## **Supplementary Information**

## Viscosity effect on strategic kinetic overgrowth of molecular crystals in

## various morphologies: concave and octapod fullerene crystals

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Fig. S1 Size distributions of  $C_{70}$  (a) cubes, (b) concave cubes, and (c) octapods.



Fig. S2 Raman spectra of C<sub>70</sub> cubes (black), concave cubes (blue), and octapods (red).



**Fig. S3** Size distributions and the average sizes of  $C_{70}$  seed crystals obtained at (a) 25°C, (b) -16°C, and (c) -78°C.



**Fig. S4** Time-dependent SEM images of C<sub>70</sub> cube crystals obtained at 25°C. Growth time for each image is (a) 0 min, (b) 1 min, (c) 5 min, (d) 30 min, and (e) 3 h, respectively. (Scale bar: 1  $\mu$ m)



Fig. S5 The size change of  $C_{70}$  cube crystals formed at 25°C as a function of growth time.



**Fig. S6** Size distributions and the average sizes of  $C_{70}$  crystals obtained using acetone as antisolvent at (a) 25°C, (b) -16°C, and (c) -78°C.



**Fig. S7** Temperature-dependent morphology of C<sub>70</sub> crystals using (a-c) ethanol, (d-f) 1-propanol, and (g-i) 1-butanol as antisolvent. ASC was performed at 25°C (left), -16°C (middle), and -78°C (right), respectively.



Fig. S8 UV-VIS absorption spectra of saturated crystallization solutions at 25°C (black), -16°C (red)

and -78°C (blue).