

# Research facilities

## Keithley 6514 Programmable Electrometer



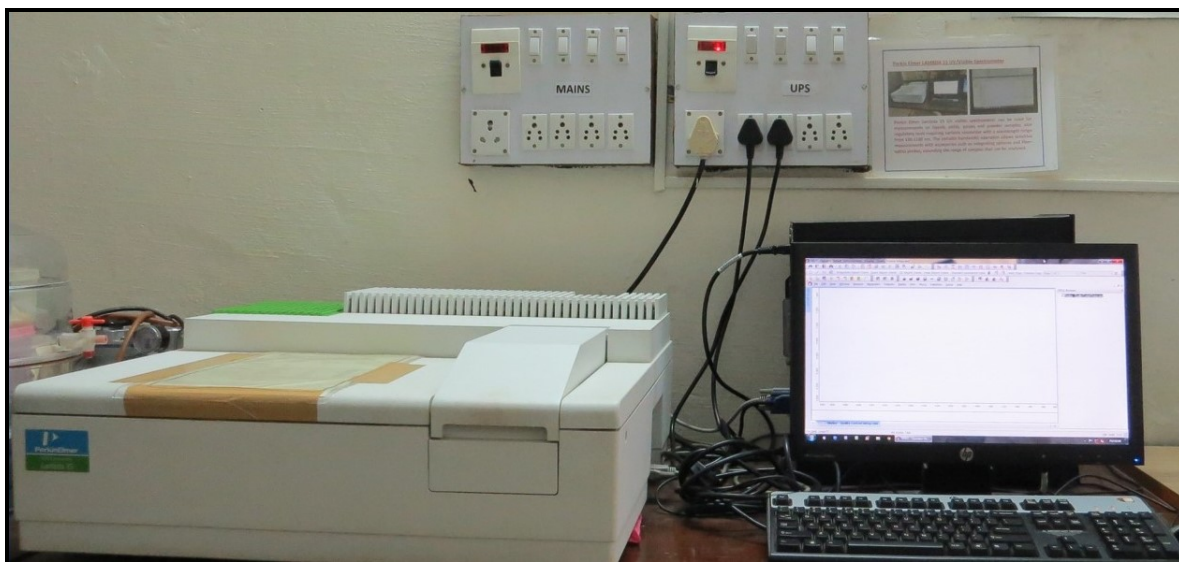
The Keithley 6514 Electrometer combines flexible interfacing capabilities with current sensitivity, charge measurement capabilities, resolution, and speed. Charge measurements are from 10fC to 20 $\mu$ C. Applications include measuring currents from light detectors and other sensors, beam experiments, and measuring resistances using a current source.

## Wayne Kerr Precision Impedance Analyzers 6500B



Wayne Kerr 6500B Precision Impedance Analyzers provide precise and fast testing of components at frequencies upto 120 MHz. The instrument can be used for many different tasks and applications including passive component design, dielectric material characterisation and manufacturing test.

## Perkin Elmer LAMBDA 35 UV/Visible Spectrometer



Perkin Elmer Lambda 35 UV visible spectrometer can be used for measurements on liquids, solids, pastes and powder samples, also regulatory tests requiring variable resolution with a wavelength range from 190-1100 nm. The variable bandwidth operation allows sensitive measurements with accessories such as integrating spheres and fiber-optics probes, extending the range of samples that can be analyzed.

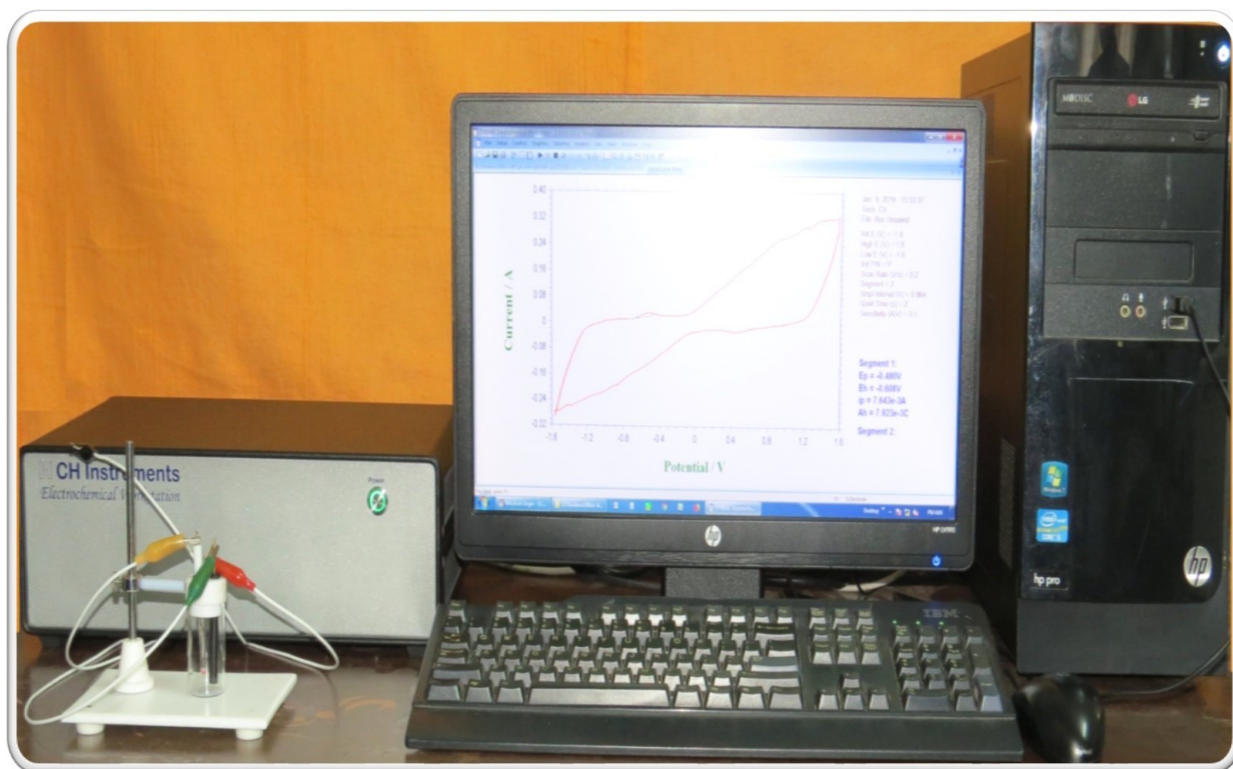
## **MTI VTC-100 Vacuum Spin Coater**



**VTC-100A is CE certified compact spin coater with vacuum chucks designed for easy and quick coating via sol-gel for wafers up to 4". The spinning speed is variable from 500-8000 rpm with two programmable segments.**

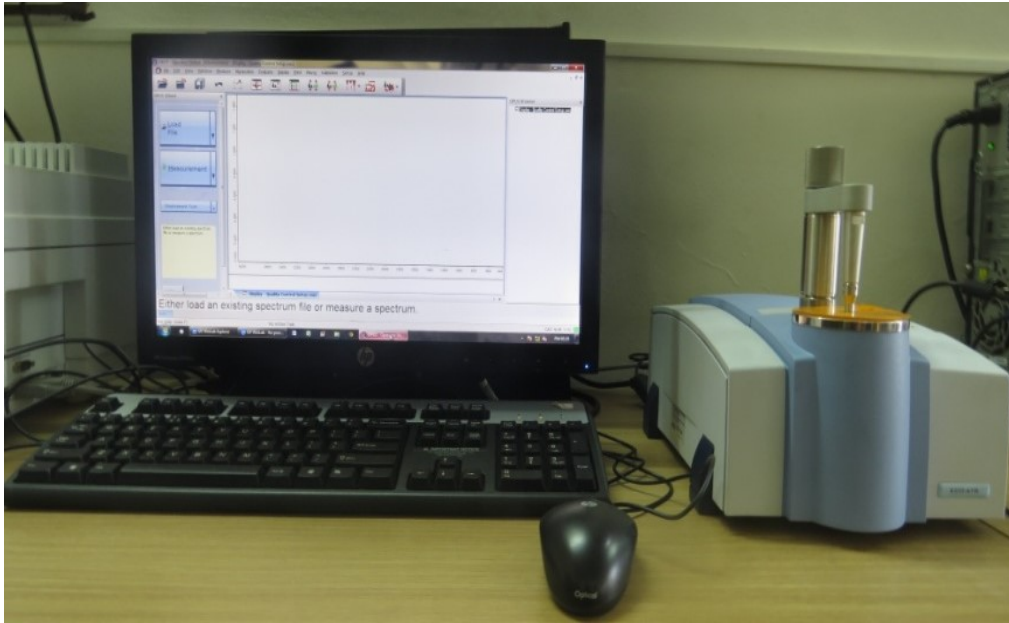


## CHI660E Electrochemical Workstation



The model 600E series instrument is a computerized general purpose potentiostat / galvanostat. The potential control range is  $\pm 10\text{V}$  and the current range is  $\pm 250\text{mA}$ . The instrument is capable of measuring current down to picoamperes.

## Bruker ALPHA ATR FT-IR Spectrometer



**Bruker Alpha Spectrometer is an easy to use FT-IR sampling method that is suitable for both solids and liquids and does not require any sample preparation. The Eco ATR is a single reflection ATR sampling module with a very high performance ratio. It is equipped with a versatile high throughput ZnSe ATR crystal for the analysis of powders, solids, pastes and liquids.**

## Spray pyrolysis

<b>Actuator</b>	<b>:</b>	<b>Stepper motor</b>
<b>Dispensing unit capacity</b>	<b>:</b>	<b>50ml &amp; 250ml</b>
<b>Dispensing rate</b>	<b>:</b>	<b>1 - 10ml / min.</b>
<b>Sprayer</b>		
<b>Drive speed X axis (min-max)</b>	<b>:</b>	<b>10 - 800mm / sec</b>
<b>Drive speed Y axis (min-max)</b>	<b>:</b>	<b>1 - 12mm / sec</b>
<b>Sprayer traverse</b>	<b>:</b>	<b>X - Y 200mm max.</b>
<b>Substrate base plate</b>		
<b>Dimension</b>	<b>:</b>	<b>150 x 150mm</b>
<b>Max. temperature</b>	<b>:</b>	<b>500° C</b>
<b>Power input</b>	<b>:</b>	<b>230V, 50Hz</b>
<b>PC connectivity</b>	<b>:</b>	<b>Serial port (RS 232)</b>





## Glove Box



## Chemical Laboratory

