

DETERMINATION OF THE ENTHALPY OF COMBUSTION BY A CALORIMETRIC BOMB

Mod. C-AV-21/EV

AC

DESCRIPTION

The calorimetric bomb is used to fully burn substances under conditions of excess oxygen. The combustion heat released is absorbed by the calorimeter in which the bomb is immersed leading to an increase of ΔT temperature. The thermal capacity of the system is first determined by making a considerable amount of heat from the combustion of benzoic acid. Consequently, under the same operating conditions, the enthalpy of combustion of naphthalene is determined.

TRAINING PROGRAM

- First law of thermodynamics
- Hess's law
- Enthalpy of combustion
- Enthalpy of formation
- Thermal capacity

COMPONENTS

- Calorimetric bomb
- Transparent calorimeter
- Heatable magnetic stirrer
- Steel cylindrical container for oxygen
- Reduction valve for oxygen
- Precision scale
- Mortar and pestle
- Tablet mould for calorimeter
- Digital stopwatch
- Glassware and various accessories



REQUIRED (NOT INCLUDED)

- EVLAB DATALOGGER mod. EVS-EXP/EV including SOFTWARE EVLAB WORKSPACE mod. SW-C-AV-21/EV for a total control of interactive experiments
- Temperature sensor mod. EVS-15/EV
- PERSONAL COMPUTER



SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK

