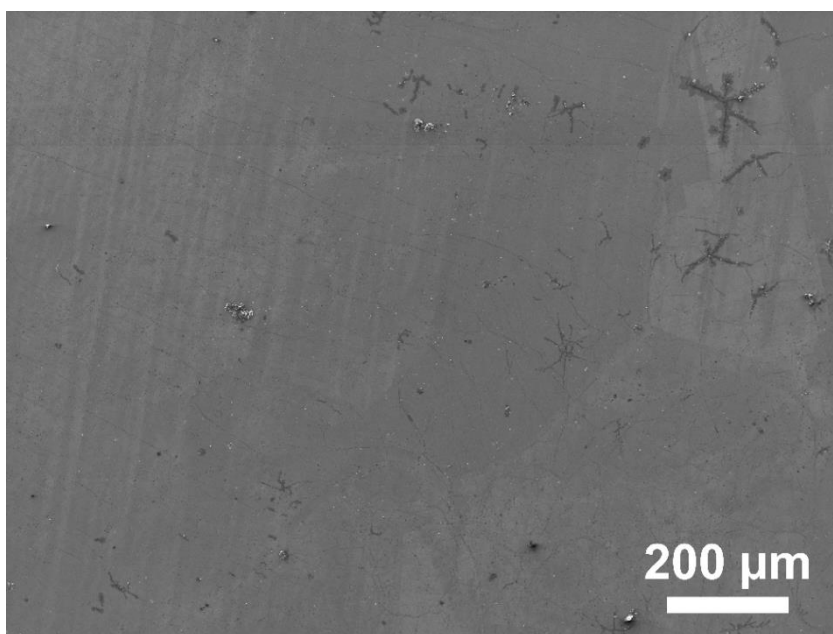


## Electronic Supplementary Information (ESI)

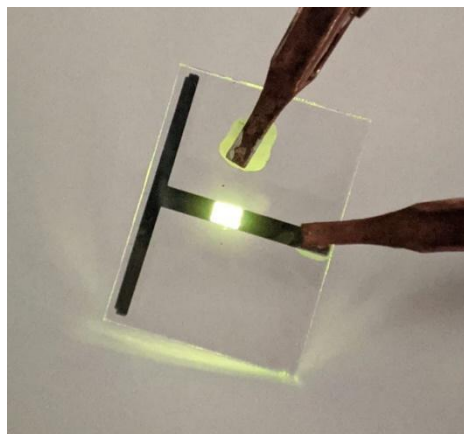
### Flexible OLEDs with Graphene Electrodes on Renewable Cellulose Platforms

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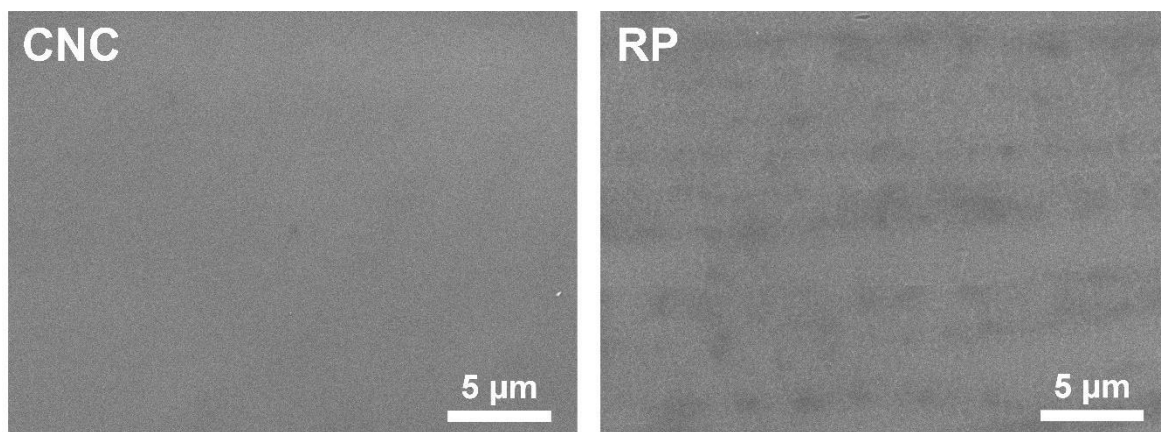
This ESI contains SE-SEM images of single-layer graphene CVD samples over copper and cellulose-based flexible substrates, AFM images of CNC/PMMA/graphene electrodes, and glass and CNC-OLED under working conditions.



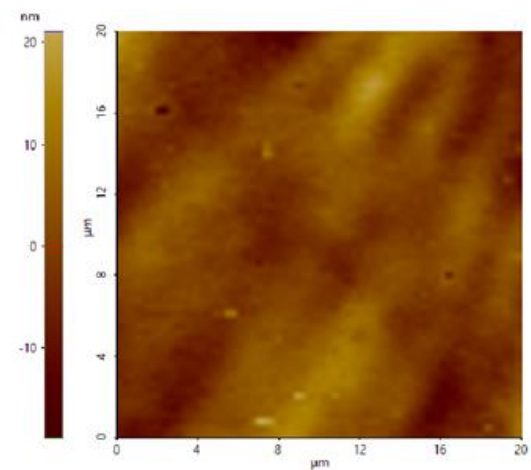
**Fig. S1.** Low magnification SE-SEM image of the single-layer graphene film on the copper substrate.



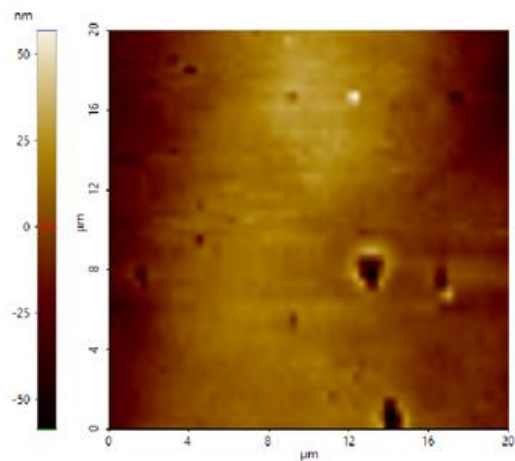
**Fig. S2.** Photograph of the quartz-supported OLED.



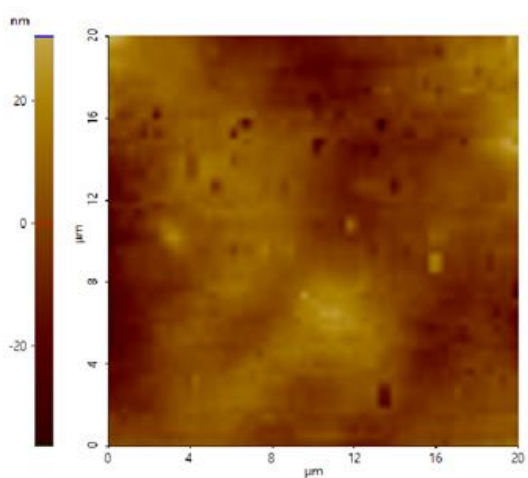
**Fig. S3.** SE-SEM images of CNC and rolling paper.



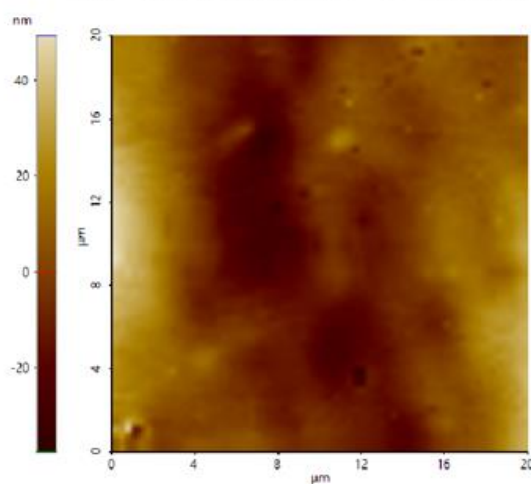
$R_q = 5.335 \text{ nm}$ ;  $R_a = 4.222 \text{ nm}$



$R_q = 16.244 \text{ nm}$ ;  $R_a = 13.523 \text{ nm}$

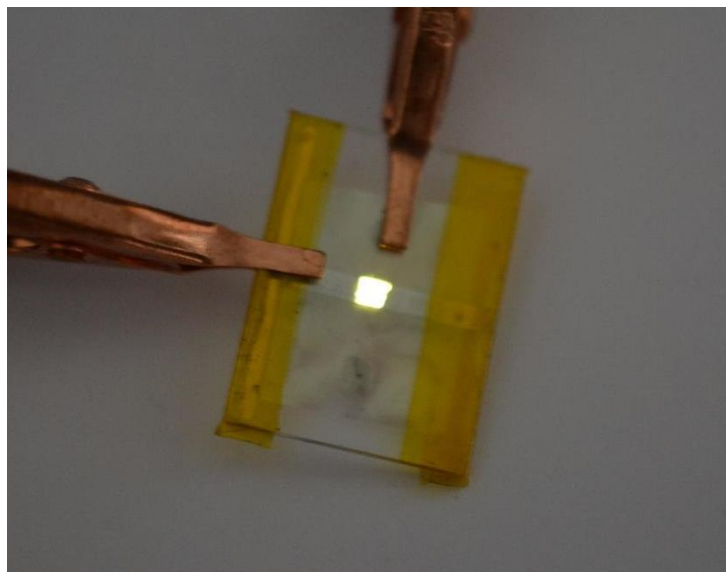


$R_q = 9.157 \text{ nm}$ ;  $R_q = 7.403 \text{ nm}$



$R_q = 15.713 \text{ nm}$ ;  $R_a = 12.661 \text{ nm}$

**Fig. S4.** AFM images of CNC/PMMA/Graphene electrodes and their roughness regarding root-mean-square roughness ( $R_q$ ) and roughness average ( $R_a$ ).



**Figure S5.** Photograph of CNC-OLED.