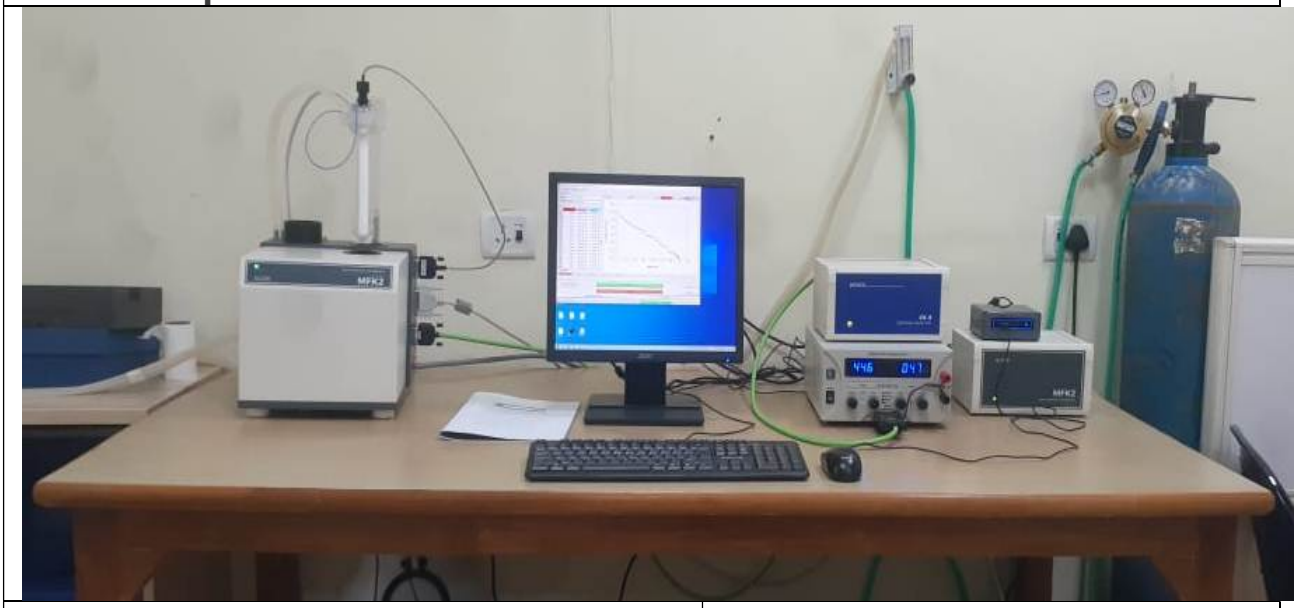
Name of the instrument	MFK2-FA KAPPABRIDGE

Make- Advanced Geoscience Instruments Company (AGICO), Czech Republic



General Description

The MFK2-FA series of Kappabridges is used for measuring bulk magnetic susceptibility and anisotropy of magnetic susceptibility (AMS) in weak variable magnetic fields (field range from 2 A/m to 700 A/m). The instrument is capable of measuring the magnetic susceptibility at three different frequency values of 976 Hz, 3904 Hz and 15616 Hz.

Spinning specimen method uses 3D rotator or classic rotator for easy, rapid and precise AMS measurements. The instrument is attached with furnace (CS4) and cryostat (CS-L) unit to enable measurements of temperature variation of bulk susceptibility from -192°C up to 700°C.

Main Features

- High Sensitivity 2×10^{-8} SI
- Fully automatic zeroing system
- Three operating frequencies
- Field variation of magnetic susceptibility
- Rapid AMS measuring
- Autoranging
- Temperature variation of susceptibility (liquid Nitrogen to 700 °C)
- Sophisticated software for advanced diagnostics
- 3D rotator for AMS measurement

Principle of measurement

In principle the instrument represents a precision fully automatic inductive bridge equipped with automatic zeroing system and automatic compensation of the thermal drift of the bridge unbalance as well as an automatic switching to appropriate measuring range. Special diagnostics was embedded in MFK2 Kappabridges, which monitors important processes during measurement with MFK2 and also with CS4 or CS-L unit. The main advantage of the MFK2-FA models compared to the older Kappabridges is measurement of frequency variations of magnetic susceptibility and anisotropy of magnetic susceptibility. The auto-ranging and autozeroing works over the entire measuring range. Automatic zeroing compensates real and imaginary components, The output signal from pick-up coils is amplified, filtered and digitized, raw data are transferred directly to the computer which controls all the instrument

Specimens to be measured
Cylinder (regularly shaped specimens) Diameter-25.4±1mm Length-22.0±1mm **Cube** 23×23×23 mm
Measurement/analysis **1**. Magnetic Susceptibility (Both Low and High Frequency) 2. Field variation of susceptibility (2 A/m to 700 A/m) 3. Anisotropy of magnetic susceptibility 4.Temperature Dependence of Magnetic Susceptibility (χ-T Curves) - Curie Temperature from liquid nitrogen to 700°C

User Instructions:

1. Each requisition should be addressed to **Director, BSIP** for allotment of analysis date
2. Payment is to be made in advance through bank draft in favour of "**Director, BSIP, Lucknow**". Kindly visit our website for the updated rate-list
3. Data generated will be provided on CD or DVD
4. Sediment/Soil samples should be fully packed in 10 cc plastic bottles

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