

Thermo Scientific ARL EQUINOX 3000 Series

X-Ray Diffractometer Powder Diffraction

The Thermo Scientific™ ARL™ EQUINOX 3000 measurements are very fast compared with other diffractometers in that the unique Inel curved detector can measure all diffraction peaks simultaneously. Due to this acquisition in real time, all kinetic studies are facilitated.

The Thermo Scientific™ ARL™ EQUINOX 3500 is an evolution of ARL EQUINOX 3000 model. It is exactly the same configuration except that it works with a bigger radius of curvature detector. So, obtained data have a better resolution.



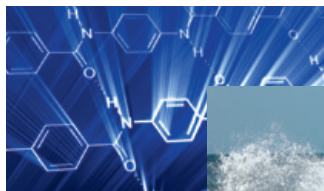
No scanning required. Measures the whole 2 theta range simultaneously and in real time.

The ARL EQUINOX 3000 is a research-grade diffractometer with a very high resolution diffraction system providing the user a choice of features including higher resolution detectors, a larger sample area and choice of X-ray sources.

The free space in the sample compartment is very large and will accommodate practically any sample and any sample handling device including furnaces, auto samplers, large assemblies, etc.

Real time acquisition
Extremely accurate
Easy to use
No alignment needed

Very reliable
Superb resolution
No maintenance



Research



Environment



**Geology, Cement,
Mining**



Metallurgy



Pharmaceuticals



Education

Thermo
SCIENTIFIC

Specifications

X-ray source	Generator: 3500 W (60kV / 60mA - Option 30kV limitation) Standard sealed X-ray tube : Cu, Co, 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 – EQUINOX 3500)
Goniometric table	No moving parts Acquisition in asymmetric mode
Sample holders	Fixed, with or without sample rotation Reflection or transmission mode Sample changer: 6 or 30 positions Thin layer attachment
Special camera	Heating camera: low and high temperature Humidity chamber, Electrochemistry cell
Optic	Monochromatic
Computer	Windows© 8, 7 Vista, XP
Software	Real time diffractogram display Multiple and automatic recording Peak search Deconvolution with several shapes Phase identification and quantification Degree of crystallinity determination Cell parameters, crystallite size, lattice strain Crystal structure analysis Transition phase Thin film (reflectometry, etc.) Rietveld analysis Free open database for search match 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
Dimensions	1565 mm H x 750 mm D x 1040 mm W EQUINOX 3000 1815 mm H x 744 mm D x 1206 mm W EQUINOX 3500



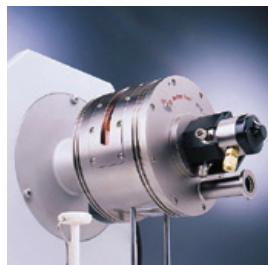
You want to perform transmission analysis? Choose either the Sample Spinner for reflection and transmission analysis on powder samples or the capillary sample holder for Transmission mode analysis depending on your needs.



You need to analyze several powder samples a day? Optimize your throughput with the 6 or 30 position sample changer.



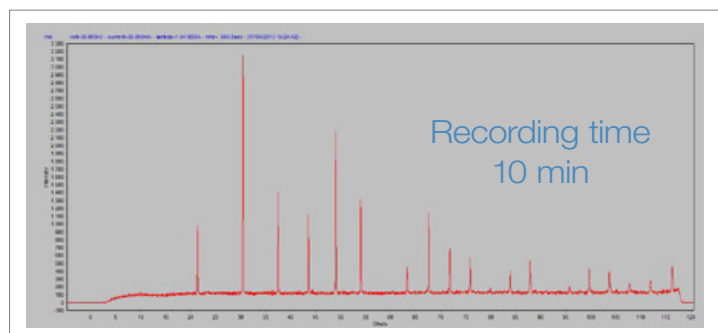
You need to perform grazing incidence measurement? Try our Thin Layer analysis attachment.



HTK1200N

TTK450

This system allows you to work with controlled temperature or atmosphere chamber. Anton Paar and other suppliers chambers can be available depending on your needs.



LaB6 powder sample recorded on ARL EQUINOX 3000 in reflection mode.

www.thermoscientific.com/xrd

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