

X-Max TEM BIG performance at the NANO scale

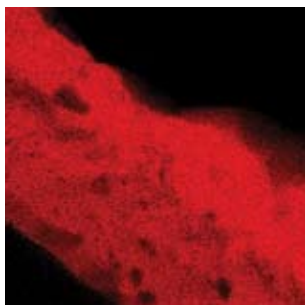
New large area Silicon Drift Detector now offers Maximum Productivity from a TEM

The Facts

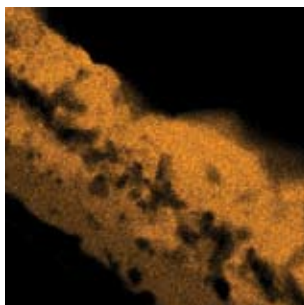
- 80mm² sensor guarantees high counts with best ever SDD solid angle giving excellent analytical performance
- Faster acquisition rates mean faster mapping and linescans
- Excellent resolution particularly at low energies including Be detection
- LN₂ free operation is safe, convenient and vibration free ensuring the TEM is always ready for use
- Motorised retraction as standard

80mm²

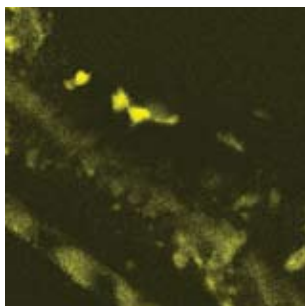
Specially designed to extract the highest level of qualitative and quantitative information from the TEM



O K Series



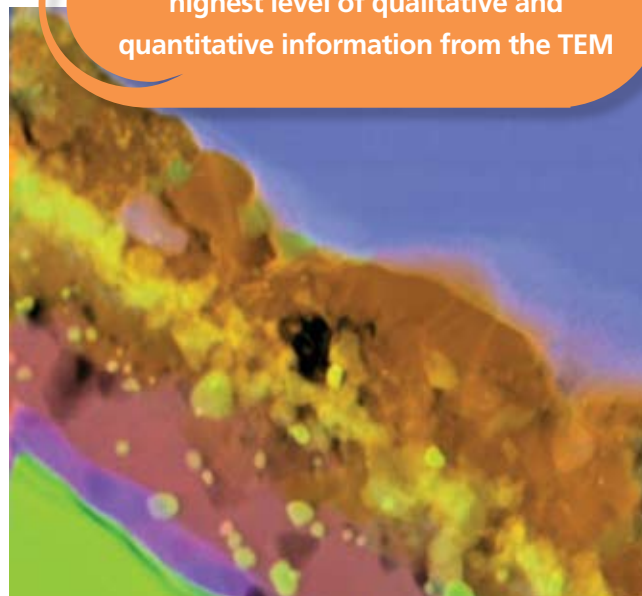
Al K Series



Ti K Series



Ni K Series



Data courtesy of M.Q. Chu, F. Schennach, H.E. Evans and I.P. Jones, School of Metallurgy and Materials, University of Birmingham, UK

Quantmaps studying the formation of a corrosion resistant oxidation layer on a superalloy. Calculated from a SmartMap collected for 45 minutes at 30,000cps acquisition rate.

OXFORD
INSTRUMENTS

The Business of Science®

80mm² very large area SDD detector for EDS analysis on TEM

Sensor Size	Single sensor 80mm ² active area
Resolution Guarantees	Resolution guaranteed and tested on installation using an INCA x-stream2 pulse processor*, between 10°C and 30°C up to 1,500m <ul style="list-style-type: none"> • Mn Ka resolution guaranteed to be less than 129eV at 20,000cps • F Ka resolution guaranteed to be less than 75eV at 20,000cps • C Ka resolution guaranteed to be less than 72eV at 20,000cps
Detector Stability	Peak position and resolution guaranteed to change by no more than 1eV between 1,000cps and 100,000cps
Detection Range	Detection from Beryllium (Be) to Uranium (U)
Low Energy Performance	All X-Max detector resolution measurements are made in compliance with ISO15632:2002
Maximum Throughput	Greater than 200,000cps
Cooling	LN ₂ -free, vibration free, Peltier Cooling <ul style="list-style-type: none"> • Requires only an electrical supply • No external compressors, chillers, or gas lines required – no vibration • Cools down from room temperature to achieve the stability of accurate quant analysis in less than five minutes
Window	SATW ultra-thin polymer window
Detector Geometry	Optimised detector design to maximise take off angle and solid angle when installed on TEM
Retraction	Motorised slide for quick retraction at lower magnifications

***X-Max** detectors are only compatible with an **INCA**x-stream2 pulse processor.

visit www.oxford-instruments.com/xmaxtem

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