

Powder X-Ray Diffractometer

Powder X-Ray Diffractometer which is commonly known as PXRD was recently installed in the Postgraduate Institute of Science, University of Peradeniya. This instrument is a high end instrument with latest development in PXRD instrumentation. X-ray diffraction is a process in which X-rays fall on a crystalline material are reflected by the atoms, which are arranged in ordered arrays, if certain geometrical conditions are met. Since, the resulting X-ray diffraction pattern is a characteristic feature of the material, this technique is used as a high precision material identification method. The Bruker D8 Advanced Eco Powder X-ray Diffraction system can be used for nearly all X-ray diffraction applications, such as qualitative and quantitative phase analysis, stress and texture measurements, particle size analysis, GIXRD and structure determination



Bruker D8 Advanced Eco X-ray Diffraction system

PXRD Analysis Rates

User category	Method	Cost per sample (Rs)
Undergraduate (University of Peradeniya)	Diffractogram only	750.00
	With analysis	1,250.00
MSc/MPhil/PhD – PGIS registered students	Diffractogram only	750.00
	With analysis	1,250.00
Other Universities/Research Institutes/ Other Government Institute	Diffractogram only	1,500.00
	With analysis	3,000.00
Commercial sample (Industrial sector)	Diffractogram only	3,000.00
	With analysis	6,000.00

To avail PXR D facility, kindly follow the following instructions:

- Please submit properly labeled samples in powder form along with the payment and the form to the PXR D laboratory.
- Please make sure to bring a CD to store the output of the PXR D.
- For University of Peradeniya Scholars-
 - Payments can be made to the schroff counter at the Postgraduate Institute of Science.
 - Payment can also be made via cheque written to the “Director, Postgraduate Institute of Science” with ‘**PXR D Facility**’ written on the reverse.
- For outsiders wishing to avail PXR D facilities-
 - Payment can be made via cheques written to “Director, Postgraduate Institute of Science” of with ‘**PXR D Facility**’ written on the reverse.

Note:

Kindly ensure that the payment is made and the payment slip is produced at the laboratory, prior to obtaining access to the PXR D.

Agilent Microwave Plasma Atomic Emission Spectrophotometer (MPAES-4200)



System can be used to detect elements up to upper ppb levels. Sensitivity is greater than flame atomic absorption spectrophotometer (FAAS) but less than graphite furnace atomic absorption spectrophotometer (GFAAS)

Milestone Ethos Easy Microwave Digestion System



System has nine high pressure, high temperature TFM vessels (SK15 rotor) which can be suitable for all sample digestion applications for elemental analysis.