



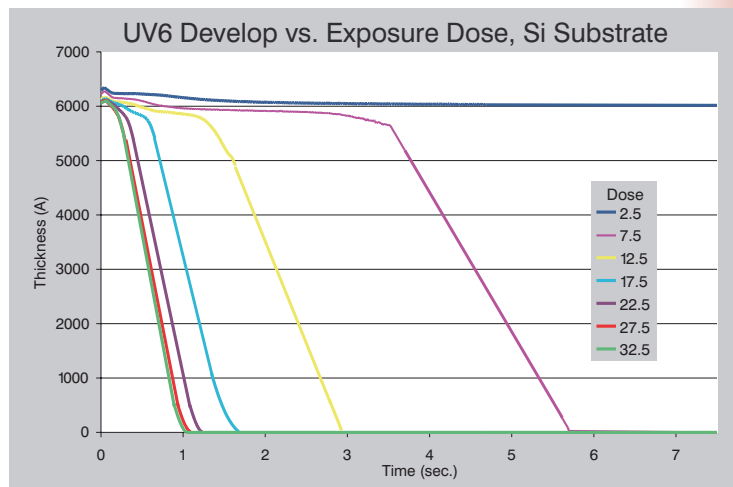
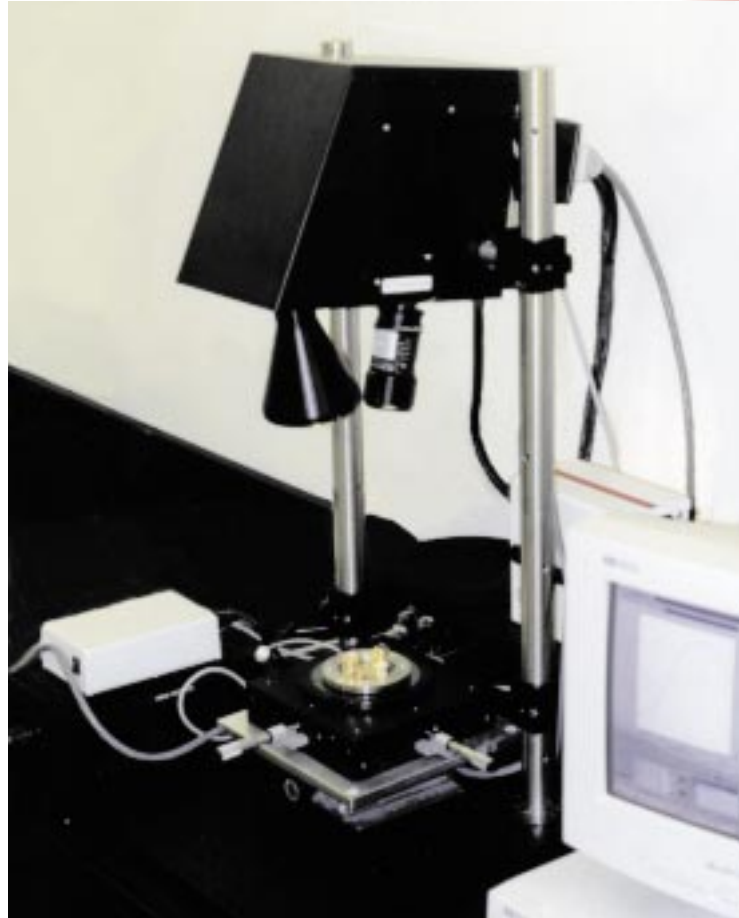
Optical Solutions from

SC TECHNOLOGY

HSDRM

High Speed Develop Rate Monitor

- ▶ Accurately measures film thickness as a function of time during photoresist develop.
- ▶ Simultaneously measures up to ten wafer exposure pads, with pad dimension ranging from 1.5 mm to 5 mm.
- ▶ Generates time/dose/thickness matrix file for each develop experiment.
- ▶ Spectral reflectance provides independent thickness measurement for each acquired data sample, at a rate of up to 1000 measurements/second.
- ▶ Measures up to 8000 thickness points per exposure pad per develop run.
- ▶ Accepts silicon, metallized, thin film coated, and AR coated substrates of up to 12" diameter.
- ▶ Measurement accuracy of $\pm 20 \text{ \AA}$ for undeveloped samples, $\pm 100 \text{ \AA}$ during resist develop.



51 Whitney Place
Fremont, CA 94539

www.sctec.com
sales@sctec.com

ph 510.770.0900
fax 510.770.1061

Specifications

Measurement

- Measurement technique: spectral reflectance
- Measurement pad size: 1.5mm x 1.5 mm up to 5mm x 5mm.
- Up to 10 pads on the wafer
- Integrated wafer alignment and developer dispense hardware
- Measurement rate: 1kHz, 0.5 kHz – 0.03 kHz
- Data buffer size: 1 – 8190 thickness points / pad
- Photoresist thickness: <math><10 \mu\text{m}</math>
- Accuracy: $\pm 20 \text{ \AA}$ for undeveloped samples, $\pm 100 \text{ \AA}$ during resist develop
- Materials: any optically transparent, with known index of refraction

Software

- DOS compatible software interface for data acquisition and data storage.
- Windows 95/98 software interface for data analysis.
- Spectral reflectance analysis monitors thickness from the very start of the developer dispense for the paddle develop process.
- Multi-layer algorithm provides thickness for the photoresist film applied directly to the substrate or on top of an AR coating.

General

- Head Dimensions: 7.5"x10"x20"
- Mount Height: 33"
- Table Dimension: 18"x18"
- Supply Voltage: 110 V