Measurement of: Optical properties of thin films

Equipment: Ellipsometer-2 (Make: J A Woolam, Model: Vase)

Property Measured: Optical and material properties namely, thickness measurement of thin film (metals and semiconductors)

Photograph (small size)

Basic Principle: The ellipsometer measures the change in polarization upon reflection or transmission. Since the polarization change depends upon the material properties i.e, thickness, dielectric function, refractive index, therefore fitting the ellipsometric data with the appropriate model results in extraction of the optical parameters of the thin film.

Capabilities: The instrument can do the thickness measurement of thin film (metals and semiconductors) in the wavelength range of 200-800nm.

Sample Requirement: Thin film (metals and semiconductors)