

Supporting Information

Morphology Control of Nanocrystalized C₆₀ Thin Film Prepared by Poor Solvent Immersion

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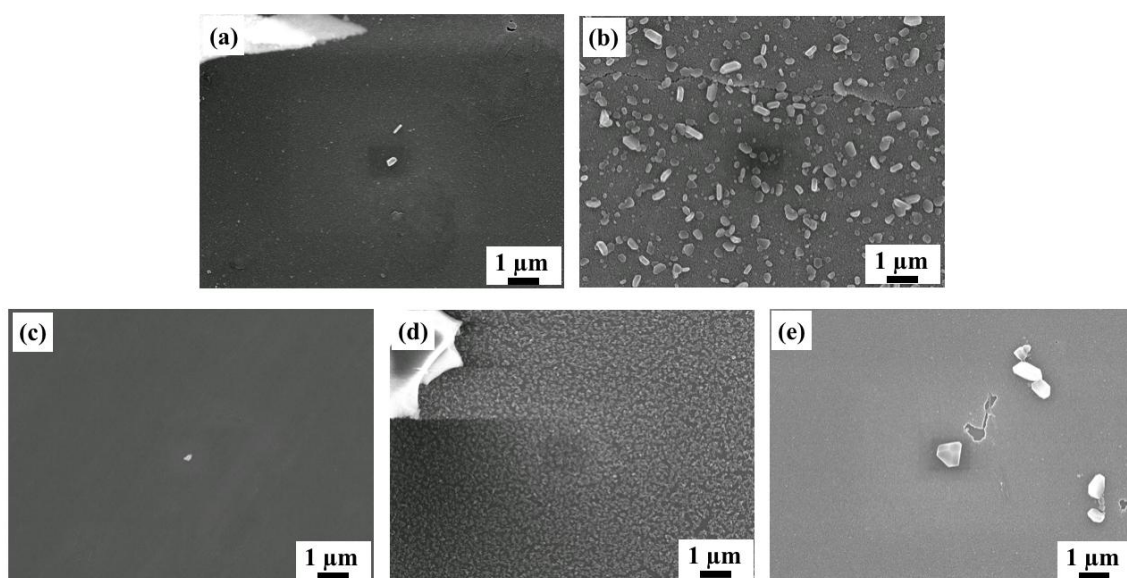


Figure S1. SEM images of the C₆₀ thin film immersed using (a) methanol, (b) ethanol, (c) hexane, (d) cyclohexane, and (e) chloroform for 60 minutes, respectively.

Table S1. Solubility of C₆₀ in various solvents [1] [2]

Solvents	Solubility (mg/mL)	RED	Good or Poor
Methanol	0.000	6.052	Poor
Ethanol	0.001	4.962	Poor
Hexane	0.043	2.663	Poor
Cyclohexane	0.036	1.782	Poor
Chloroform	0.16	1.242	Poor

RED : Relative Energy Difference

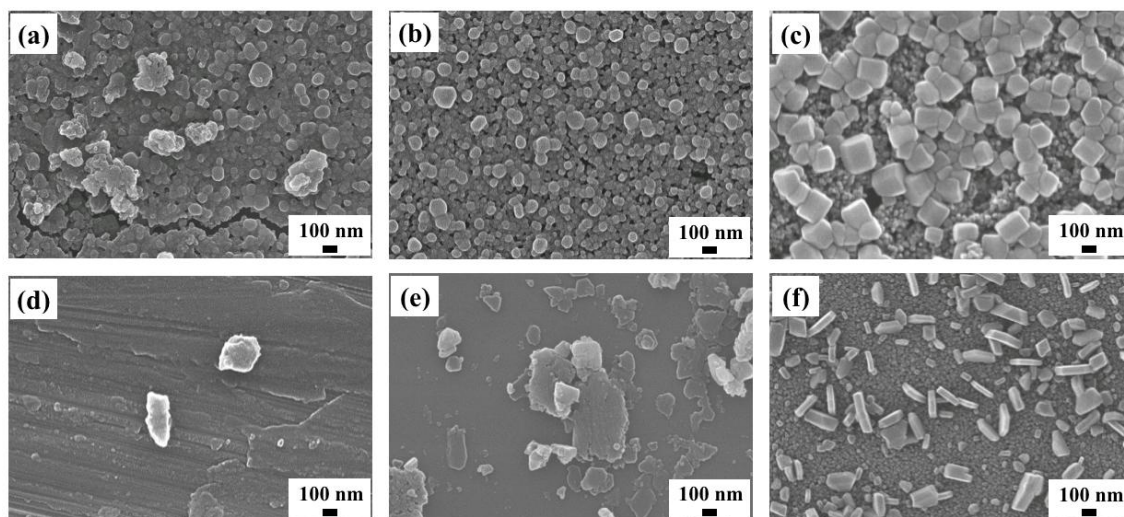


Figure S2. High magnification SEM images of nanocrystallized C₆₀ thin films immersed in 1-propanol for 1 min (a), 5 min (b), (c) 30 min, and C₆₀ thin films immersed in 2-propanol for (d) 1 min, (e) 5 min, (f) 30 min.

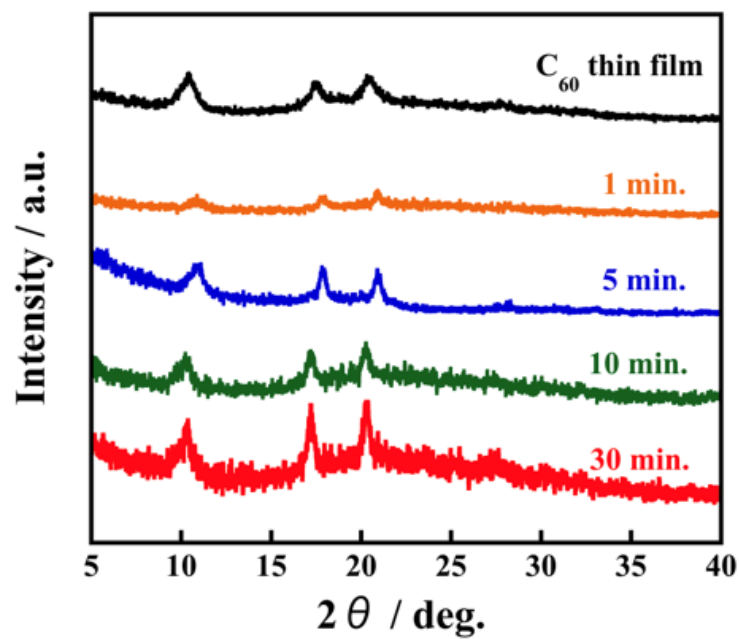


Figure S3. XRD patterns of (a) a thermally evaporated C₆₀ thin film and nanocrystallized C₆₀ thin film immersed in 1-propanol for (b) 1 min, (c) 5 min, (d) 10 min, (e) 30 min, respectively.

1. Ruoff, R. S.; Tse, D. S.; Malhotra, R.; Lorents, D. C. Solubility of fullerene (C₆₀) in a variety of solvents. *J. Phys. Chem.* **1993**, 97, 3379–3383, 10.1021/j100115a049.
2. Hansen, C. M.; Smith, A. L. Using Hansen solubility parameters to correlate solubility of C₆₀ fullerene in organic solvents and in polymers. *Carbon* **2004**, 42, 1591–1597, 10.1016/j.carbon.2004.02.011.