LDA6



DEMAGNETIZER/MAGNETIZER SYSTEM

ADVANCED GEOSCIENCE INSTRUMENTS COMPANY

LDA6 is a complex laboratory magnetic treatment system that integrates **AF Demagnetizer** with **Anhysteretic** and low-field **Impulse Magnetizer**. Its sophisticated design allows very precise setting of AC field amplitude up to **200 mT**, anhysteretic DC field intensity up to **1 mT**, and impulse DC field intensity up to **50 mT**. The sample holder is constructed as a two-axis tumbler, allowing random rotation or sample positioning in eighteen discrete orientations. Although optimized for standard-size paleomagnetic specimens, the tumbler can accommodate approx. 10 cc of rocks, environmental or man-made materials.





Features

- Wide range of precisely set demagnetizing and magnetizing field intensities
- Tumbling specimen, 3-axis or single axis demagnetization
- Three AC field decrease rates 1, 3 or 9 mT/s and three shapes of AC field decrease waveforms
- · AC field plato up to 30 s
- Anhysteretic magnetization in 18 predefined directions
- · Partial anhysteretic magnetization
- Impulse magnetization with impulse length from 0.01 s up to 10 s
- · Triple mu-metal shielding
- Computer controlled instrument that can optionally work in conjunction with AGICO JR6 Spinner Magnetometer

Applications

- Step-wise AF demagnetization as one of the principal paleomagnetic cleaning techniques aimed to isolate the characteristic component(s) of the natural remanent magnetization
- Determination of magnetic proxy parameters characterizing type and grain-size of ferromagnetic fraction in rocks, soils, environmental, and artificial materials
- Controlled acquisition of anhysteretic magnetization as an analogue to NRM for paleointensity determinations
- Assessment of magnetic viscosity using magnetic pulses of variable length
- Acquisition of directional anhystetic or isothermal remanent magnetization for evaluation of magnetic fabric characterizing the preferred orientation of ferromagnetic fraction in rocks and environmental materials

Specifications

Field intensities

Demagnetizing AC field 1 mT - 200 mT Anhysteretic DC field 1 μ T - 1000 μ T Impulse DC field 1 mT - 50 mT

AC/DC Field Properties

 $\begin{array}{ccc} & \text{Accuracy of set field} & \pm 1 \, \% \\ & \text{Field homogeneity better than 98 } \% \\ & \text{Total Harminic Distortion of alternating} \\ & \text{field} & < 0.1\% \end{array}$

Tumbler

Tumbling specimen or 3-axes demagnetization Sets 18 magnetization directions

Specimen Size

Cylinder Diameter 25.4±1 mm Length up to 23.0 mm Cube 20 or 23.0 mm

Dimensions, mass 115x63x45 cm, 95 kg

Power

230, 120 50/60 Hz, 1600 VA

AGICO

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