

From labs to pilot lines: Graphene and related materials device fabrication solutions

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Abstract

Extensive efforts in the research and development of graphene-based technologies over the last 15 years has resulted in steady increase in technology readiness. Today, we see an emergence in efforts for development of graphene-based applications (such as modulators, detectors, gas and biosensors) at scale. For successful scaling up of prototypical applications demonstrated to date, robust technologies, and processes for large area device fabrication are required.

In this talk I will first give an overview of lab to fab technologies and processes developed at Oxford Instruments towards growth of Graphene, other layered materials and heterostructures by CVD and ALD followed by our developments in technology for device fabrication processes such as dielectric deposition by ALD and device pattern etching by RIE and ALE.

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