

ADSORPTION IN PACKED BED (EE-1633)

DESCRIPTION

The set up consist of three vertical column packed with activated Charcoal. Columns are operated individually. Liquid feed with dye is fed to the individual column from the bottom and samples are collected from the top at regular interval of time. Rotameter is provided to measure the flow rate. Pump with a feed tank is provided for fluid flow.

EXPERIMENTATION

- To obtain the breakthrough curve and hence length of unused bed for the given adsorption system

UTILITIES REQUIRED

- Electricity Supply : 1 Phase, 220 V AC, 0.5 kW
- Bench Area : 1.2m x 1m.
- Required Chemicals & Laboratory Glassware.
- Colourimeter.
- Required analyzing equipments as per the system to study.



TECHNICAL DETAILS

- Column (3 Nos.) : Material Borosilicate glass of different dia.
- Feed tank : Material Stainless Steel, Capacity 20 litres.
- Receiving tank : Material Stainless Steel, Capacity 20 litres.
- Feed circulation : FHP, Magnetic Pump made of Polypropylene.
- Piping : Stainless Steel and PVC of size ¼”.
- Flow measurement : Rotameter for feed.
- Stop Watch : Electronic.
- Instruction Manual : An ENGLISH instruction manual will be provided along with the Apparatus
- The whole set-up is well designed and arranged in a good quality painted structure.