FT-100

Thin Film Thickness Measurement System

FT-100 Advantage:

- Extensive materials library (500+)
- Real-time, one-click measurement and analysis of thickness, n&k and roughness measurement
- Ease of use, no expert knowledge required
- Powerful analysis package scaling correction, multi-sample measurement, dynamic measurement.
- History of analysis: recall/display measurement results and statistics

Thickness Range: 1 nm - 1.8 mm
Wavelength Range: 200 nm - 1700 nm

Reliable, traceable, repeatable film thickness analysis of translucent or lightly absorbing films

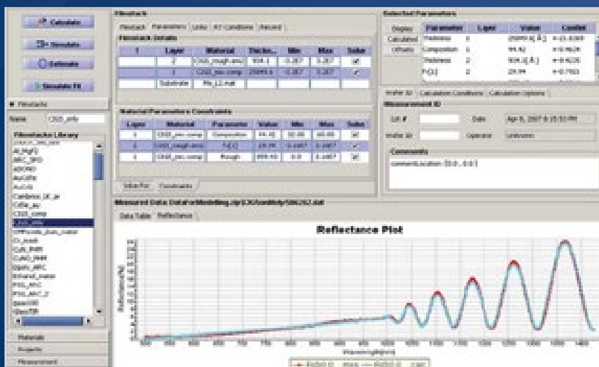
Oxides, Nitrides, Photoresists, Polymers, Semiconductors (Si, aSi, polySi), Compound Semiconductors (AlGaAs, InGaAs, CdTe, CIGS), Hard Coatings (SiC, DLC), Polymer films and coatings (Paralene, PMMA, Polyamides), thin metal films, and many more.

Thin Solar Cells applications:

aSi, TCO, CIGS, CdS, CdTe - full solar stack measurement. LCD, FPD application: ITO, Cell Gaps, Polyamides. Optical Coatings: dielectric filters, hardness coating, anti-reflection coating Semiconductor and dialectics: Oxides, Nitrides, OLED stack

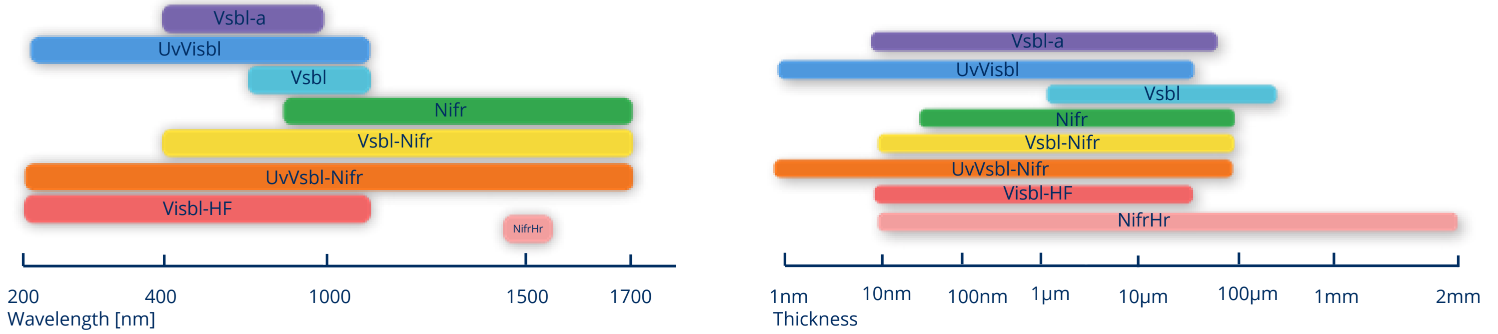
Precision: <0.01 nm or 0.01%
Accuracy: <0.2% or 1 nm
Stability: <0.02 nm or 0.03%
Spot Size: Depends on objective (4 um to 200 um. 2 mm)
Sample Size: Plaform dependent

CdS/CIGS Stack Results Measured vs. Generated Data



FT-100 Across Various Solutions

Standard Configuration/Basic Specification



Model RProbe-2000-XX	Wavelength Range	Spectrometer/Detector/Light source	Thickness range*
Vsbl-a	400-1100 nm	Spectrometer F4/Si 3600 pixels/ Tungsten - Halogen light source	10 nm to 75 μm
UvVisbl	200-1000 nm	Spectrometer F4/ Si CCD 2048 pixels/ Deuterium & Tungsten-Halogen light source	1 nm to 75 μm (option: up to 150μm)
Vsbl	700-1100 nm	HR Spectrometer F4/Si 2048 pixels/ Tungsten - Halogen light source	1 μm to 400 μm
Nifr	900-1700 nm	NIR F4/512 InGaAs PDA/Tungsten-Halogen light source	50 nm - 100 μm
Vsbl-Nifr	400-1700 nm	Spectrometer F4 Si CCD 3600 pixels(Vis channel);NIR F4/512 InGaAs PDA (NIR channel) Tungsten-Halogen light source	10 nm - 100 μm
UvVsblNifr	200-1700 nm	Spectrometer F4 Si CCD 2048 pixels (UVVis channel); NIR F4/512 InGaAs PDA(NIR channel) Deuterium & Tungsten-Halogen light source	1 nm - 100 μm
Visbl-HF	400-1100 nm	F4/Si 2048 pixels, Tungsten Halogen light source. High frequency measurement version of MProbe Vis system (LAN interface, 10μs integration time)	10 nm - 70 μm
NifrHr	1500-1550 nm	NIR F4/512 InGaAs PDA/Tungsten-Halogen light source or SLD (super-luminescent diode)	10 nm - 1800 μm (quartz) 4 μm - 500 μm (Si)

* T, n & k measurement in 25nm - 20μm thickness range. Maximum thickness limits are listed for R.I.= 1.5
Other configuration are available.

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