
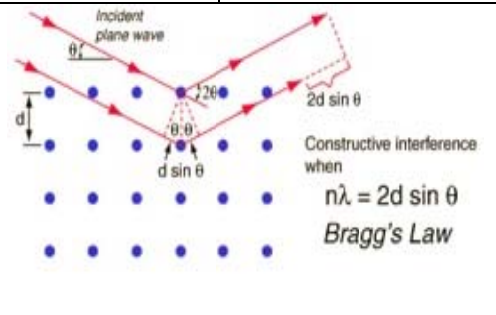
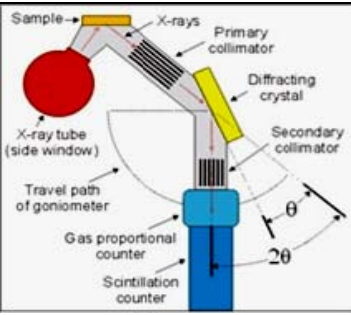


Name of Machine	X-Ray Fluorescence (XRF)				
Make	PANalytical, Netherland		Model	Axios^{MAX}	
	 <p style="text-align: center;">Constructive interference when $n\lambda = 2d \sin \theta$ Bragg's Law</p>				
Specification					
<p>The salient features/Specifications of the system are as follows:</p> <ol style="list-style-type: none"> 1. Wavelength dispersive (WD-XRF) Machine (power: - 3KW,60kV-160mA) is used for detecting the elements. 2. It is a nondestructive analysis technique for the Major oxides and Trace elements present in the sample covering elements from Boron to Uranium. 3. Analysis can be done on pressed powder pellets made from fine powder. 					
Working principle:					
<p>A wavelength dispersive detection system physically separates the X-Rays according to their wavelengths, the x-rays are directed to a crystal, which diffracts (according to Bragg's Law) the X-Rays in different directions according to their wavelengths (energies).</p>					
Application					
<ul style="list-style-type: none"> • Quantification the elements in Hard rocks and sediment/Soil of geological past • Quantification of Metals & alloys in synthetic material, • Geological samples, • Filter samples. • Environmental Applications 					
User Instruction					
<ol style="list-style-type: none"> 1. For Major oxides and trace elements, samples should be provided in powder (-200 mesh) form otherwise grinding charges will also applicable as per the rate list. 2. Sample weight should not be less than 20gm for analysis. 3. Data generated will be provided on CD (Compact Disc) or DVD (Digital Versatile Disc). 4. Students/Research scholars will prepare pellets for analysis by their own. 					
Contact Person					
In-Charge	Dr. Anupam Sharma (0522-2742974); <i>Email anupam110367@gmail.com; anupam.sharma@bsip.res.in</i>				
Staff:	Dr. Kamlesh Kumar: kamlesh_kumar@bsip.res.in (0522-2742969) Amrit Pal Singh Chaddha: apsingh.chaddha@bsip.res.in (0522-2742978)				
charges					
S. No.	Instrument/Analysis	Research Student	Govt. Organization (University/Research Institutes)	Private sector/ Industry	Remarks (if any) (Rates quoted = Rs.)

1.	XRF Lab a. Major elements (max. 10 elements in Geological samples) b. Trace elements (up to 5 elements and Rs. 150/- will be charged extra for each additional element)	500.00 500.00	800.00 750.00	1800.00 1500.00	<ul style="list-style-type: none"> • Sample should be crushed and brought in powder form, else charges will apply. Only solid samples in powder form with particle size <60µm. • Minimum quantity of 5gm
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Guideline

1. The analytical data/spectra provided cannot be used as certificates in legal disputes.
2. Service charges (including GST) will be payable in advance (Draft/RTGS/NEFT) in favour of "The Director, BSIP, Lucknow". Payable at Lucknow
3. Separate samples should be sent for different analysis. Samples will not be analysed until payment is received.
4. In case of prepared samples, the user must specify the procedure that how the sample was prepared (complete methodology).
5. In all correspondence related to analysis, our reference number must be mentioned.
6. Individual Scientists and Research fellows should send their application and samples through their project head. Discount in analysis charges for research fellows of universities/institutes will be decided by the Director in consultation with respective lab.
7. Interpretation of data/spectra will NOT be done.
8. It is mandatory for user to acknowledge the facility in their research work and communicate the same to the respective laboratory and the Director, BSIP, Lucknow for onward communication to DST, New Delhi.

For Lab visit, it is mandatory to take prior appointment from Director, BSIP before your visit. The application should be sent through department/Senior official of institution/Company. No deviation will be allowed for the timings.

To be filled in by the user while submitting the form

Job No as in XRF CF

Date of submission:

REQUISITION FORM

BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES, LUCKNOW

53, University Road, Lucknow, Ph. 0522-2740008, 2742991

(XRF Central Facility)

Geochemistry Lab

(Information to be filled in by the user)

Name: _____

Address: _____

Email and Mobile No.: _____

Category (Inhouse/inhouse sponsored/Govt. organization/private): _____

Number of samples: _____

Nature of samples (with details): _____

Scientific Objective of this study: _____

Additional information, if any: _____

Location (Lat & Long): _____

Exposed Section/Trench/Core/Others: _____

No. of Major and Trace elements to be analyzed: _____

(For office use only)

Lab Reference No.:

R.P.C.C./ Registrar: Kindly raise the bill for the above

Total Charges:

Taxes:

Grand Total:

To be filled in by the user while submitting the form

Sample Information form
BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES, LUCKNOW
53, University Road, Lucknow, Ph. 0522-2740008, 2740399
(XRF Central Facility)
Geochemistry Lab

(Information to be filled in by the user)

Name: _____

Address: _____

Email and Mobile No.: _____

Category (Inhouse/inhouse sponsored/Govt. organization/private): _____

Number of samples: _____

Sl. No.	Sample ID	Type/Nature of Sample	Quantity	Year of collection	Lat./Long.	Remarks, if any
1						
2						
3						
4						
5						