CS4

FURNACE APPARATUS FOR KLY5-A AND MFK1-FA KAPPABRIDGES

AGICO
ADVANCED GEOSCIENCE INSTRUMENTS COMPANY

Supplement for KLY5-A and MFK1-FA Kappabridges for measurements of high-temperature variations of magnetic susceptibility.

General Description

The **CS4 High Temperature Furnace Apparatus** is optional attachment for **KLY5-A** and **MFK1-FA/A** Kappabridges designed for measurement of the temperature variations of low-field magnetic susceptibility of minerals, rocks and synthetic materials in the temperature range from **ambient temperature to 700˚C**. Measurements can be performed under the protective argon atmosphere to prevent oxidation of measured specimen.

The apparatus consists of a non-magnetic furnace with a special platinum temperature sensor, a temperature control unit, and a cooling water reservoir. The specimen (up to 0.25 cm^3 in volume) is placed in a silica glass vessel, heated by a platinum wire, and the temperature is measured by the temperature sensor.

The quasicontinuous measurement process is fully automated, being controlled by the software **Sufyte.** Data processing software **Cureval** serves for advanced analysis of thermomagnetic curves such as empty furnace measurement substraction, Curie temperature estimation and separation of ferromagnetic and paramagnetic part of susceptibility.

CS4 Furnace Apparatus Comprising

CS4 Temperature Control Unit
Furnace
Water Cooling Reservoir
Temperature Sensor
Argon Gas Flowmeter
Power Supply Unit
Specimen Vessels
Set of Interconnecting Cables
Measuring Software, CUREVAL Software
User's Manual

Main Features

Lowest detectable susceptibility change $1x10^{-7}$ SI.

Measurement at high temperatures up to 700˚ C.

Software controlled heating and cooling modes.

Measurement in the air or argon atmosphere.

500 to 700 pairs of susceptibility and temperature measurements to define a thermomagnetic curve.

Technical specifications

Nominal specimen volume:	0.25 cm^3
Inner diameter of measuring vessel:	6 mm
Temperature range:	room temp up to 700˚C
Accuracy of temperature determination:	± 2 ˚C
Sensitivity to susceptibility changes:	1 x 10^{-7} SI

Power requirements: 100 - 240 V, 50/60 Hz, 700 VA