

## Templates by Hydride Vapour Phase Epitaxy

**Technologies and Devices International (TDI), part of Oxford Instruments Plasma Technology, is a world leader in the development of **Hydride Vapour Phase Epitaxy (HVPE)** processes and techniques for the production of novel compound semiconductors such as GaN, AlN and AlGaN.**

### Key Features of HVPE technology

- High growth rate (>60  $\mu\text{m}/\text{hour}$ )
- Low dislocation density
- Wide range of layer thickness up to 350  $\mu\text{m}$
- Cost effective templates for device manufacturing
- Si, Mg, and Fe doped or undoped materials are available

### Processing capabilities offered at our laboratories

- Low to medium volume templates on 2", 3" & 4" wafers as standard
- Research and development programmes & contracts undertaken for specific client requirements

## Oxford Instruments Plasma Technology

Oxford Instruments Plasma Technology offers flexible, configurable process tools and leading-edge processes for the precise, controllable and repeatable engineering of micro- and nano-structures.

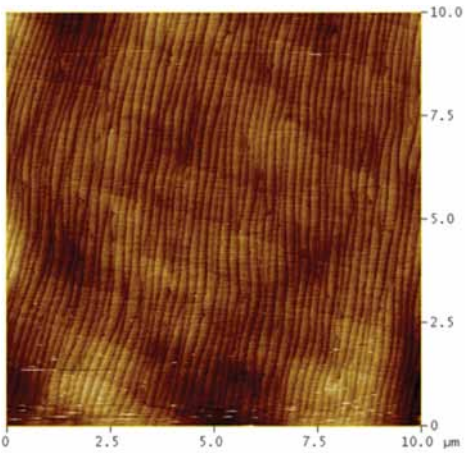
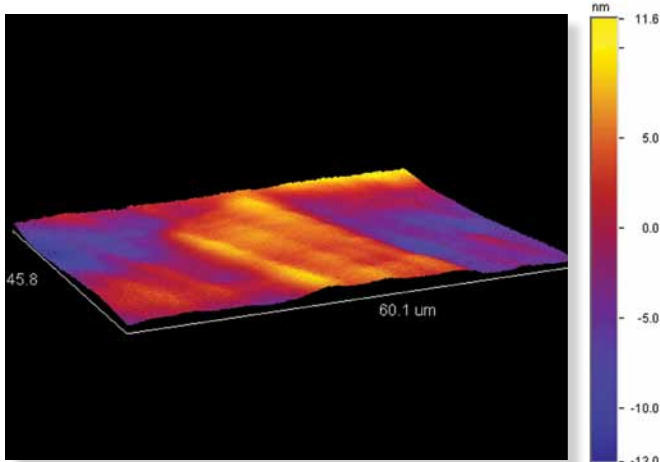
Using TDI's HVPE technology, Oxford Instruments can produce tools for applications such as High Brightness Light Emitting Diodes (HBLEDs), Laser Diodes and High Electron Mobility Transistors (HEMT).



An Oxford Instruments Company

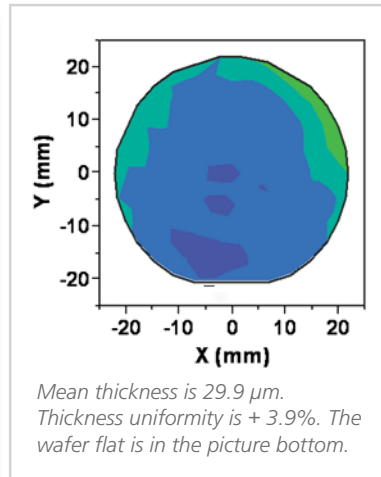
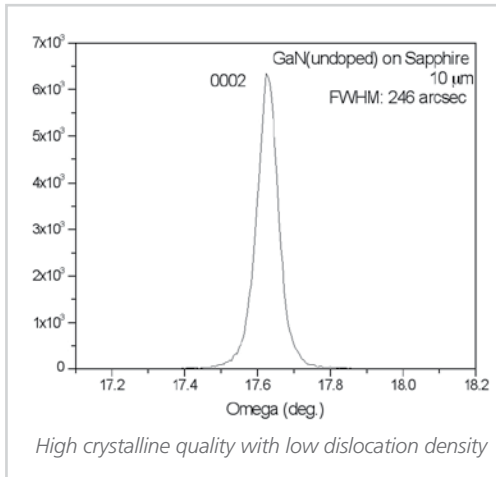


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## World leading solutions

AFM 10 μm x 10 μm scan obtained for 50 μm thick GaN layer grown on 2-inch sapphire. RMS roughness is 0.385 nm.



### Oxford Instruments Plasma Technology

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