

LDA5

AF DEMAGNETIZER

PAM1

ANHYSTERETIC / PULSE MAGNETIZER

AGICO

ADVANCED GEOSCIENCE INSTRUMENTS COMPANY

Computer Controlled Demagnetization / Magnetization Process
Two-axis Tumbling of Specimen
Automatic Positioning for Anisotropy of Remanence
Controlled Direct Field Pulses for Environmental Research

LDA5 AF Demagnetizer

General Description

The **LDA5** Alternating Field Demagnetizer serves for demagnetizing of rock or soil specimens by exposing them to an alternating magnetic field.

Alternating field demagnetization is one of the principal techniques used in paleomagnetic research in order to isolate the characteristic components of the natural remanent magnetization. In rock magnetic research, alternating field demagnetization is used to remove any laboratory-imparted magnetization resulting from rock magnetic experiments.

The demagnetization process is computer-controlled and fully automated. Mu-metal shielding provides an effective protection of the specimen from the Earth's magnetic field. The electrical current for producing demagnetizing field is generated in such a way that it is free of the higher harmonic components that may produce parasitic magnetization.

Main Features

- Alternating field up to 200mT (peak)
- Pure sinusoidal shape of alternating field
- 18 directions set by 2-axis tumbler
- Tumbling specimen demagnetization
- Triple permalloy shielding for local magnetic field elimination
- Four rates of alternating field decrease
- Three courses of alternating field decrease
- User friendly software

Technical specifications

Alternating field amplitude	1 -200 mT (peak)
THD of alternating field	< 0.1%
Accuracy of set field	± 1 %
Power requirements	120 and 230 V, 50/60 Hz, 1600 VA
Dimensions, Mass:	
Specimen Unit	110 x 39 x 46 cm, 95 kg
Electronic Unit	47 x 38 x 17 cm, 30 kg



LABORATORY INSTRUMENTS FOR MEASUREMENT OF MAGNETIC PROPERTIES OF ROCKS

PAM1 Anhysteretic / Pulse Magnetizer

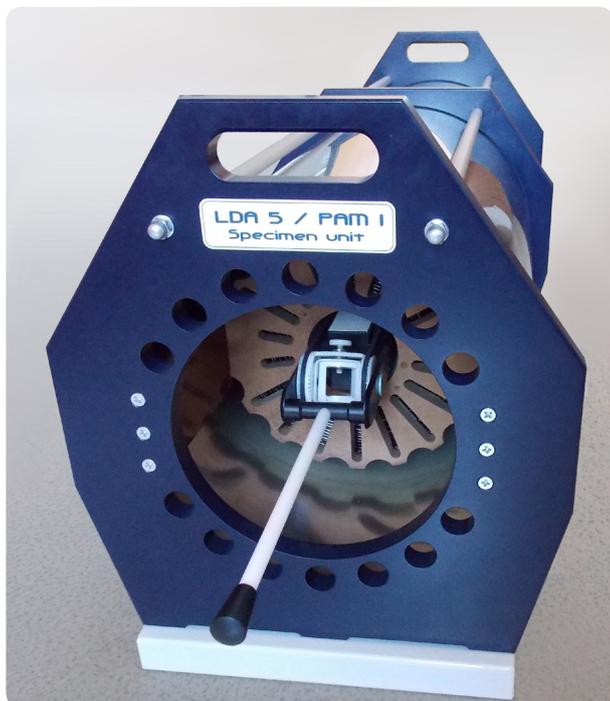
General Description

The **PAM1** Anhysteretic / Pulse Magnetizer (optional extension of the LDA5 AF Demagnetizer) serves for a deliberate anhysteretic or isothermal magnetization of a rock or soil specimen.

Controlled acquisition of anhysteretic or isothermal magnetization is essential for several rock magnetic identification techniques used in paleomagnetism, rock and environmental magnetism.

Variable length of direct field pulses enables to quantify the viscous component of isothermal magnetization which reflects the amount of magnetic particles on the superparamagnetic/stable single-domain boundary.

Automatic specimen positioning facilitates determination of the anisotropy of magnetic remanence which reflects the preferred orientation of magnetic minerals and has become a well-established technique in structural geology as well as in paleomagnetism and environmental research.



Main Features

Computer-controlled magnetization process (optionally coupled with JR-6 software)

Automatic positioning, 18 specimen orientations

Low-field isothermal magnetization with variable time of direct field pulses

Partial anhysteretic magnetization (controlled direct field switch off during alternating field decrease)

Commutated regime of direct field for more efficient acquisition of isothermal magnetization

Technical specifications

DC field	0 - 500 μ T
Pulse DC field	0 - 20 mT
Length of DC field pulses	0.1 - 10 s
Power requirements	120 and 230 V, 50/60 Hz, 1600 VA
Dimensions, Mass	47x38x13 cm, 20 kg

Specimens to be treated

Cylinders (regularly shaped specimens)

Diameter 25.4 \pm 1 mm

Length 22.0 \pm 1 mm

Cubes 23 x 23 x 23 mm

20 x 20 x 20 mm

LDA5 AF Demagnetizer Comprising

Specimen Unit
Electronic Unit
PC notebook
Interconnecting Cables
User's Manual

PAM1 Anhysteretic / Pulse Magnetizer Comprising

PAM1 Electronic Unit
Interconnecting Cables
User's Manual

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