

Supporting Information

High-Stability AgNWs/Gum Arabic Composite Electrodes for Flexible Organic Light-Emitting Devices

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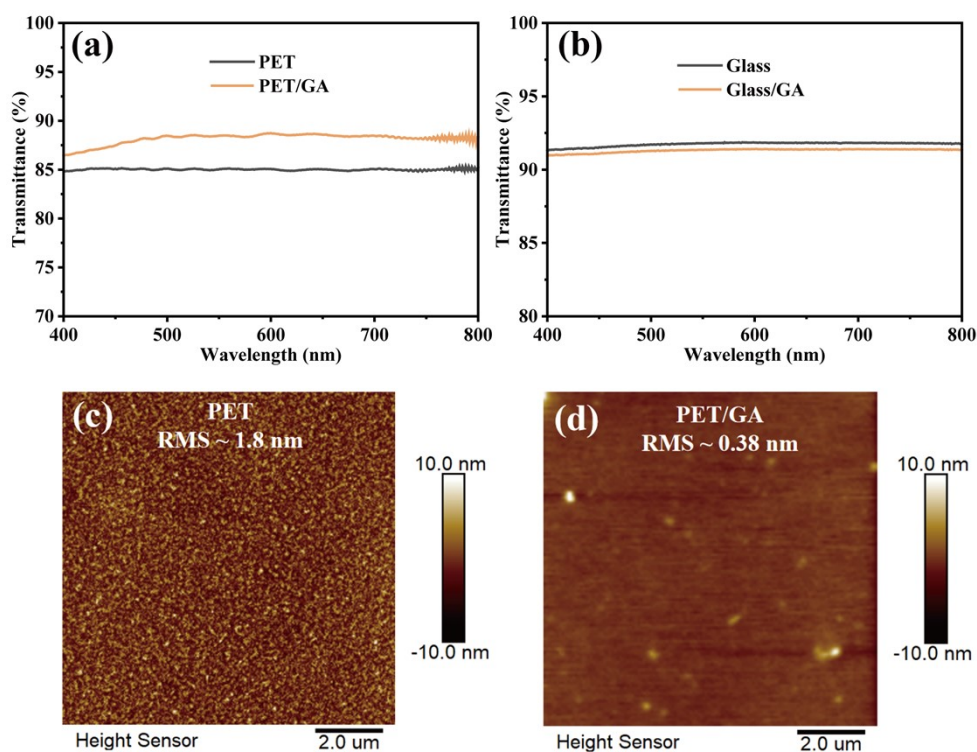


Fig. S1. (a) Transmittance of PET and PET/GA. (b) Transmittance of Glass and Glass/GA. AFM images of (c) PET and (d) PET/GA.

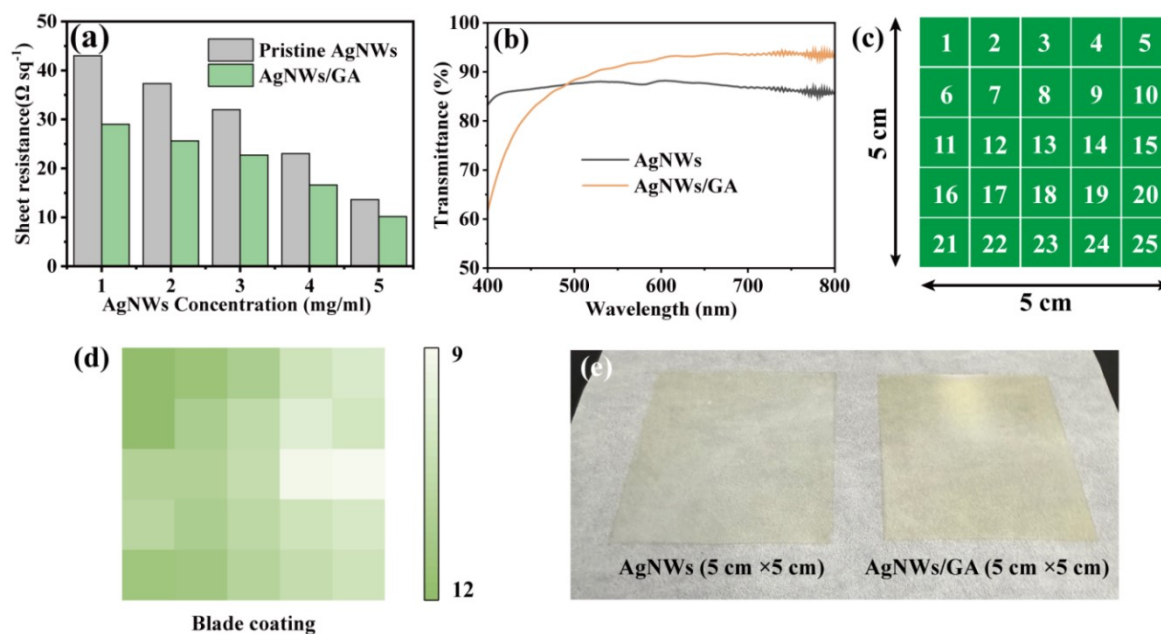


Fig. S2. (a) Variations in R_{sh} of pristine AgNWs electrodes with varied initial R_{sh} after GA (80 mg/mL) modification. (b) Transparency of pristine AgNWs and AgNWs/GA electrodes (5 cm×5 cm). (c) 25 regions of 5 cm×5 cm AgNWs/GA electrode. (d) Heat map image of the resistance distribution. (e) Photograph of large-area electrodes.

Table S1. Comparison of the optoelectrical properties of our electrode with other reported AgNW-based electrodes

Electrodes	$T_{550\text{nm}}$ (%)	R_{sh} (Ω/sq)	FoM	Ref
AgNWs/Chi	90.0	11.4	305.6	1
AgNWs/GO	83.5	11.9	167.9	2
AgNW/ZnO	88	10	286.1	3
AgNWs/MOF	95.1	25.8	266.9	4
AgNW/TiO ₂	85.6	13.2	178.3	5
AgNWs/AZO-SG	95	18	498	6
AgNWs/Propolis	93.0	15	341.5	7
AgNWs/Ti ₃ C ₂ T _x	95.0	15	485.8	8
AgNWs/Mxene	92.5	15.9	298.2	9
AgNWs/GA	98.3	22	1013	This work

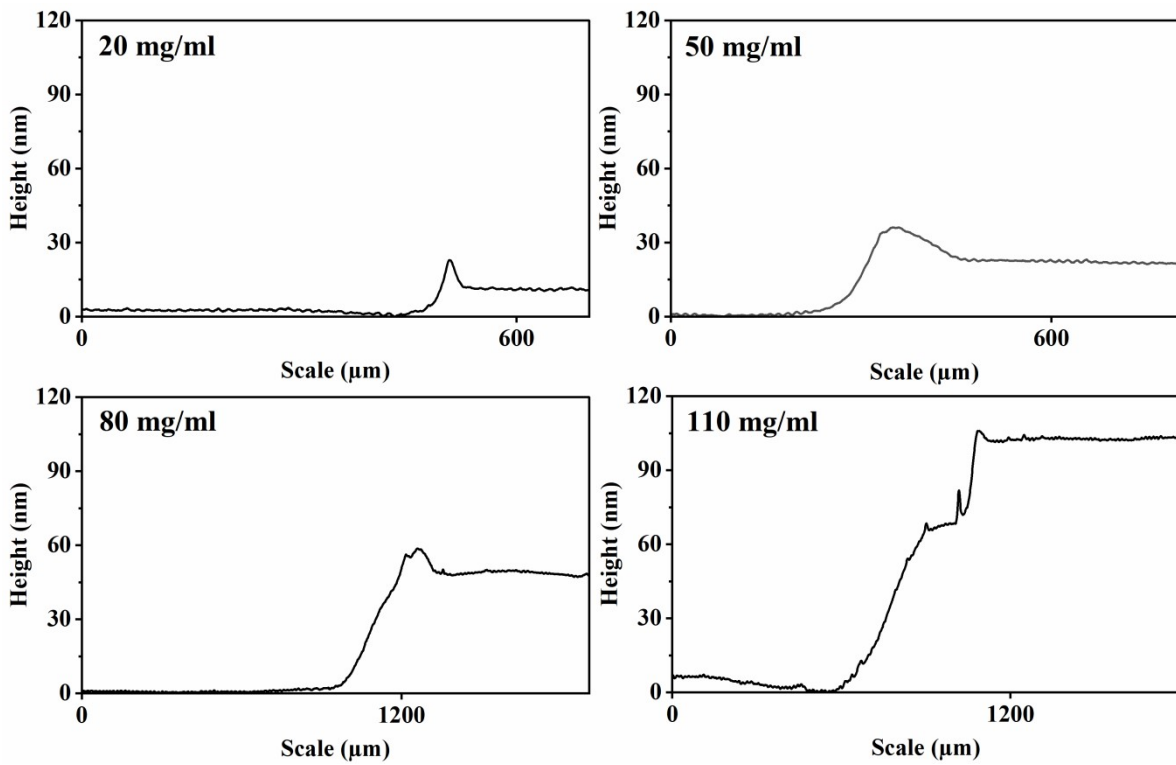


Fig. S3. Profile curves of GA films spin-coated from different concentration solutions.

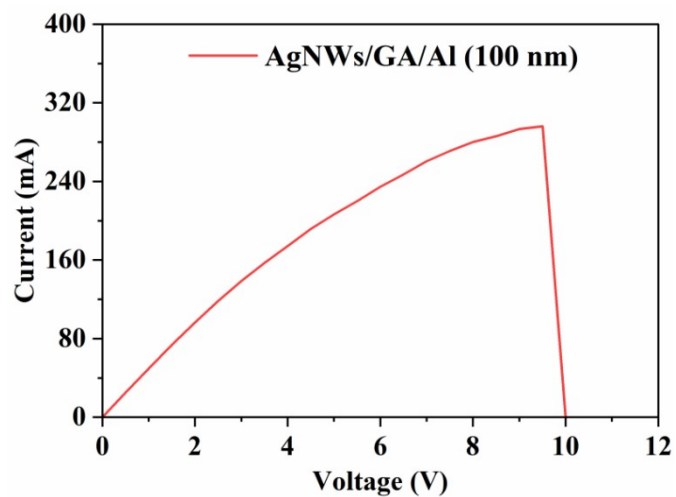


Fig. S4. Current -voltage characteristic curve of AgNWs/GA/Al.

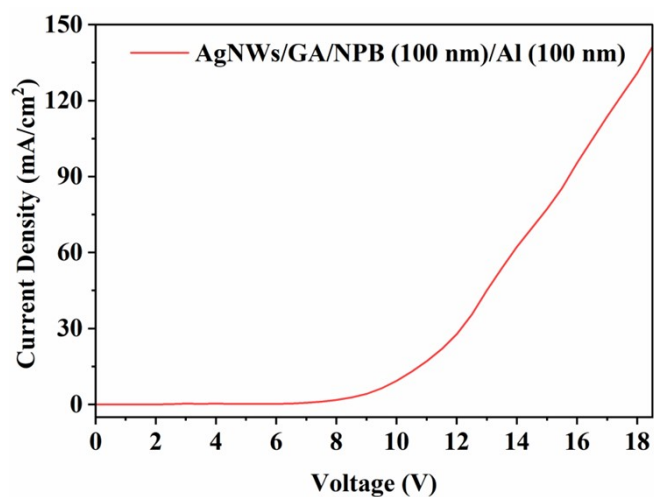


Fig. S5. Current density-voltage characteristic curve of the hole-only device.

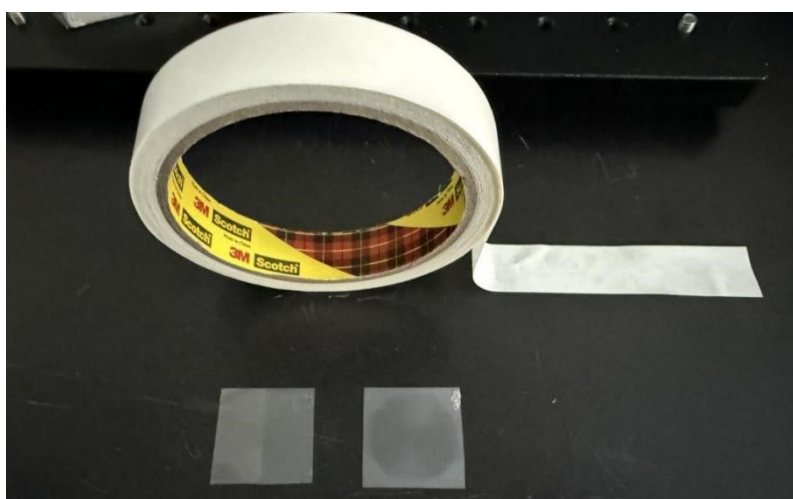


Fig. S6. 3M tape tests of electrodes (left: pristine AgNWs electrode; right: AgNWs/GA composite electrode).

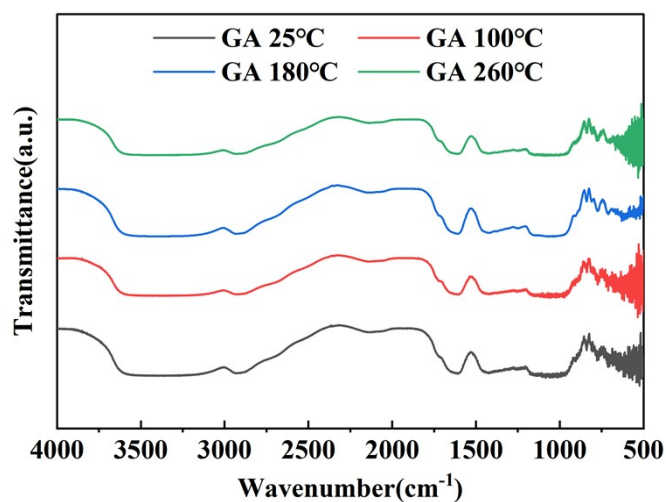


Fig. S7. FTIR spectra of the GA film after heating at different temperatures.

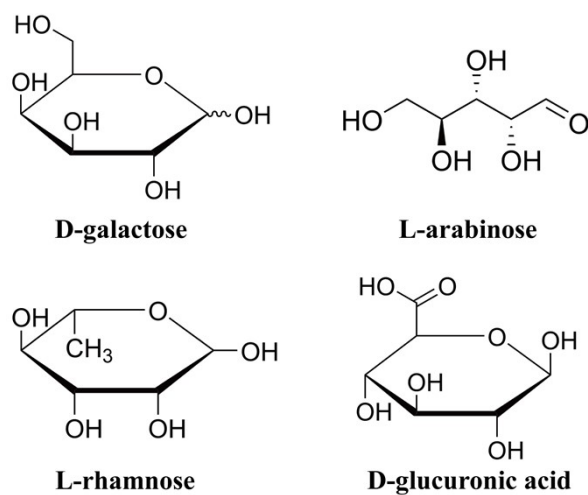


Fig. S8. Chemical structures of the main monosaccharides in GA

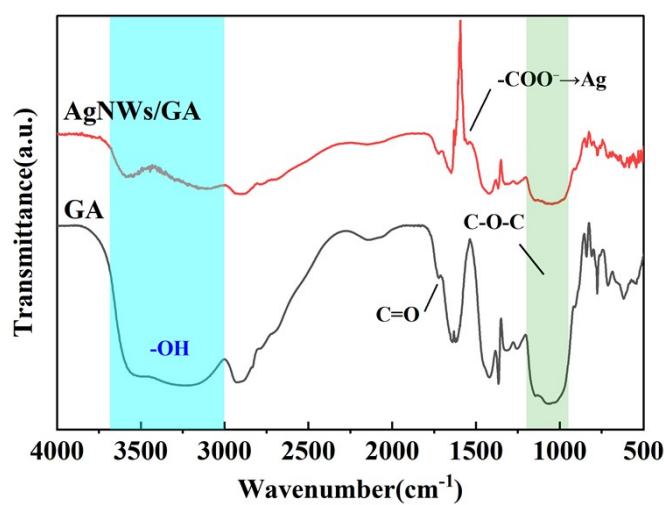


Fig. S9. FTIR spectra of GA and AgNWs/GA.

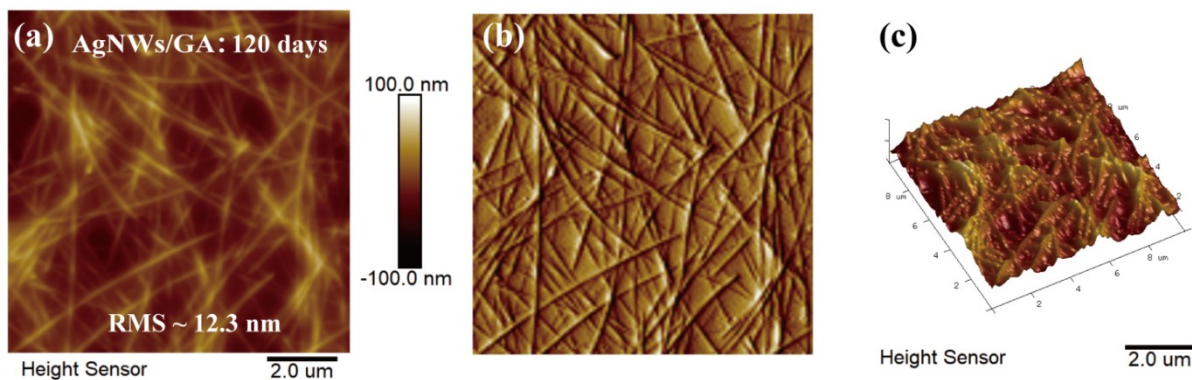


Fig. S10. AFM images of the AgNWs/GA electrode after being stored for 120 days at ~ 80 °C and $\sim 80\%$ relative humidity.

Reference:

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