



## The rising need of (MO)CVD to bring 2D materials into industry

Dr. Salim El Kazzi

2D Product Manager

AIXTRON

[S.Elkazzi@aixtron.com](mailto:S.Elkazzi@aixtron.com)

### Abstract

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Either it is for electronic or lighting applications, there is an increasing demand from the industry to find wafer scale solutions to synthesize two-dimensional (2D) materials. Concerns about growth uniformity, thickness control and material quality are indeed of valid concerns. Moreover, questions on safety, contaminations, repeatability, and fab compatibility are also questions that need to be addressed to bring 2D materials into wafer scale manufacturing.

In our talk, we present how our metal organic chemical vapor deposition (MOCVD) technique can answer all the above challenges. The focus will be shed on how our close couple showerhead (CCS) reactor is offering 2D integration solutions for the Si-industry at both the FEOL and BEOL levels. Finally, our talk will show how Aixtron-CCS is enabling new 2D technological markets using a *lab-to-fab* strategy which help researchers and academics to bridge their findings into real industrial products.