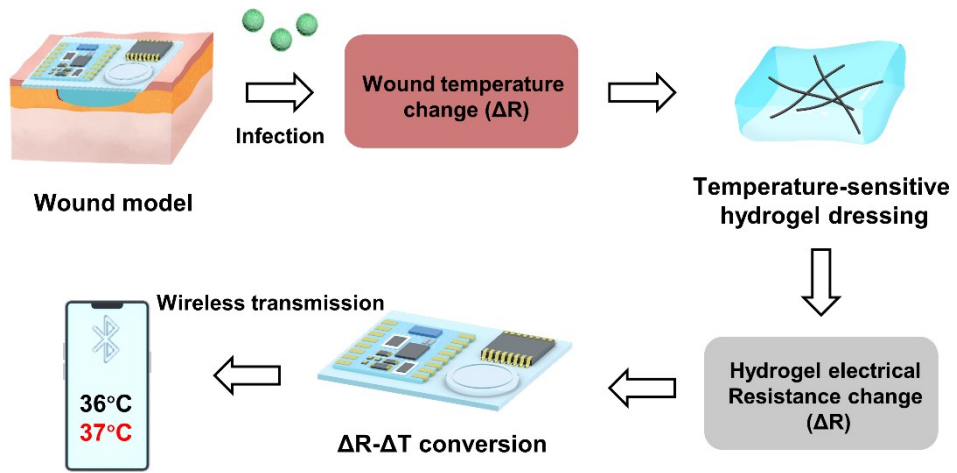


Fig. S7 Schematic of real-time and wireless monitoring of wound temperature by PPA-Ag hydrogel dressing

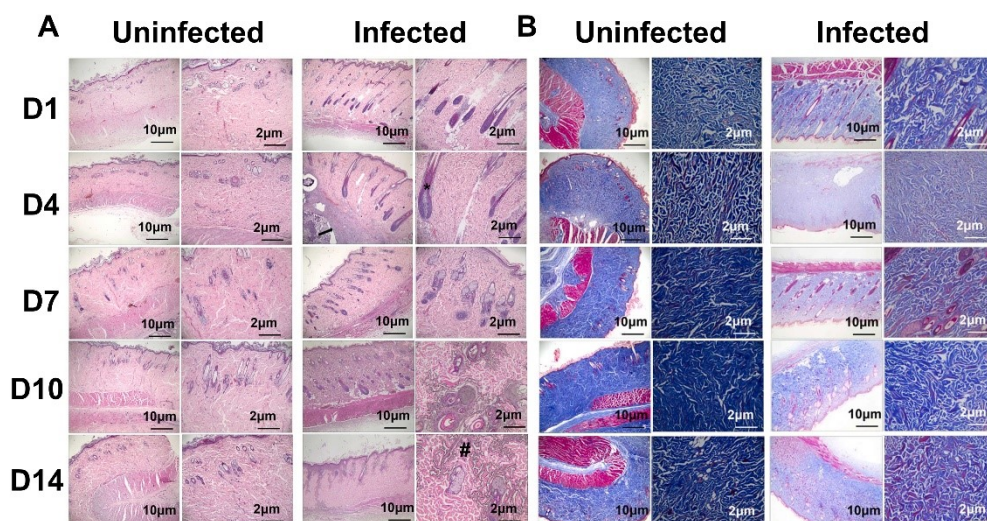


Fig. S8 (A) Histological analysis of the tissues of wounds by H&E staining on day 1, 3, 7, 10 and 14. (B) Histological analysis of the tissues of wounds by Masson's trichrome staining on day 1, 3, 7, 10 and 14.

Table S1. Composition of the PPA hydrogels

Code	PP (mg)	Am (mg)	MBA (μL)	TEMED (μL)	APS (μL)
PPA-1	25	25	15	10	10
PPA-2	17	33	15	10	10
PPA-3	12.5	37.5	15	10	10

Table S2. Composition of the PPA-Ag hydrogels

Code	PP (mg)	Am (mg)	AgNWs (mg)	MBA (μL)	TEMED (μL)	APS (μL)
PPA-Ag-0.5	17	33	0.25	15	10	10
PPA-Ag-1	17	33	0.5	15	10	10
PPA-Ag-2	17	33	0.75	15	10	10