LIST OF LABORATORY INSTRUMENTS WITH THEIR BRIEF DESCRIPTION, FUNCTIONALITIES AND CHARGES FOR ANALYSIS OF SAMPLES

ICAR-NBSS&LUP, Regional Centre, Bangalore - 560 024

Contact :

Director, ICAR-NBSS&LUP
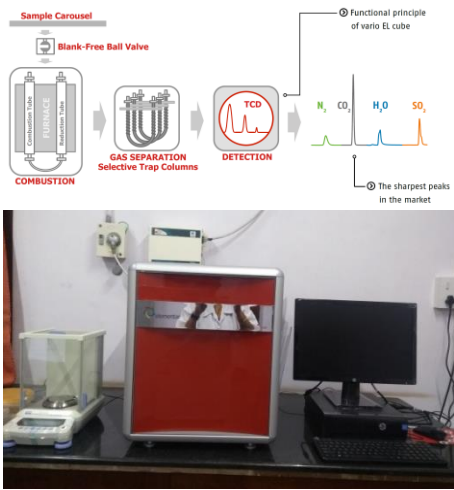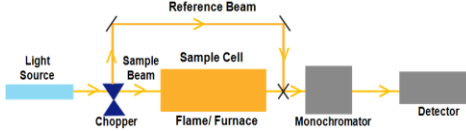Amravati Road, Nagpur - 440 033
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The Demand Draft should be in favour of **"Director, ICAR-NBSS&LUP, Nagpur"**
Mention Instruments Code & Charges   *(GOODS AND SERVICE TAX 18 %)*

SrNo.	Instruments Code	Description	Charges per Sample (in Rs.) Without Tax	Instruments Photo

1	**RCB-CHNS**	**CHNS Analyzer**
		 Elementar, Germany (vario EL cube series)
		 Estimation of element concentrations of total carbon (C), Hydrogen (H), Nitrogen (N) and Sulphur (S) in the given sample
		     The CHNS Analyzer find utility in determining the percentages of Carbon, Hydrogen, Nitrogen and Sulphur of organic compounds, based on the principle of "Dumas method" which involves the complete and instantaneous oxidation of the sample by "flash combustion". The combustion products are separated by a chromatographic column and detected by the thermal conductivity detector (T.C.D.), which gives an output signal proportional to the concentration of the individual components of the mixture.
		 Applications
		 The present applications are :
		   1. Estimation Total C,N and S in soil and water sample
		 User Instructions
		   1. Sample must be homogenised
		   2. Sample weight should be in between 40-50mg
		   3. Liquid samples should have constant weight
			3000/-	

| 2 | RCB-AAS | **ATOMIC ABSORPTION SPECTROMETER**
Pinnacle 900F Atomic Absorption Spectrometer
PerkinElmer Singapore Pvt. Ltd.

Flame Analysis PinAAcle 900F flame mode features a true double-beam design.
a) Deuterium background correction ensures maximum sensitivity and accuracy over a wide wavelength range.
b) The Align Burner automatically adjusts the burner head position—vertically and horizontally.
c) Hollow Cathode Lamps: Ca, Mg, Cu, Fe, Mn, Zn.
Applications
The present applications are:
  1) Estimation of Available Ca, Mg, Na, K, Cu, Fe, Mn, Zn in soil samples.
  2) Estimation of Ca, Mg, Na, K, Cu, Fe, Mn, Zn in water samples.
User Instructions
  1) A minimum of 40 gm of soil sample is required for the above analysis.
  2) A minimum of 40 ml of water sample is required for the above analysis.

Charges for analysis (per element per sample) | 500/- | |
| 3 | RCB-PPMA | **PRESSURE PLATE AND MEMBRANE APPARATUS**
Soil moisture Equipment Corporation, USA

The Pressure Membrane and Pressure Plate Extractors are a modification of the suction procedure, where liquid phase water is mobilized across the porous ceramic or membrane using positive pressures. The pressure plate membrane apparatus extracts the water from soil samples over a pressure range of 1/3 to 15 bars.

Applications
The present applications are:
Estimation of water retention at different pressure (1/3 to 15 bar) in soil samples

User Instructions
  1) Soil aggregates of 10-20g is required for the above analysis | | |