

SUPPORTING INFORMATION

Effects of Altering Morphology on the Mechanical Properties of Heterogeneous Polymer-grafted Nanoparticle Networks

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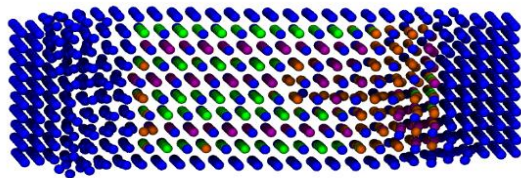
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VISUAL INSPECTION OF LAYERED PGN NETWORKS AFTER DEFORMATION FOLLOWED BY RELAXATION

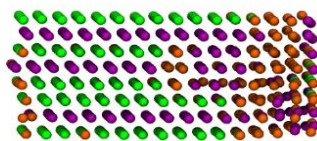
Figure S1 shows the side view of a layered PGN network after deformation followed by relaxation. To calculate the two bond-orientational order parameters in Fig. 7, we select the reference PGNs located in a region of size $8 \times 8 \times 8 = 512$ in the middle of a sample where the edge effects are minimal. The particles not included to the reference ones are colored in blue. The reference particles located in the areas, which contribution to the distribution function of the order parameter q_6 in Fig. 7b is greater than 0.05 (ordered areas), are colored in purple if they have the HCP local order, and are colored in green if they have the FCC local order. The reference particles are colored in orange if they are located in the areas, which contribution to the distribution function of q_6 in Fig. 7b is less than 0.05 (disordered areas).

Figure S2 shows the reference particles in the ordered areas for three runs of simulations. Coloring of the particles is the same as in Fig. S1.

(a)



(b)



(c)

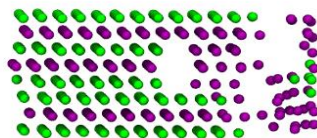


Figure S1. The side view of a sample of the layered PGN network after deformation and relaxation. (a) All particles in the sample. (b) All reference particles in the sample. (c) The reference particles in the ordered areas.

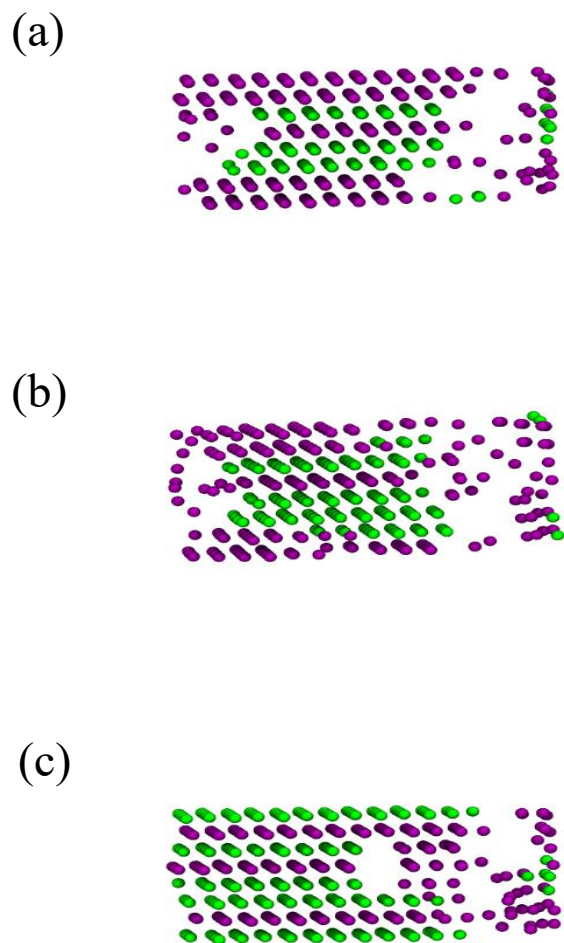


Figure S2 The reference particles in the ordered areas for three runs of simulations. The spatial distribution of particles having the FCC (green) and HCP (purple) local order differs from run to run.