

Supporting Information

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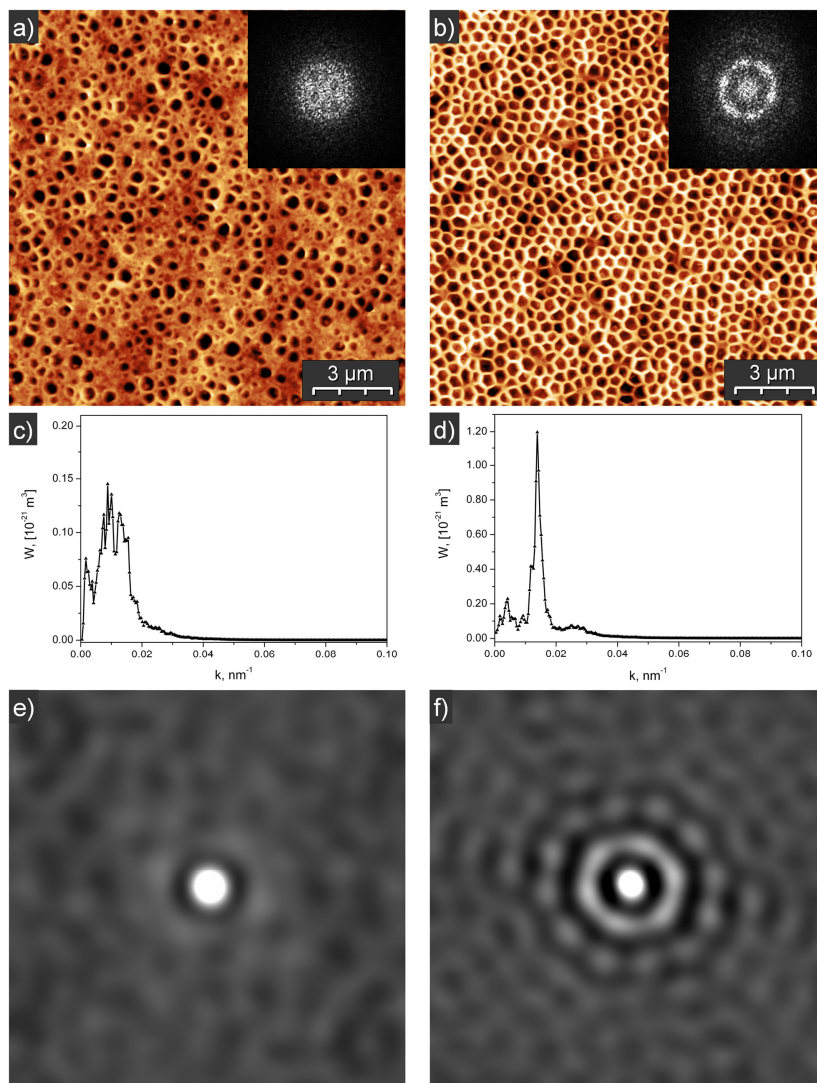


Figure S1 AFM height images of (a) disordered and (b) ordered honeycomb structures obtained after spin-coating a solution of metal-loaded block copolymer vesicles onto Si/SiO₂ substrates. The insets in (a) and (b) show the corresponding 10 FFT image. While the pattern in (a) is disordered, the honeycomb structure in (b) shows a six fold coordination and regular lattice spacing. Radial averaging over the 2D-FFT yields the power spectral density presented in (c) and (d) for the disordered and ordered pattern respectively. The peak positions correspond to a lateral spacing of $\Lambda = 493 \text{ nm}$ for the disordered and $\Lambda = 457 \text{ nm}$ for the ordered pattern. The 2D-autocorrelation function (ACF) shown in (e) and (f) also indicates that pattern (a) shows little regularity, while the honeycomb pattern in (b) is well-ordered. In ACF in (f) signifies 15 a six fold coordination of the porous structure shown in (b); moreover the presence of strong first and second order maxima suggest a high degree of short range order. At the third maxima the pattern becomes blurred, indicating the poor long-range order in these honeycomb structures.