

Interpenetrating heterojunction photovoltaic cells based on C60 nano-crystallized thin films

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Supplementary Materials for
Interpenetrating Heterojunction Photovoltaic Cells Based on C₆₀
Nano-Crystallized Thin Films

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Figures

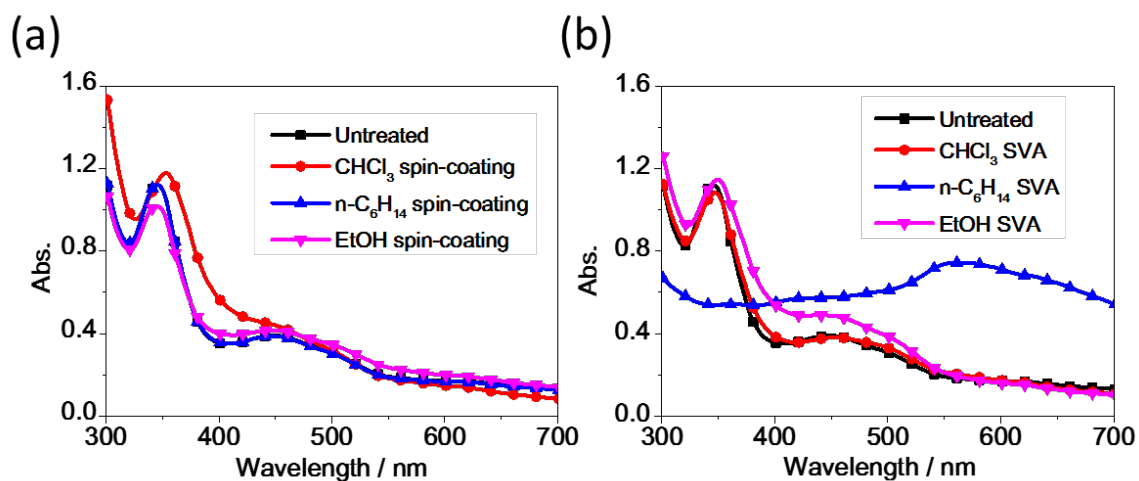


Fig. S1. UV-Vis spectra of (a) C₆₀ films formed with and without solvent spin-coating method and (b) C₆₀ films formed with and without SVA method.

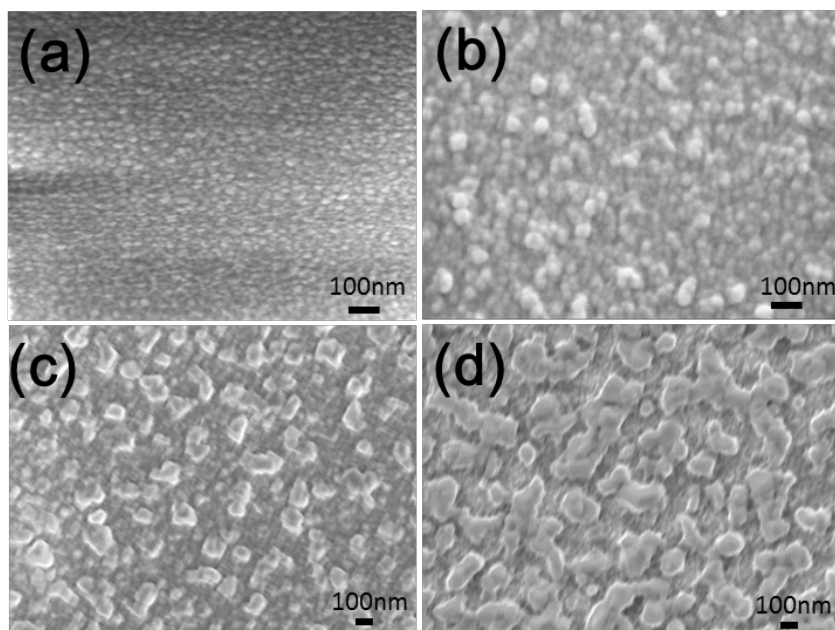


Fig. S2. SEM images of C₆₀ nanocrystallized films treated by different time ((a) 0 min, (b) 30 min, (c) 45 min and (d) 60 min) by SVA method with EtOH.

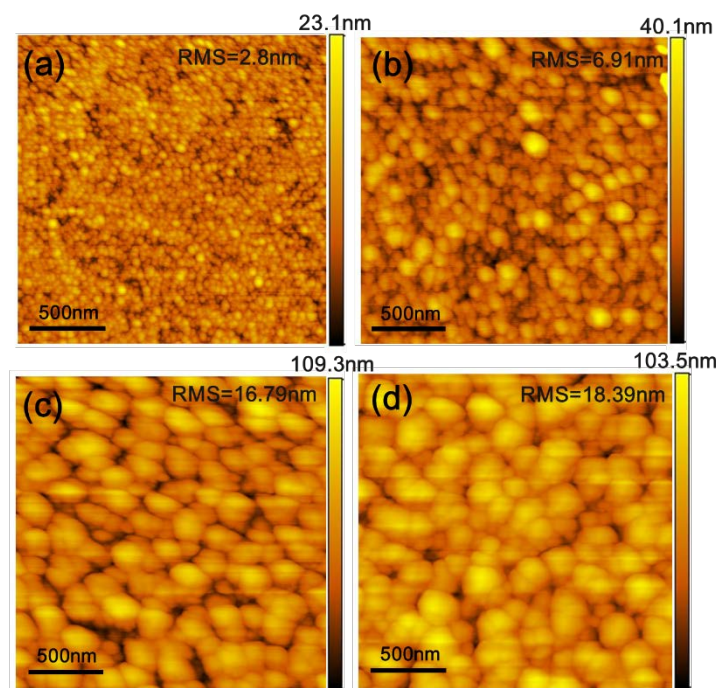


Fig. S3. AFM images of C_{60} nanocrystallized films treated by different time ((a) 0 min, (b) 30 min, (c) 45 min and (d) 60 min) by SVA method with EtOH

Table

Table S1. Peak parameters used to calculate the mean crystalline size in films formed with solvent annealing using the Scherrer formula.

Parameter	C ₆₀ nanocrystallized films			
	CHCl ₃ spin-coat	CHCl ₃ SVA	<i>n</i> -C ₆ H ₁₄ SVA	EtOH SVA
FWHM (B)	0.42	0.54	0.24	0.78
Bragg Angle (θ) Primary peak	5.076	5.38	5.393	5.421
X-ray wavelength (λ)	1.54	1.54	1.54	1.54
Constant (K)	0.94	0.94	0.94	0.94
D _{SEM} (nm)	100~300	150~300	500	150
D _{XRD} (nm)	19.7	15.5	34.9	10.8
d-space (Å)	8.71	8.21	8.19	8.15

D_{SEM} and D_{XRD} represent the mean crystal size and particle diameter size calculated from SEM and XRD patterns, respectively.