Supporting information

High mobility field-effect transistors produced by direct growth of C_{70} single crystals from a solution

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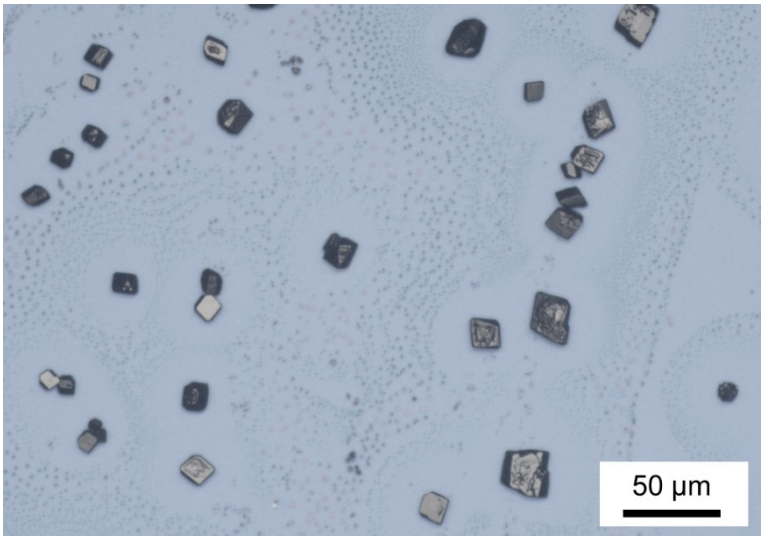

Fig. S1. Rhombohedron-like shaped C_{70} crystals grown on a SiO_2-Si substrate.

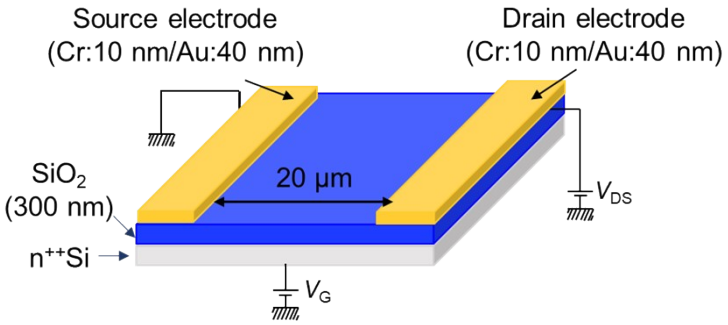

Fig. S2. Schematic representation of the FET substrate with electrodes.

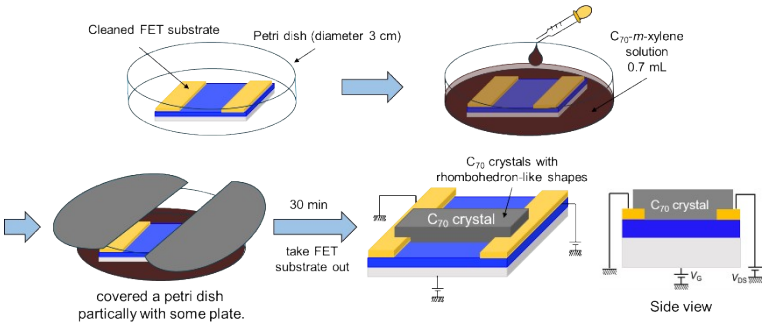

Fig. S3. Process for manufacturing the FET.

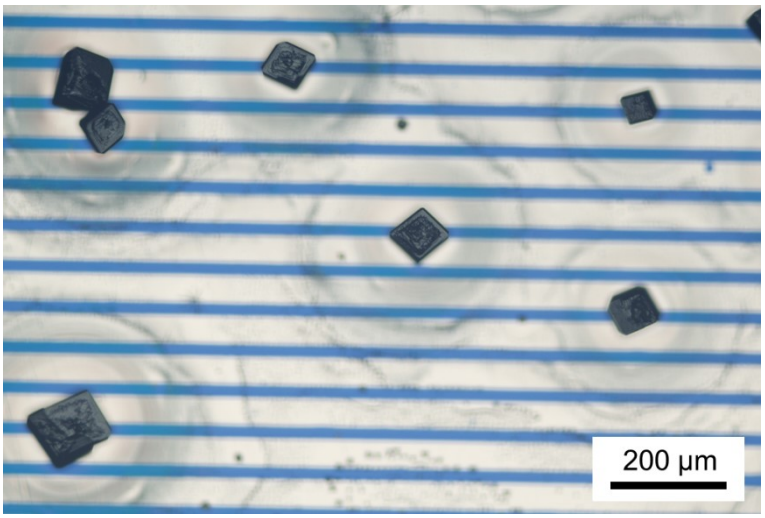

Fig. S4. C_{70} crystals grown at the step edges of the electrodes on the FET substrate.

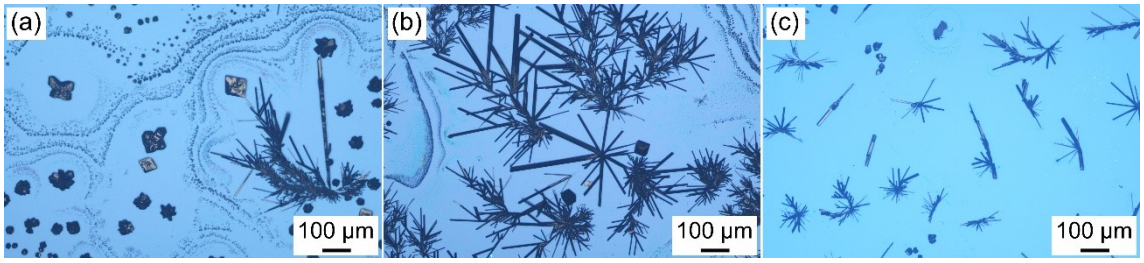

Fig. S5. Optical micrographs of C_{70} crystals obtained from different saturated solutions prepared at (a) 5 °C, (b) 20 °C and (c) 40 °C, respectively.

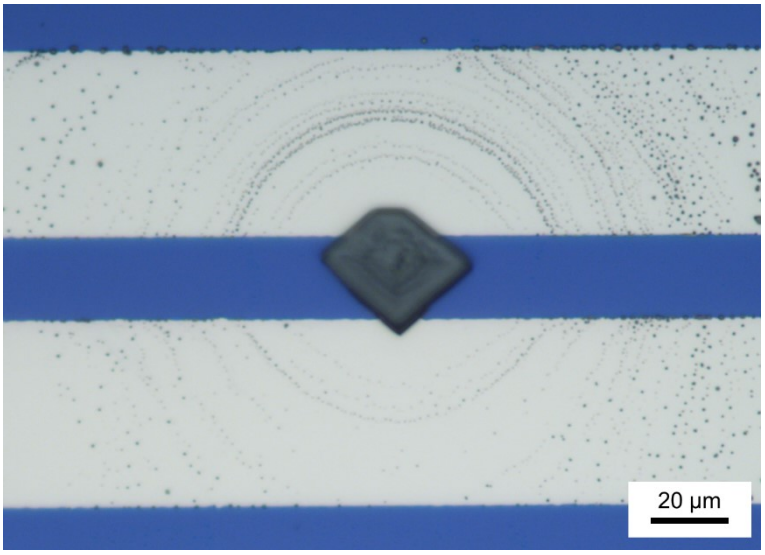

Fig. S6. Optical micrograph image of the direct-growth of a C_{70} crystal on the FET substrate.

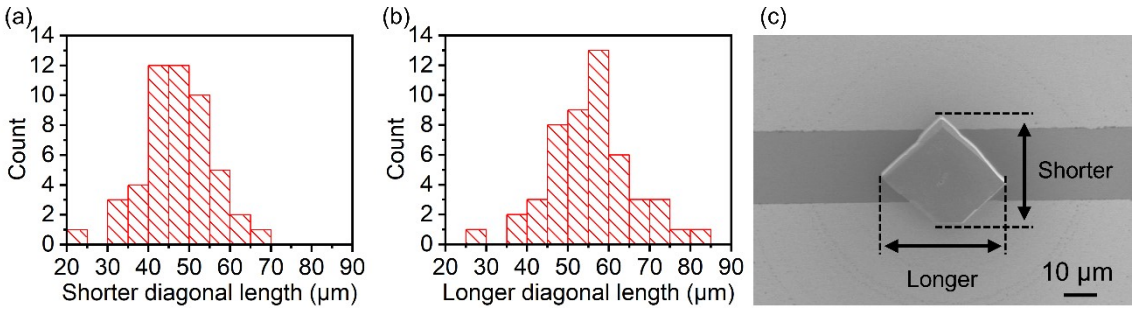

Fig. S7. (a,b) The size distribution of C_{70} crystals grown to bridge the two electrodes. (c) The sizes correspond to the diagonal lengths in the rhombohedral crystal morphology.

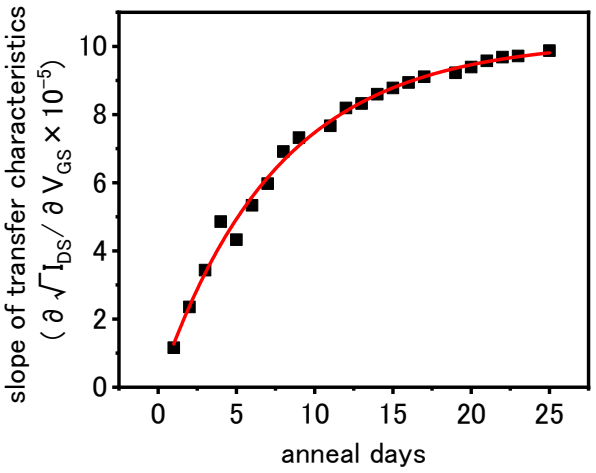

Fig. S8. The dependence of the number of annealing days on the slope $(\partial\sqrt{I_{DS}}/\partial V_G)$ of the transfer characteristics. The red line is an exponential curve.