

Precision materials engineering: Atomic control of materials for addressing electronics, energy and display industry challenges

Omkaram (Om) Nalamasu
Applied Materials, Santa Clara, CA, USA

Precision materials engineering (PME), a range of technologies that manipulate matter at an atomic scale, has been fundamental to driving advances in the semiconductor industry through Moore's Law. Similarly, PME-based technology advances concomitant with reduced cost/function (or area) have dramatically reduced costs in building a \$100B+ LCD industry and in driving solar photovoltaic toward grid parity.

In this presentation, I will detail how PME is deployed to address the challenges facing electronics, energy and display Industries and how this methodology can be deployed to address fundamental problems in multiple industries.