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Session IC22 - Wide Bandgap Semiconductors III: Growth Issues.  
*FOCUS session, Tuesday morning, March 23*  
*Room 254W, GWCC*

## [\[IC22.12\] Morphological and optical characterization of GaN prepared by pulsed laser ablation.](#)

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GaN films were grown on heated sapphire substrates using KrF excimer laser ablation of GaN in reactive atmospheres of nitrogen or ammonia. The films were characterized by continuous wave luminescence measurements and atomic force microscopy (AFM). The luminescence spectra and the AFM measurements were compared for samples grown in different reactive atmospheres and for different substrate temperatures and post-annealing treatments. Such studies are useful for understanding the growth processes in pulsed laser deposition of GaN films and the character of the luminescence.

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**Morphological and optical characterization of GaN prepared by pulsed laser ablation.** ANGELO TRIVELLI, Department of Physics and Astronomy, University of Pittsburgh, USA, MASSIMO CAZZANELLI<sup>1</sup>, Department of Physics, Trinity College, Dublin, Ireland, CLAUDIO VINEGONI, Department of Physics and Astronomy, University of Pittsburgh, USA, JAMES G. LUNNEY, Department of Physics, Trinity College, Dublin, Ireland, JEREMY LEVY, Department of Physics and Astronomy, University of Pittsburgh, USA |

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Prefer Oral Session  
 Prefer Poster Session

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