

Joule's Constant Measurement Setup

Nvis 6054 (by electrical method)



Nvis 6054 Joule's Constant Measurement Setup (by electrical method) is useful to determine the mechanical equivalent of heat. It consists of Calorimeter to isolate water thermally from the surrounding and Measurement Unit with LCD to display Voltage, Current and Time. According to Law of Conservation of Energy, electrical energy provided is equal to heat produced if very less heat is lost through the system. Current is passed in a coil to rise the temperature of known mass of water in a calorimeter. By measuring heat produced corresponding to the provided electrical energy, value of Joule's Constant is determined.

Features

- Complete setup for measuring Joule's constant
- Constant current source
- Calorimeter to prevent heat loss
- LCD Display
- Online product tutorial

Scope of Learning

To determine mechanical equivalent of heat (J) joule's constant by electrical method

LCD Display Screen

V:0.06V I:0.02A

Timer.00.00

Technical Specifications

Power Supply

Input : 230V AC ±10%, 50Hz

Out put : 0-10V / 0-1.5A

Calorimeter

Material : Copper Container

Volume : 140 ml

Heater Coil

Material : Nichrome

Resistance : 50

Thermometer

Least count : 1°C

Maximum range : 110°C

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