

**Product Name :**  
Isothermal Semi-Batch Reactor**Product Code :**  
ALABS-A56-018**Description :****Isothermal Semi-Batch Reactor**

An isothermal semi-batch reactor is a semi-closed system with one input stream. It is operated under conditions like Isothermal (Temperature of Reaction Mass remains constant) and perfectly mixed (composition of reaction mixture is uniform throughout).

This set-up is used to study a non-catalytic homogeneous reaction under isothermal condition. The set up consists of a Reactor fitted in a constant temperature water bath. Before starting the reaction the reactor charged with measured quantity of one reactant. From a feed tank another reactant is fed to the reactor. Using a sampling pipette samples can be taken out for analysis after fixed interval. Rotameter is provided to measure the flow of Chemicals. The magnetic drive pump is used for circulation of feed. One stirrer is fitted for mixing the reactants in reactor and other is fitted in water bath to keep the uniform temperature throughout in the bath. The temperature of bath can be maintained from ambient, to 70C with the help of Digital Temperature indicator Cum Controller

**Experiments:**

- To study a second order sponification reaction in a Semi-Batch Reactor
- To determine the Reaction Rate Constant

**Utilities Required:**

- Water Supply & Drain
- Electricity 1.5kw, Single
- Instruments, Laboratory Glassware and Chemicals required for analysis as per the system adopted



## Equipments Exporters

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