MDC
Materials Development Corp
Genève

Spectral Ellipsometry Systems ST-ER
For Process Monitoring Thickness

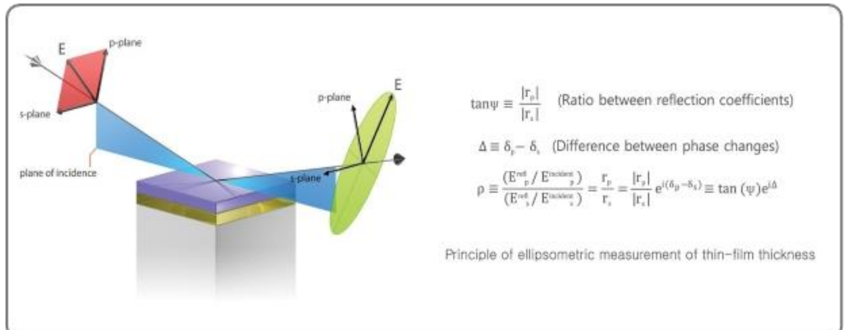
Applications:
Thickness measurement of ultra-thin film and refractive index after deposition of film and etching:
LCD, OLED, TSP, PDP, LED, SEMI, SolarCell

ST-ER Specifications

Spectral Range	Visible	370㎚~1000㎚, 390 wavelengths
	UV	245㎚~1000㎚, 470 wavelengths
	DUV	193㎚~1000㎚, 500 wavelengths
Spectral Resolution Bandwidth		1.5mm x 0.5mm 300㎛ x 150㎛ 60㎛ x 30㎛
Measurement Range		10Å ~ 10㎛, Max, 10 layers of multi-stack film structure
Refractive Index Measurement		Repeatability : < 0.005 (1σ)
Thickness Measurement		Repeatability : <1Å (1σ)

Existing Functions	Extended (Possible Functions)
n, k / Thickness Roughness /Interfacial Mixing / Crystallinity	N2 Chamber combined 3D Interferometer combined Vision Inspection combined
Anisotropy / Uniformity	
Energy Band Gap etc.	

Benefits:
High Speed Measurement
High Stability
Unique Technologies Providing
The Most Sensitive, Accurate Measurement
Compact Design for User Convenience



Principle of ellipsometric measurement of thin-film thickness

Thickness Measurements