

Electronic Supplementary Information for: Tunable Assembly of Host–Guest Colloidal Crystals

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Beginning of Supplementary Figures

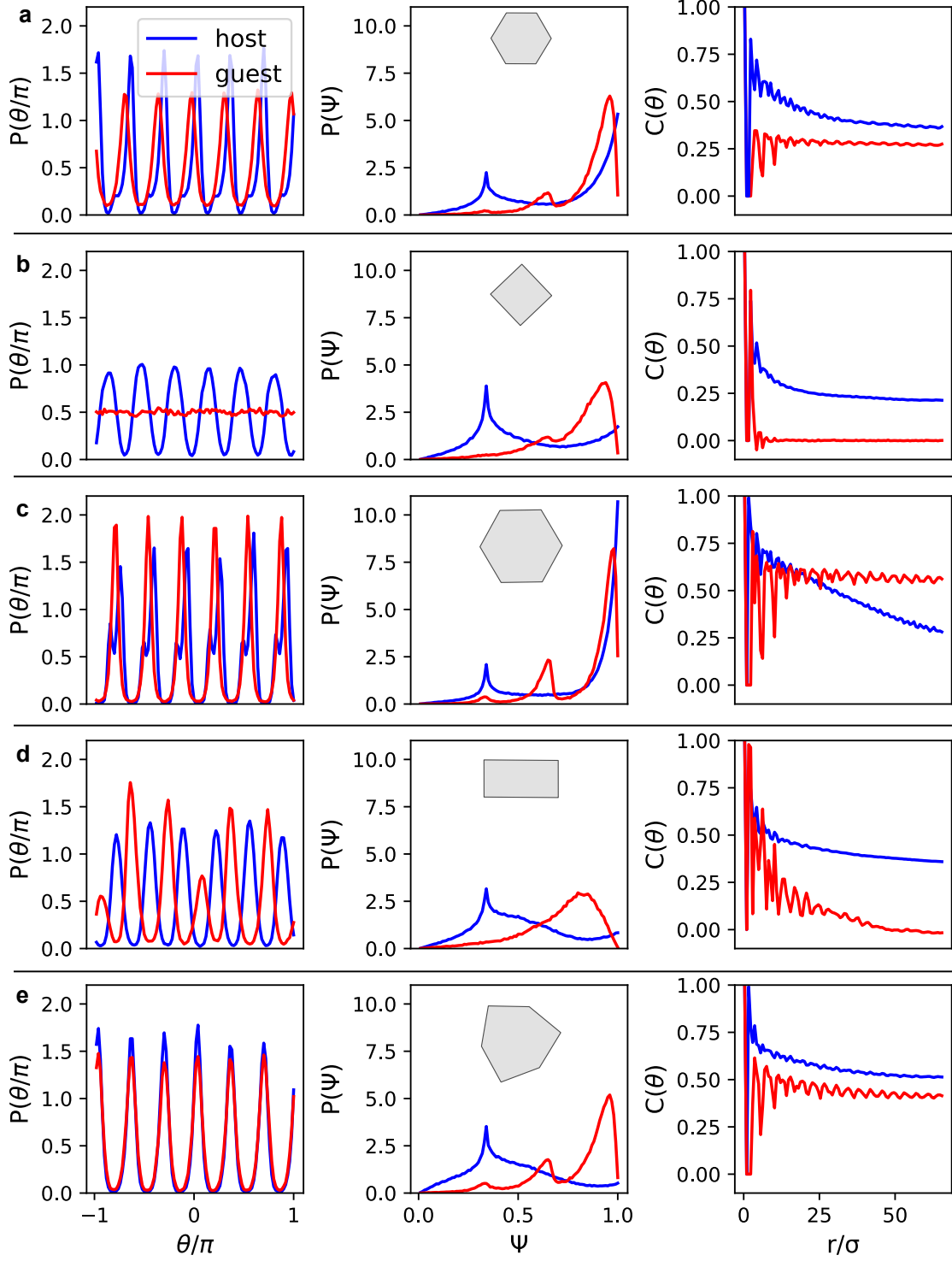


Figure S1: Structural analysis of self-assembled host-guest systems. Each row corresponds to a system with a specific guest shape shown in the inset in the middle column. Left columns: distributions of body orientations of host and guest particles for systems shown in Figs. 2 and 4 in the main text. Middle columns: distributions of the hexatic bond orientational order parameter ψ_j for host and guest particles. For the host we assumed 3 nearest neighbors and for the guests 6 nearest neighbors. Right columns: spatial correlation functions of body orientations of host and guest particles. Data for each distribution (correlation function) was collected from (averaged over) the final 5×10^6 steps of the simulation.

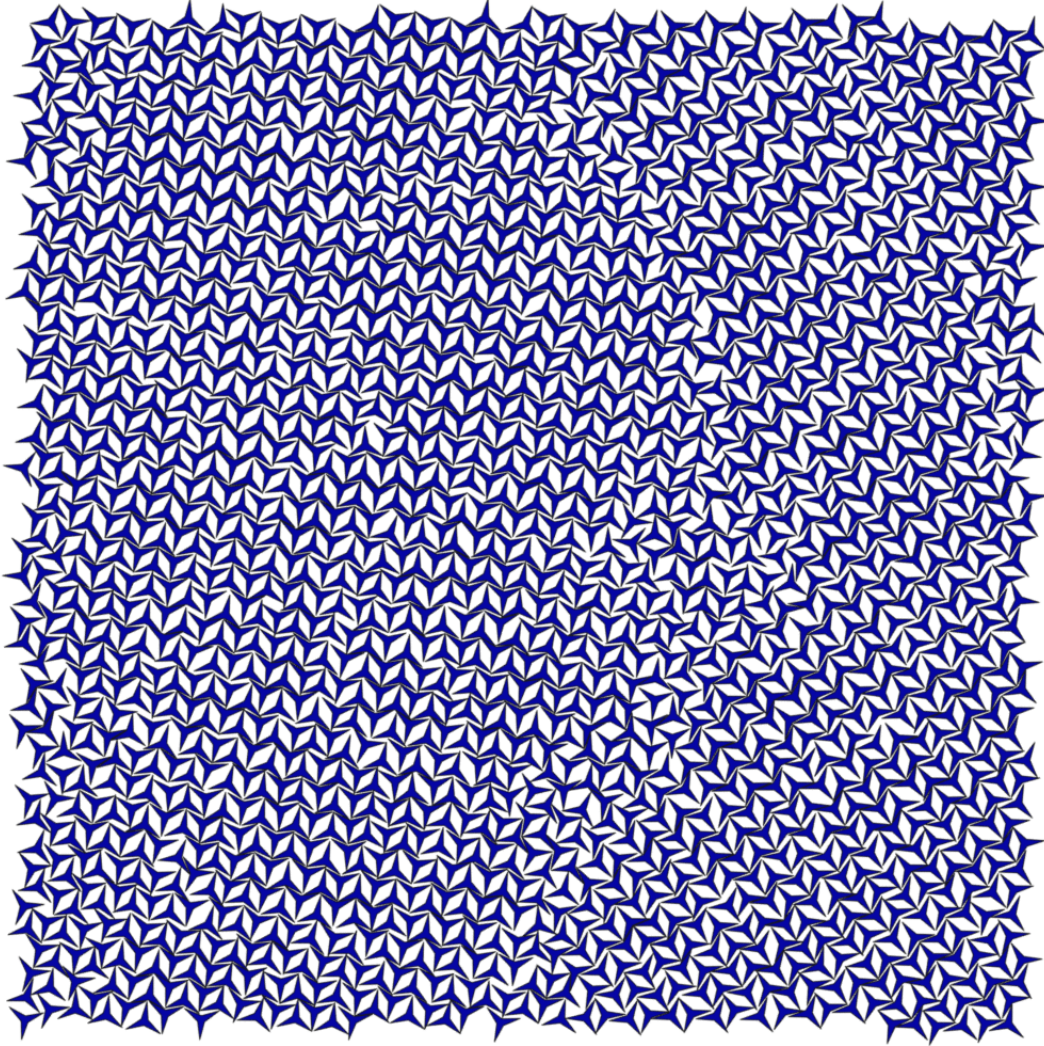


Figure S2: Snapshot of a system containing only hard star particles at $P^* = 3.5$ showing that hexamer pores do not assemble in the absence of guest particles.

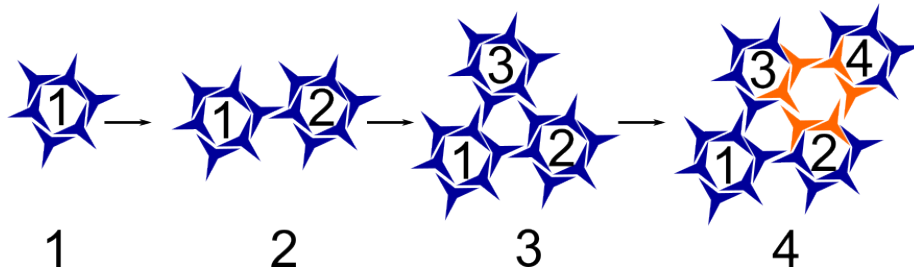


Figure S3: Tiling the plane with hexameric shield-shaped pores results in hexagon pores. To illustrate this we place a single shield pore and then add additional shield pores (number denoting the number of shield pores) with edge-edge connections that make more shield pores. Placing three shield pores in this way results in an additional emergent shield pore shown in 3. However, placing a 4th shield pore results in the emergence of a hexagon pore, indicating that hexamer shield pores alone cannot tile space.