



Combustion

Combustion is an exothermic oxidation reaction in which a fuel burns in the presence of oxygen with the evolution of heat and light.

Calorific value

The total quantity of heat of liberated when unit mass of fuel is burnt completely.

Units for calorific value

- i) Calorie / gram.
- ii) Kilocalorie / kg.
- iii) British thermal unit(for solid or liquid fuels)

1. Higher calorific value (HCV) or Gross calorific value (GCV)

The total amount of heat produced when unit mass of the fuel is burnt completely and the products of combustion are cooled to room temperature.

2. Lower calorific value (LCV) or Net calorific value (NCV)

The net heat produced when unit mass of the fuel is burnt completely and the products of combustion are allowed to escape.