

Laboratory scale batch pyrolysis reactor

Description/Parameters

A laboratory scale batch pyrolysis reactor setup is primarily used for the thermal treatment of biomass prior to pilot scale continuous pyrolysis treatment. The apparatus consists of a stainless-steel reactor and an electric furnace. The temperature program of the furnace controller can be adjusted for setting the – target temperature, heating rate, dwell time at final temperature, intermediate steps etc. The apparatus is further equipped with a condenser/cooler and a condensate container. The gas is passed through a series of wash flasks before being collected in Tedlar[®] bags.

Utilization/Services

A laboratory scale batch pyrolysis reactor is used to determine the mass and energy balances of waste biomass pyrolysis. Pyrolysis produces three main products - pyrolysis gas, liquid condensate and solid carbonaceous residue. All pyrolysis products are collected and subjected to further analyses.

- Temperature range 200 1000 °C.
- Material feed from 10 to 200 g.



