

## Supplementary Information

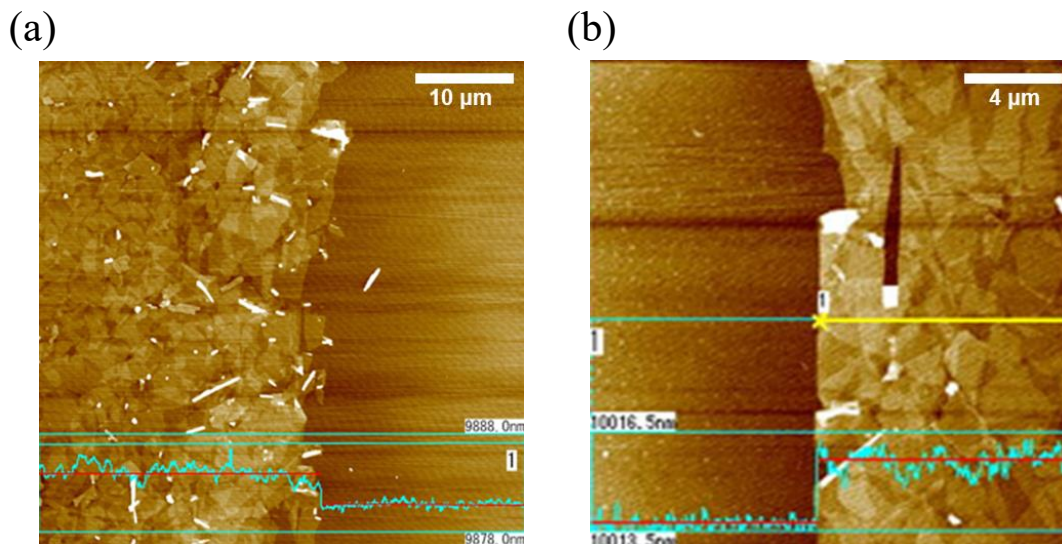
### Solution-Processable Reduced Graphene Oxide Template Layer for Molecular Orientation Control of Organic Semiconductors

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and Ken-ichi Nakayama\**

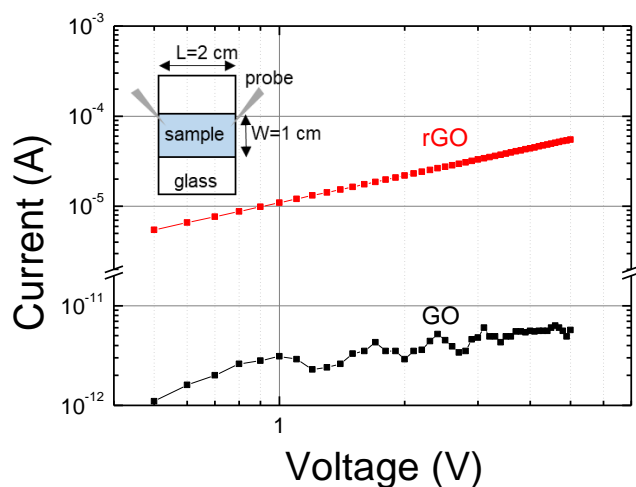
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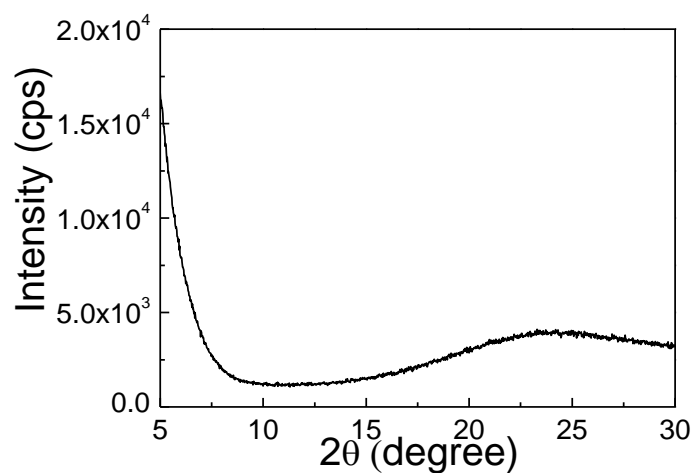
## Supporting Figures



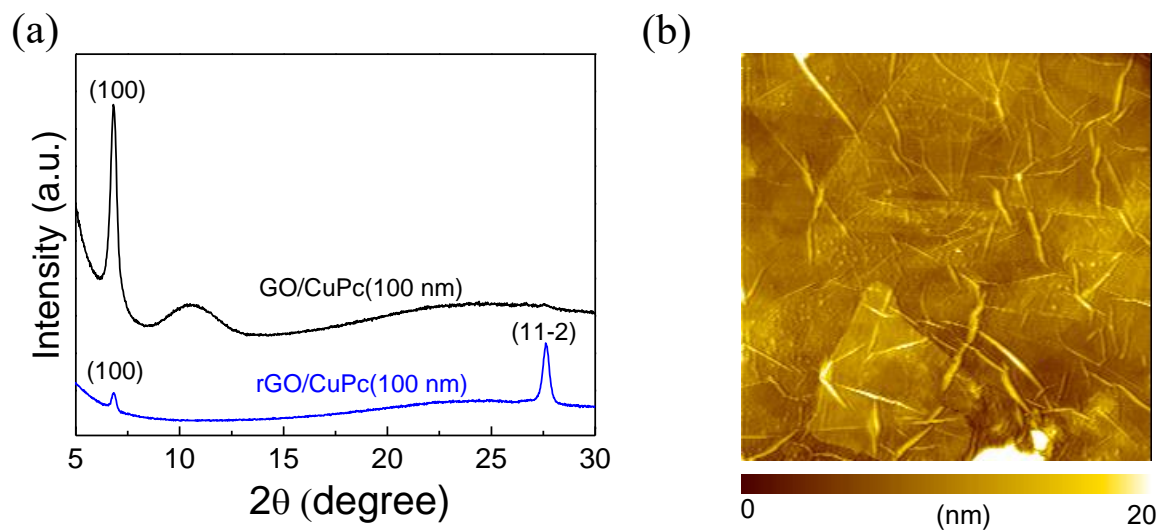
**Figure S1.** AFM images of (a) the GO film and (b) the rGO film scratched with a soft toothpick. Areas without GO (rGO) flakes show the bare substrate surface. Insert plots show cross-section data. Red lines show average values of the cross-section data in the GO (rGO) surface and the bare substrate surface. The average film thicknesses of the GO and rGO films were estimated by measuring the heights of the film edges between the red lines. The thicknesses were 3.6 nm for the GO film and 1.9 nm for the rGO film.



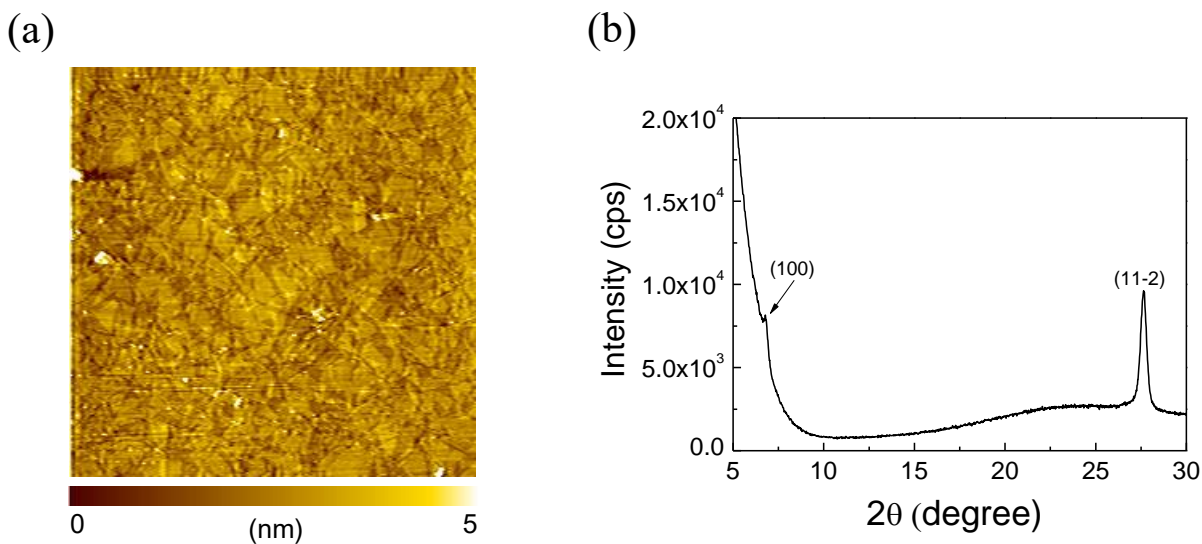
**Figure S2.** Current – voltage plots measured by the 2 terminals method of the GO and rGO films. The inserted figure shows schematic representation of the measurements. The sheet resistances and electric conductivities were calculated from the series resistances of the films.



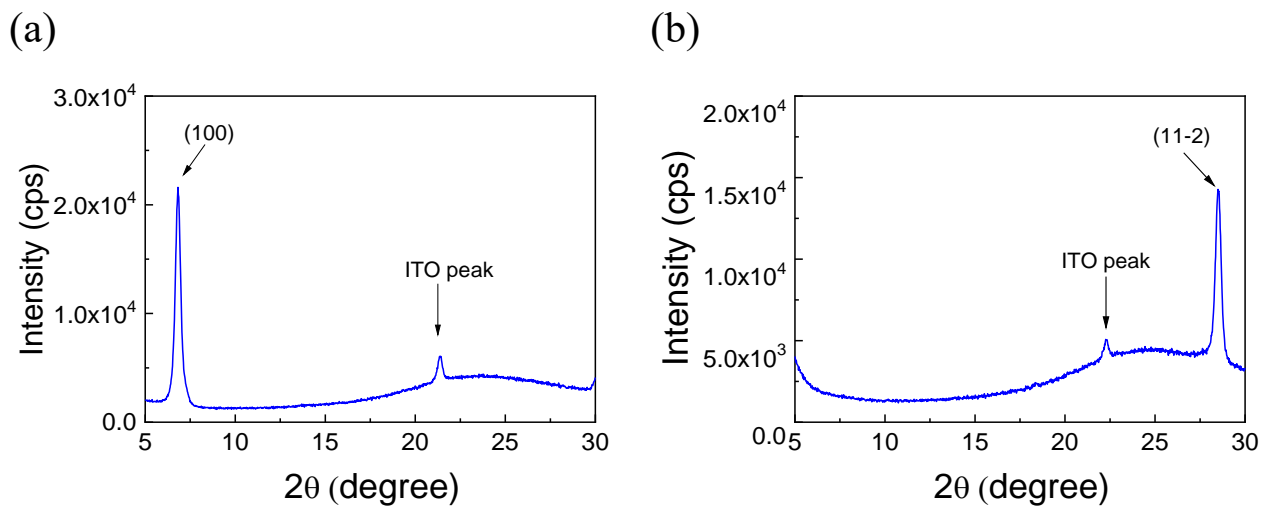
**Figure S3.** Out-of-plane XRD pattern of the rGO film on the glass substrate.



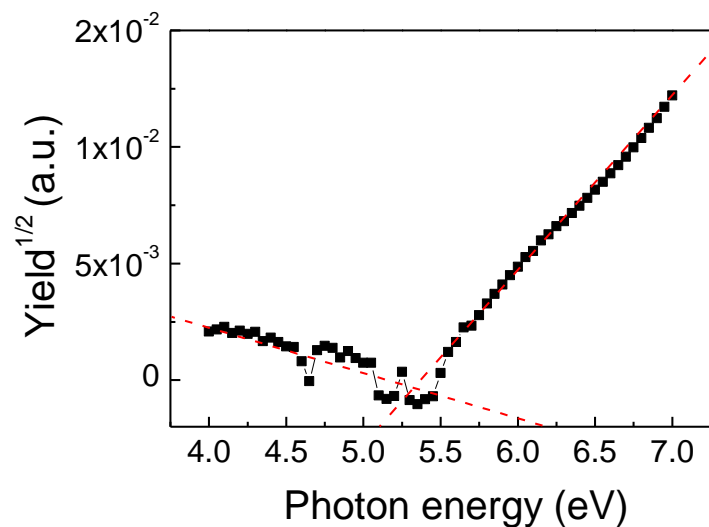
**Figure S4.** (a) Out-of-plane XRD patterns of the CuPc films on the GO and the rough rGO films. (b) The AFM image (scale:  $10 \mu\text{m}$ ) of the rough rGO film fabricated from a GO solution without centrifugation,



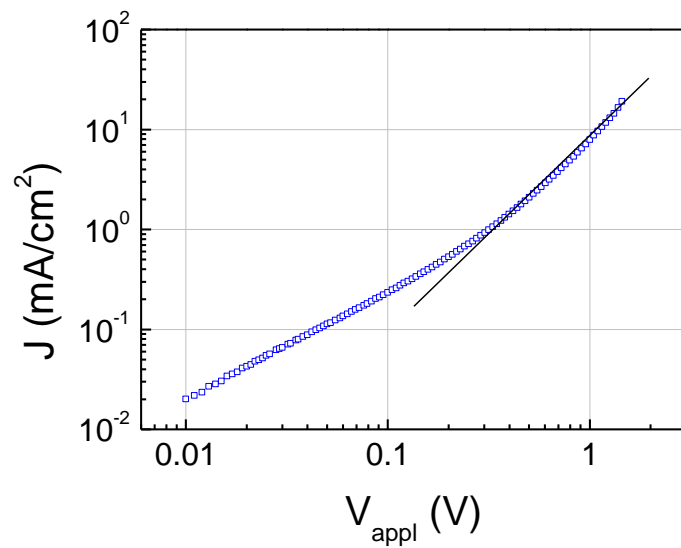
**Figure S5.** (a) The AFM image (scale: 10  $\mu\text{m}$ ) of GO film sonicated for 1 hour. (b) The out-of-plane XRD pattern of the CuPc film with 100 nm thickness on the rGO film reduced from the sonicated GO film.



**Figure S6.** Out-of-plane XRD patterns of CuPc films onto (a) the bare ITO substrate (b) and the rGO coated ITO substrate.



**Figure S7.** Photoelectron yield spectrum (PYS) of the rGO film on the glass substrate.



**Figure S8.** Current density – voltage plot of the CuPc film with 300 nm thickness onto the rGO layer.