

A dual-gas cryostat and an imaging ellipsometer

EP³
Nanofilm Tehnologie www.nanofilm.de

Imaging ellipsometer

Nanofilm's latest imaging ellipsometry platform, the EP³, overcomes a major limitation of conventional ellipsometers by enabling highly precise thin-layer thickness measurements (resolution ≈ 0.01 nm) while simultaneously providing real-time ellipsometric contrast micrographs and video at a spatial resolution on a par with optical microscopes (maximum $< 1 \mu\text{m}$). Hence, the smallest heterogeneities or structures can be identified and imaged allowing relative and absolute thickness measurements to be constrained to a small region of interest rather than averaged over a large area, as is common with most ellipsometers.

The extensive and easy-to-use graphical software interface provides complete PC-based control of the instrument

along with rapid three-dimensional mapping of layer thickness, refractive index and other optical properties. Additionally, customized routines can be developed using the scripting language EP³-view to add functionality and tailor the software to the user's unique application.

The EP³ is available in single or multi-wavelength configurations or as an imaging spectroscopic system. Additionally, a series of complementary options are available, including flow chambers for measurements in liquid environment, film balances and troughs for Langmuir–Blodgett applications, active vibration isolation systems and others. Applications for this platform include thin homogeneous or structured layers, polymers, organic layers, biochips and corrosion.

N-HELIX
Oxford Cryosystems

www.oxfordcryosystems.co.uk

Cryostat without liquid cryogens

Oxford Cryosystems announce their new open-flow helium/nitrogen cryostat, the N-Helix, which does not use liquid cryogens. A development of their Helix system designed for single-crystal X-ray diffraction, the new model has the ability to use both helium and nitrogen gas. N-Helix is totally programmable, and has the ability to reach and maintain any specific temperature within the range 28 to 300 K, with a stability of greater than 0.3 K. The sample temperature is not affected by switching the supply of helium or nitrogen gas, thus enabling long-term experiments to be performed.

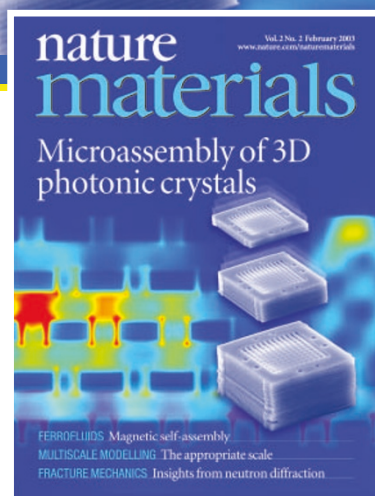


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These notes are compiled in the Nature Materials office from information provided by the manufacturers.