



Scientific Equipment

MMA

MINI MATERIALS ANALYZER



AAS



HPLC



ICP-OES



ICP-TOFMS



Rheometry

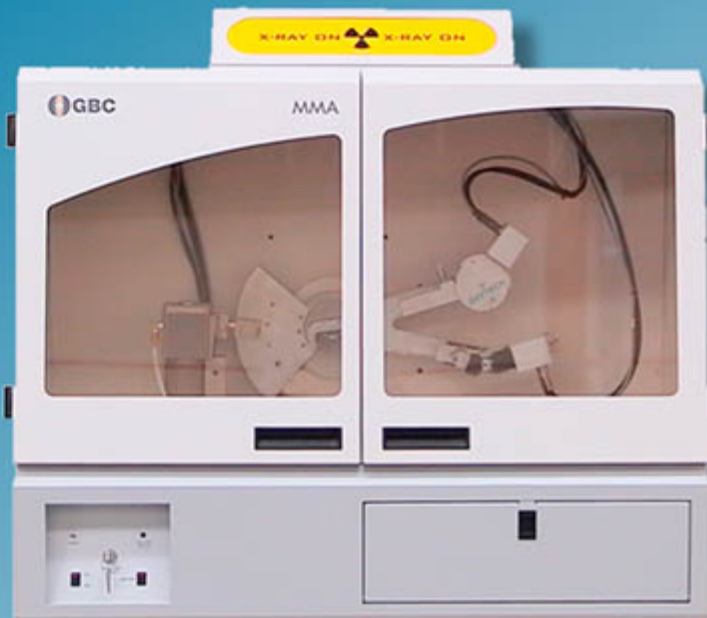


UV-Vis



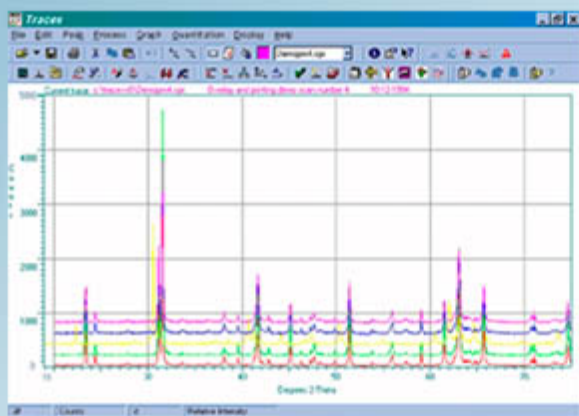
XRD

The MMA is the latest XRD product from GBC Scientific Equipment - a recognised leader in precision laboratory instruments. The MMA represents the next generation in X-Ray diffractometers.

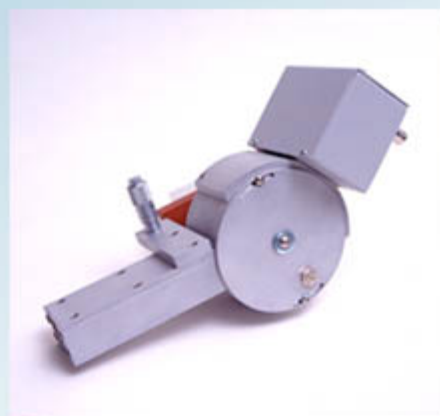


Its many advantages include:

- Interchangeable parallel beam and focussing geometry with variable radius.
- Interchangeable powder stage, Eulerian (Texture) Cradle, high temperature stages, auto sample changers.
- Parallel beam detector with 0.4 degree collimator and LiF monochromator.
- Focussing detector with interchangeable Soller-slit and Graphite monochromator.
- Both detectors can be permanently mounted.
- XOS™ polycapillary optic giving a 10x10mm quasi-parallel beam.
- X-Ray fluorescence detector for simultaneous XRF and XRD as an aid to quantitative identification.
- Revolutionary Harmonic gearbox goniometer.
- Software controlled shutter.
- Lightweight (<100kg) and ideal for field use.



Traces: the latest in state-of-the-art XRD software



Interchangeable parts means versatility

MMA

SPECIFICATIONS



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XRD

X-Ray Generator

Type	IGBT Technology
Max. Power	3.0kw
kV range	0-60kv
mA range	0-80mA
Power	230 VAC +/- 10%
Stability	0.005% for full load change 0.005% for 10% rms line change
Ripple	0.03% rms
Long Term Stability	0.01% over 8 hours

Goniometer

Type	Twin co-axial harmonic Independent axes Zero Backlash
Radius Range	180 to 250mm, variable -30° to 160°, depends on focussing configuration
Min. Step Size	0.002°
Slow Speed	120°/min
Scanning Speed	with multi-pass averaging 0.0002°/min to 60°/min
Optics	Interchangeable slit focussing, parallel (polycapillary) optic & mirror
Monochromators	Graphite with removable soller slit, Glancing Incidence with LiF crystal
Stages	Standard Stage, Eulerian Cradle - many custom stages can be fitted.

Detectors & Counting Electronics

Detector Type	Xe proportional, Be Window
Linearity	to 50000 CPS
HV	to 2kV
PHA	Computer Controlled
Option	MBraun 50mm linear PSD Area Detectors

Eulerian Cradle

Type	Micro-thin bearing and timing belt
Ranges	Chi +105° to -155°
Min Step Sizes	Phi 360° Chi 0.002° Phi 0.008

Optics

Slit Holder	Soller Slit and interchangeable slits Pre-aligned dovetail
Parallel Beam	XOS® Polycapillary with 10 X 10mm cross section Graded d-spacing mirror

Options

Options Type	Fluorescence Detector Si PIN Diode Peltier Cooled, mounted on Screw - in slide mount Amp/Power Supply/Interface/ software/MCA Board included
Options - Auto Loader Type	5 Samples, rotary
Options	High Temperature Stages Controlled environment stages



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