

# Spectroscopic IMAGING ELLIPSOMETRY with new high speed measurement mode

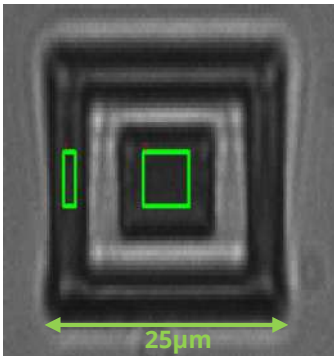
## SAMPLE AND SETUP

Thickness and composition of a multi layer film need to be mapped over larger samples with high speed .

Imaging ellipsometry with the **nanofilm\_ep4** combines the sensitivity for thickness and spectral refractive index measurements of ellipsometry with the benefits of magnification and lateral resolution of optical microscopy down to  $1\mu\text{m}$ .



## MEASUREMENT



SiO<sub>2</sub> pattern on Si

### Micro scale pattern :

Multiple regions on a sample down to **1 $\mu\text{m}$**  are selected by the patented ROI (Region Of Interest) option.

The new RCE6 mode (rotating compensator) performs fast automated spectral measurements and mapping on micron scale features.

Over 300000 Delta and Psi spectra (one spectrum per pixel) in less than **20s!**

## RESULTS

- Thickness-maps, composition-maps and RI-maps across larger samples
- Tact time for multi-region measurement or micro-map < **20s**
- Repeatability of thickness results: **0.03nm\***

\*( $1\mu\text{m} \times 5\mu\text{m}$  region, 115nm SiO<sub>2</sub> on Si)

## APPLICATIONS FIELDS

- ❖ **Quality control on display panels**
- ❖ **Wafer level mapping on microstructures**
- ❖ **Inkjet micro printing**