

Real time study of thinning of photoresist layer on silicon

This customer wished to follow the thinning of a photoresist layer on silicon in real-time in the water/solvent bath. To make a measurement the sample was carefully aligned in the center of an empty vertical glass cylinder. The etch solution was then poured into the cylinder, the liquid level rising until the sample was completely covered. During etching the solute and solvent would flow vertically down the front of the sample.

The locus of y versus x for the thick sample showed three repetitions of the basic fundamental period locus, levelling off to values near $x \sim y \sim 0$ typical of a bare silicon surface in water solution at an angle of incidence near the Brewster angle.

Etching 800nm sample 10 data points per second



