

METAL-ORGANIC CHEMICAL VAPOR DEPOSITION

What We Offer

Design &
Simulation



Prototyping &
Fabrication



Testing &
Characterization



Metal–Organic Chemical Vapor Deposition (MOCVD) is a precise thin-film epitaxial growth technique in which metal–organic precursors react on a heated substrate to form high-quality semiconductor layers. It is widely used to produce advanced materials for optoelectronic and electronic devices.

Key applications

Advanced semiconductor research, supporting the development of next-generation materials and heterostructures

Heterostructures: epitaxial layers for LEDs, waveguide structures

Electronic devices: HEMTs, diodes, photodiodes, and NPN transistors

AIXTRON 3×2FT

- Growth temperature: 450 °C – 1200 °C
- Reactor pressure: 150 mbar – 800 mbar
- Showerhead–susceptor gap: 5 mm – 25 mm
- Susceptor rotation: 50 rpm – 150 rpm
- Process gases: TMGa, TMAI, TMIIn, TEGa, Cp2Mg, NH₃, SiH₄, H₂, N₂
- Wafer size: Up to 3 × 2" (batch mode) or 1 × 4" (single wafer mode)

Cleanroom class: ISO8

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Features:

- In-situ optical reflectometry for real-time growth-rate & thickness monitoring
- Three-zone tungsten-coil heater for uniformity correction
- Substrate temperature uniformity ±5 °C across 2" wafers

Capabilities:

Supported materials:

- GaN
- AlN
- InN
- InGaN
- AlGaIn

If you have any questions, please contact us by email:
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