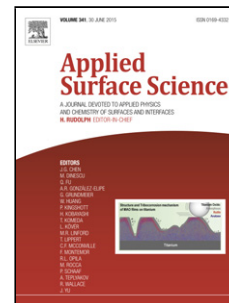


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Title: Impact of substrate nitridation on the growth of InN on $\text{In}_2\text{O}_3(111)$ by plasma-assisted molecular beam epitaxy

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Highlights

- An in situ nitridation of the $\text{In}_2\text{O}_3(111)$ substrate converts the surface of $\text{In}_2\text{O}_3(111)$ to $\text{InN}\{0001\}$.
- The morphology of InN films deposited on such nitridated $\text{In}_2\text{O}_3(111)$ substrates is characteristic for growth by instable step-flow contrary to the three-dimensional growth obtained without nitridation.
- This different morphology is demonstrated to be a consequence of the different polarity of the InN films.
- The polarity of InN films grown on $\text{In}_2\text{O}_3(111)$ can be controlled.

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