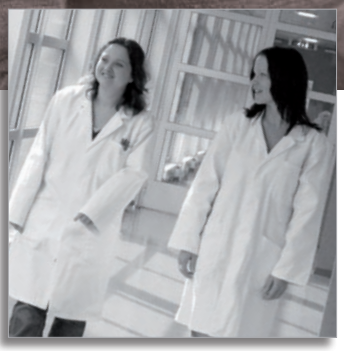

Thin Film Analysis

Material Analysis lab is part of the extensive range of services you can access at Philips Innovation labs on the High-Tech Campus Eindhoven. From device technologies and systems creation, to materials analysis, test and measurement, discover the possibilities yourself at www.innovationlabs.philips.com

Material Analysis lab has a proven track record in supporting semiconductor research and development, ranging from the smallest CMOS to the newest MEMS to plastic electronics. Through the application of a wide range of analytical technologies, we provide detailed insight into all sorts of thin film processes: deposition, etching, cleaning, implantation and diffusion. We work, with guaranteed confidentiality, for numerous customers, ranging from large multinationals and research institutes to smaller enterprises and new start-ups.

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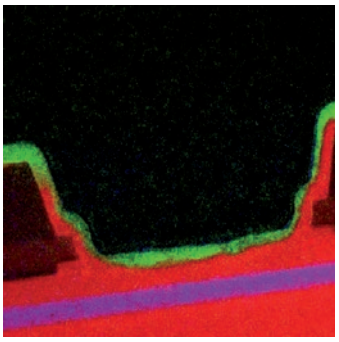

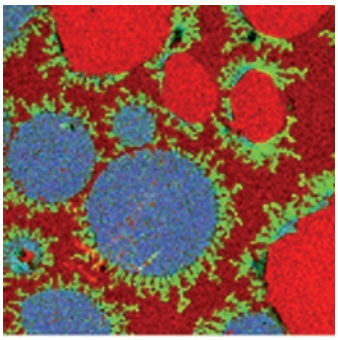

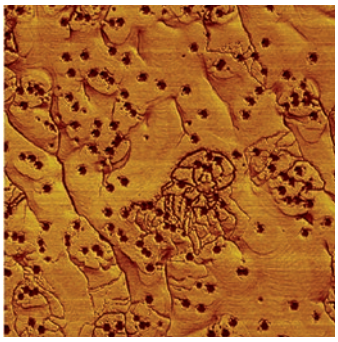

Property	Specification	Technique
Topography, roughness	Surface	SEM, AFM, Profilometry
	Buried interface	Cross-section SEM, TEM
Layer thickness, surface coverage	Non-destructive	Ellipsometry, XRR, SEM(-EDX), RBS
	Cross section	SEM, TEM
Layer composition	Large area	RBS, XRF, XPS, ICP
	Locally	SEM-EPMA, LA-ICP-MS, Auger, (TOF-)SIMS, FTIR, Raman
Depth profiling	Main elements	XPS, RBS, LA-ICP-MS
	Dopants, impurities	(TOF-)SIMS
	Small area, 3D	Auger, (TOF-)SIMS, Confocal Raman
	Cross section	TEM-EDX/EELS
Surface condition, contamination	Large area	XPS, ATR-FTIR, SERRS, RBS
	Locally	Auger, TOF-SIMS
	Traces	TXRF, TOF-SIMS, VPD-AAS, Ion Chromatography
Crystallinity, texture		XRD, RBS, TEM, SEM-EBSD, Raman
Mechanical, electromagnetic, thermal, …		SPM, Kelvin, Ellipsometry

World-class expertise – working for you

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