Deposition of: Aluminium Oxide film

Equipment: Atomic Layer Deposition System (M/s Picosun, Model R-200)

Property Measured: A system to deposit uniform and conformal thin films

Photograph

Basic Principle: Atomic Layer Deposition is a thin film deposition technique in which a film is grown on a substrate by exposing its surface to alternate gaseous species sequentially. These precursors react with the surface at a time in a sequential, self-limiting, manner. A thin film is deposited through the repeated exposure of separate precursors.

Capabilities: Thermal, Plasma and Ozone

Sample Requirement: Sample Size may be maximum up to 6 inch circular**

** This system is dedicated for silicon solar cell processing. Gold coated samples will not be used in the system. Before deposition, sample prior treatment information is mandatory. Before confirming deposition at NPL using ALD, we will see the effect of prior treatment on silicon solar cell performance in terms of silicon lifetime degradation.