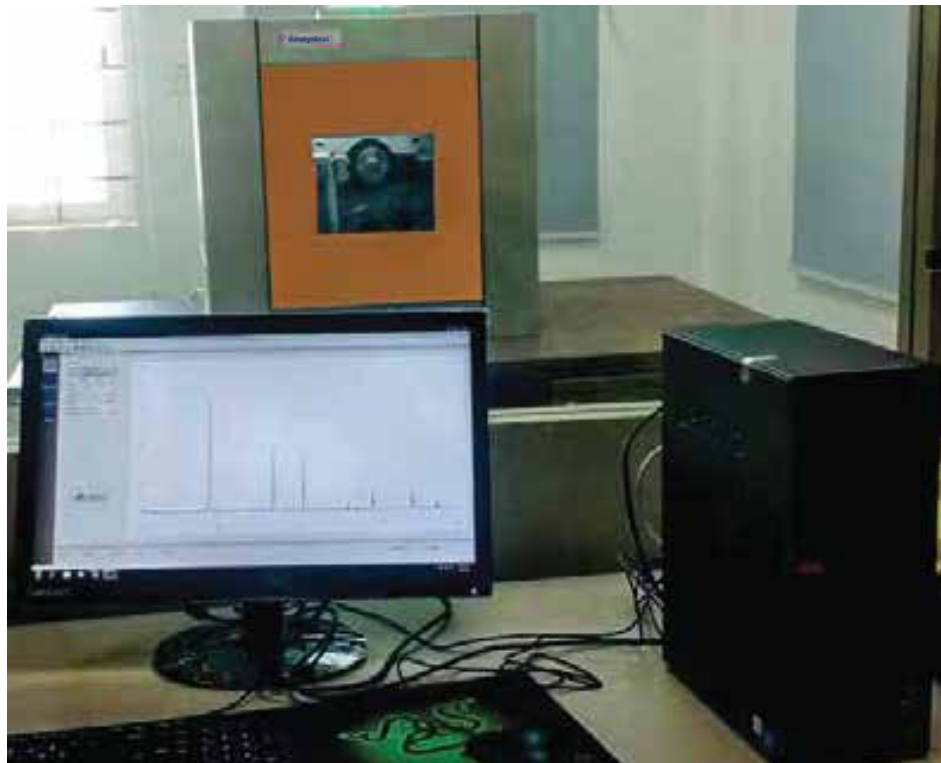


Desktop X-RAY DIFFRACTION ANALYZER

XRD 3010



EPC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

▶▶ Application

XRD 3010 mainly used for the phase characterization, quantitative analysis, crystal structure, material structure, crystal orientation, macroscopic and microscopic stress determination, crystal size, crystallinity determination, etc. By the principle of Scherrer, High precision is assured. Widely used in geology, oceanology, biology, chemistry, nuclear station research as well as industrial and institute research.

▶▶ Operation Requirements

Installation Requirements

- Operation Temperature : 10~30°C
- Moisture: 30%~70%
- Magnetic field: None should exist
- Good air flow, no direct contact with high temperature
- Dust, explosives, Corrosive should be avoided

Equipment Voltage

- Power: single phase AC220V $\pm 10\%$
- Frequency: 50Hz ± 1
- High frequency device: arc and such should not be around main cable
- Grounding Device: Resistance $< 4\Omega$;
- Supply power capacity above 3KW

Cooling Water

- PH: 6.5-7.5 ;
- Conductivity: $< 200\mu\Omega/\text{cm}$;
- Hardness: $< 50\text{ppm}$;
- Residuals should not exist.

▶▶ Structure Layout

XRD 3010 includes Proportional counters (PC) or scintillation counter (SC), Silicon drift detector (SDD), High speed one-dimensional semiconductor array detector. Detector work in both 0D and 1D for data collection and analysis. Detector shall be capable to suppress fluorescence.

▶▶ Optical System layout

- F - Focus
- SS - Scatter slit
- R - Diffraction diameter
- DS - Divergent slit
- RS - Receiving slit
- S1/S2 - Soller slit

►► Specification

X-Ray Tubet	
Tube Type	Ceramic or glass tube are optional
Target	Cu, Fe, Co, Cr, Mo, Ti, W
Default	Cu
Focus size	1×10mm
Power	2KW
X-ray Generator	
Tube voltage	10-30KV or 10-40KV
Tube current	5-20mA or 5-30mA
Filament current	DC 0-3A
Stability	±0.001%, Voltage deviation 10%
Max power	600W or 1200W or 1500W
Vertical Goniometer	
Radius	150mm
Scan Type	$\theta/2\theta$ linkage with continues and step scanning
2 θ Scan range	-3°- 150°
2 θ Detecting range	+1°- 150°
Position Speed	1000°/min (2 θ)
Scan Speed	0.01 - 100°/min
2 θ Min stepping	0.0002°
Accuracy	0.001°
2 θ Repeatability accuracy	0.0005°
Slit	
Divergent slit (DS)	θ shaft changeable slit (Max 4.2°)
Scatter slit (SS)	0.5°/1°/2°
Receiving slit (RS)	0.1mm/0.2mm/0.3mm/0.4mm
Soller slit	±2.5°
X-ray extraction angle	6°

Proportional Detector (PC)	
Max counting	1×10 ⁶ cps/s;
Spectrum resolution	≤20%;
Counter voltage	0-2100V; High-voltage stability above 0.005%
Cooling Water System	
Supply Power	220V/50HZ
Flow	3L/min
Pressure	0.1Mpa-0.30.1Mpa
System temperature	18-30°, control accuracy : ±1°
Control panel light	Power, Cooling, Flow indicator
Measurement and Weight	
Measurement	740×600×630mm
Weight	75Kg

▶▶ **Safety Feature/warning indicator**

- X-ray On/Off Status indicator
- X-ray Shut off on failure
- Emergency Stop Switch

▶▶ **Sample Holder**

- Standard Sample Holder for accommodating both solid(Metallic) and powdered sample

▶▶ **Data Analysis Software Instruction**

The system includes data collecting and application package, one is for data collecting while the other is for analysis.

▶▶ **Software**

- Data Collecting Software
- Data Analysis Software
- Data Calibration

▶▶ **Servicing, Validation, Trainings and Preventive Maintenance :**

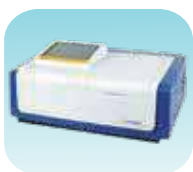
- Servicing : We have team of service engineers who can attend to any make of instrument promptly @the most affordable cost.
- Trainings :We also take up preventive maintenance to reduce downtime of instrument's Trainings.
- AMC's/CMC : We offer user training both in-House and at customer sites on instrument principles, operations, troubleshooting.
- Validations : We have protocols for carrying out periodic Validations as per GLP/ GMP/USFDA norms.
- Instruments : We offer instruments/Renting Services Modules like pumps, detector etc. on Rent.



▶▶ **About Analytical Technologies**

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the globe. Analytical Technologies Limited is an ISO :9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

▶▶ **Our Products & Technologies**



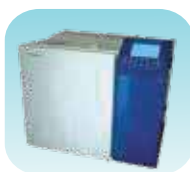
UV/VIS Spectro 2080+ Double Beam



Infra FTIR



Optima Gas Chromatograph 3007



Optima Gas Chromatograph 2979 Plus



Flash Chromatograph



Atomic Absorption Spectrophotometer



Liquid Partical Counter



Optical Emission Spectrophotometer



DSC/TGA



Semi Auto Bio Chemistry Analyzer



HEMA 2062 Hematology Analyzer



Micro Plate Reader/Washer



URINOVA 2800 Urine Analyzer



Total Organic Carbon 3800



Fully Automated CLIA



NOVA-2100 Chemistry Analyzer



PCR/Gradient PCR/ RTPCR



TOC Analyzer



Laser Particle Size Analyzer



Ion Chromatograph



Water purification system

▶▶ **Regulatory compliances**



▶▶ **Corporate Social Responsibility**

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Analytical Foundation

1. Research & Innovation Scientist's awards / QC Professional Award: Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of Yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

▶▶ **Reach us @**



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