

NanoSpec Spectrophotometer



Facts

- The SMFL has two Nanometrics Spectrophotometers
 - Nanometrics Model 210 is in Wet Etch 1.
 - Nanometrics Model 200 is in Wet Etch 2
- The basic operating principle of a spectrophotometer is that the intensity of monochromatic reflected light depends strongly on film thickness because of interference.
 - The film thicknesses are comparable to the wavelength of the incident light.
- The machine uses a computer-controlled grating monochromator and a photomultiplier tube detector to measure the reflected optical spectrum over the 350 to 800 nm wavelength band) from a bare silicon reference wafer and from the wafer under test.
- Given an index of refraction for a thin film and the two measured spectrums, the computer will analyze the interference pattern to determine film thickness.

Personnel

- Tool Engineer -
- Process Engineer - [Sean O'Brien](#)
- Process Engineer - [Patricia Meller](#)

Tool & Process Information

Manuals & Users

- [NanoSpec Manual](#)