



Prediction of ordering and spontaneous rotation of epitaxial habits in substrate-coherent InGaN and GaAsSb

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## Prediction of ordering and spontaneous rotation of epitaxial habits in substrate-coherent InGaN and GaAsSb

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Coherently strained In<sub>0.5</sub>Ga<sub>0.5</sub>N on GaN and CaO substrates are theoretically predicted to show  
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structure  $\overline{S30}$ :  $(AC)_1/(BC)_4$  (201) SL structure.

(ii)  $S_{\parallel}$  vs  $S_{\perp}$ : Fig. 2 shows that when one uses an end-point substrate (e.g., InGaN-on-GaN or GaAsSb-on-GaAs), provided there is coherence, the lowest energy CH habit is the  $\parallel$  one [i.e., (210)]. However, when the substrate changes to a midpoint one (as in InGaN-on-CaO or GaAsSb-on-InP), the lowest energy