Mayura Analytical LLP

Specialists in Analytical Instrumentation

Temperature Programmed Desorption Unit

Who we are

Mayura Analytical LLP is a leading organisation in analytical instrumentation, helping research institutions and industries diagnose and resolve their analytical needs. Our pioneering products are made in India for the Indian market and beyond since our inception in 1984. Our differentiating edge stems from our ability to create customised products to meet individual needs. We are widely acknowledged for our approach to chemical analysis and to customer troubleshooting. As recognised suppliers of analytical equipment to the ***Indian Institute of Science (IISc)***, *Bangalore* and ***Indian Institute of Technology (IIT, All India)***, preeminent research and technology institutions of India as well as large chemical industries such as **BIOCON**, we have cemented our standing in the market with our cutting edge expertise and solution based approach.

TPD or TPR Unit

TPD (also known as TDS or TPR) involves heating a sample while contained in a vacuum and simultaneously detecting the residual gas in the vacuum by means of a mass analyser. As the temperature rises, certain absorbed species will have enough energy to escape and will be detected as a rise in pressure for a certain mass. The TPD unit is used in the Thermal Characterisation of Catalysts (TPD) and for monitoring of on-site Temperature Programmed Reactions (TPR).

The Mayura Analytical TPD unit is the first of its kind that is wholly manufactured in India. It is a highly efficient and economical model at a fraction of the cost of its nearest competitor. With a large temperature range of up to 1000^0C, our TPD unit is sought after by many research institutions.

Mayura Analytical LLP

Specialists in Analytical Instrumentation

Features

- Built-in Direction control of input gas (carrier) and sample gas
- Pulsed (fixed volume) adsorption of known volume until saturation, and
- Six port sampling valve to control the input sample gas volume for quantitation.
- Continuous sample loading until saturation
- Computer Controlled / Programmable furnace
- Temperature Range : Ambient to 800°C
- Extendable to 1000°C
- Temperature Ramping from 1°C/min. to 10°C/min.
- Very low dead volume
- Quartz catalyst tubing for non-reactive surface
- Four filament Thermal Conductivity Detector
- Flow In-Out reference cell for compensation
- Amplification unit for signal output monitoring
- Data Acquisition unit for desorption curve recording and data interpretation
- Carrier gas control with pressure regulator and pressure gauge
- Sample gas control with pressure regulator, gauge and flow control valve

Sample applications

- Used in Thermal characterization of catalyst (TPD)
- On-site Temperature Programmed Reactions (TPR)

W: mayuraanalytical.com, E: sales@mayuraanalytical.com