

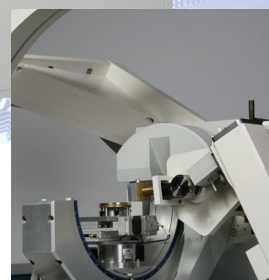
Thermo Scientific ARL EQUINOX 6000

Four Circle X-Ray Diffractometer

The Thermo Scientific™ ARL™ EQUINOX 6000 is a multi purpose X-ray diffractometer designed specifically for high level research applications. The system utilizes an unique tall vertical goniometer in θ/θ or $\theta/2\theta$ mode with an attached high precision Eulerian cradle. It is the perfect diffraction system for materials science including thin layer analysis, reflectometry, micro diffraction, residual stress analysis, texture measurements. Data is measured in “real time,” which present many advantages in kinetics experiments or combined analyses.



Perfect for advanced research applications.



Research

Environment / Geology



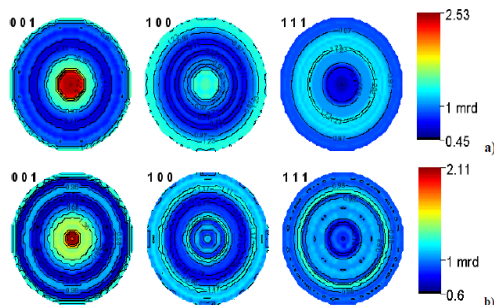
Polymers /
Biomaterials

Metallurgy



Electronics

Photovoltaic



{001}, {100} and {111} pole figures recalculated from the OD refined by combined analysis for the a) as-cast and b) cast and sintered PZT samples synthesised by the pure PbO flux route. Linear density scale, equal area projection.

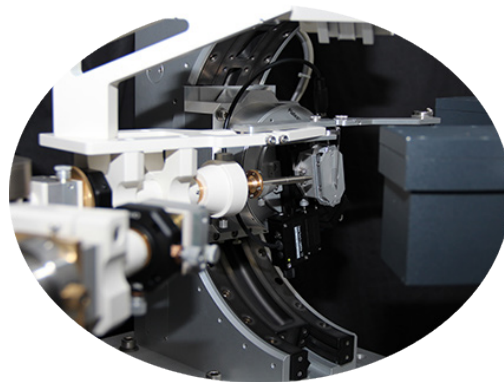
Real time acquisition
Extremely accurate
Easy to use
No alignment needed

Very reliable
Superb resolution
No maintenance

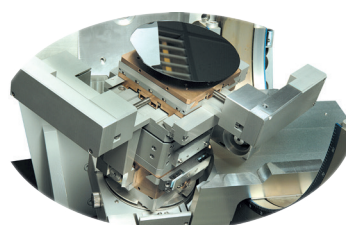


Specifications

X-ray source	Generator: 3500 W (60kV/60mA - Option 30kV limitation) Standard sealed X-Ray tube (Cu, Co, Cr, Mo, ... radiation)
Detector	Curved Position Sensitive X-ray Detector, CPS120 Curvature radius: 250mm Acquisition in real time over 120° 2Theta Option: CPS590 (500mm, 90° 2Theta)
Goniometric table	Theta / Theta or Theta / 2 theta column Centered Eulerian Cradle, Chi 180° / Phi rotation Motorization per step with encoder, up to 5/10000° Acquisition in asymmetric mode
Sample holders	Bulk, Thin film, Powder Reflection or transmission mode Zero background sample cup Support with adjustment in height and oscillation Mapping attachment (X, Y translations)
In-situ camera	High and low temperature attachment Tensile stage
Optic	Monochromatic (Germanium, Graphite or X-ray mirror) Collimation device (collimator, X-ray capillary)
Computer	Windows© 8, 7 Vista, XP
Software	Simultaneous data acquisition in real time Combined analysis - Texture, stress, reflectivity, phase, ... Texture analysis - Graphic analysis of ODF, PFs, IPFs, ... Stress analysis - Scan Phi or sin2(Psi) Reflectivity fitting by various models Thin film and multilayer analysis (Film thickness, absorption models, ...) Peak search and deconvolution with several shapes Microstructure analysis Search match and quantification Degree of crystallinity determination Cell parameters, crystallite size, lattice strain Crystal structure analysis Microstructure analysis Rietveld analysis Phase transition, dynamic studies Free open database, COD Option : ICDD PDF2 or PDF4 databases
Power	30-32A / 208-230V / 50-60 Hz
Cooling water	Flow: ≈ 3,5 L/min - T°C: ≈18 to 25 °C
Weight	~500 kg
Dimensions	1966 mm H x 1145 mm D x 1433 mm W



4 circle diffractometer in horizontal configuration with dual X-ray source (Cu / Mo) and dual detection (XRD / XRF).



Multi axis sample handling thin film attachment.



4 circle high temperature attachment
DHS 1100, dome hot stage for 4 circle goniometers
Non ambient X-ray studies up to 1100°C.

www.thermoscientific.com/xrd

©2016 Thermo Fisher Scientific Inc. All rights reserved. Microsoft and Windows are registered trademarks of Microsoft Corporation. ISO is a trademark of the International Standards Organization. All other trademarks are the property of Thermo Fisher Scientific and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

Africa +43 1 333 50 34 0
Australia +61 3 9757 4300
Austria +43 810 282 206
Belgium +32 53 73 42 41
Canada +1 800 530 8447
China +86 21 6865 4588

Denmark +45 70 23 62 60
Europe-Other +43 1 333 50 34 0
Finland/Norway/Sweden
+46 8 556 468 00
France +33 2 38 80 45 45
Germany +49 6103 408 1014

India +91 22 6742 9494
Italy +39 02 950 591
Japan +81 45 453 9100
Latin America +1 561 688 8700
Middle East +43 1 333 50 34 0
Netherlands +31 76 579 55 55

New Zealand +64 9 980 6700
Russia/CIS +43 1 333 50 34 0
Spain +34 914 845 965
Switzerland +41 61 716 77 00
UK +44 1442 233555
USA +1 800 532 4752



Thermo Fisher Scientific (Euclybens) SARL,
Switzerland is ISO certified.



Thermo

SCIENTIFIC

A Thermo Fisher Scientific Brand