Kinetically-limited molecular beam epitaxy of B_xGa_{1-x}As alloys

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Supporting information

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Figures:

S1: High-resolution x-ray diffraction reciprocal space map from coherent and structurally degraded B_xGa_{1-x}As/GaAs heterostructures. S2: High-resolution x-ray diffraction reciprocal space map from B to Ga of As/GaP

S2: High-resolution x-ray diffraction reciprocal space map from B_{.15}Ga_{.85}As/GaP heterostructure.



S1: High-resolution x-ray diffraction (HR-XRD) reciprocal space maps (RSM) measured about the GaAs (224) plane for coherent (a) and structurally degraded (b) $B_xGa_{1-x}As/GaAs$ heterostructures. Corresponding HR-XRD (004) ω -2 θ measurements are shown in Figure 4a of the primary manuscript, The RSM in a) was measured from the $B_xGa_{1-x}As$ heterostructure

incorporating 9.7% B (Figure 4a purple curve) and the RSM in b) was measured from the B_xGa_{1-x} As heterostructure incorporating approximately 18% B (Figure 4a orange curve).



S2: High-resolution x-ray diffraction reciprocal space map measured about the GaP (224) plane for the B_{.15}Ga_{.85}As/GaP heterostructure. The corresponding HR-XRD (004) ω -2 θ measurement is shown in Figure 7 of the primary manuscript.