



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

Jefferson Zhe Liu, Giancarlo Trimarchi, and Alex Zunger^{a)}
National Renewable Energy Laboratory, Golden, Colorado 80401, USA

(Received 2 June 2009; accepted 17 July 2009; published online 24 August 2009)

Coherently strained $\text{In}_{0.5}\text{Ga}_{0.5}\text{N}$ 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) *Spontaneous rotation of epitaxial habits*: 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