

Name of Machine	AGICO JR-6 Spinner Magnetometer	
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Make	Advanced Geoscience Instruments Company (AGICO), Czech Republic	Model	JR-6 Dual Speed Spinner Magnetometer
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Specification

- Measurements of remanent magnetization (NRM, ARM, IRM)
- High sensitivity
- Measurement over 11 magnitudes (10^{-6} - 10^4 A/m)
- Two speeds of rotation (high and low)
- Easy operation

Description

This is the most sensitive and accurate instrument for measurement of remanent magnetization of rocks based on classical (non-quantum, non-cryogenic) principles. Its outstanding sensitivity enables even rocks with very weak remanent magnetization to be measured, for example, various sedimentary rocks including limestones and quartzites.

Principle

Rock specimen of defined size and shape rotates at a constant angular speed in the pick-up unit inside a pair of coils. An AC voltage is induced in the coils whose amplitude and phase depend on the magnitude and direction of the magnetic remanence vector of the specimen. The voltage is amplified, filtered and digitized. By Fourier analysis the computer calculates two rectangular components of the projection of remanent magnetization vector into the plane perpendicular to the axis of rotation.

Technical specifications

Sensitivity	2.4×10^{-6} A/m (high speed)
Measuring range	up 12500 A/m
Speed of rotation	87.7 rps and 16.7 rps
Accuracy of absolute calibration	± 3 %

Specimens to be measured

Cylinder (regularly shaped specimens)	
Diameter	25.4 ± 1 mm
Length	22.0 ± 1 mm

MEASUREMENT/ANALYSIS

I. Rock, Mineral and Environmental Magnetism Measurements

1. Natural Remanent Magnetization (NRM)
2. Anhysteretic Remanent Magnetization (ARM)
3. Isothermal Remanent Magnetization (IRM) - Measured in forward field steps of 20 mT, 40 mT, 60 mT, 100 mT, 300 mT, 500 mT, 700 mT, 1000 mT and in backfields of -20 mT, -30 mT, -40 mT, -60 mT, -100 mT, -300 mT respectively

II. Palaeomagnetic Measurements

1. Alternating Field Demagnetization - Performed in progressive AF steps of 2.5, 5, 7.5, 10, 12.5, 15, 20, 30, 40, 60, 80 100 mT respectively
2. Thermal Demagnetization - Performed in progressive Thermal steps of 100, 150, 200, 250, 300, 400, 450, 500, 525, 580, 620, 700 °C respectively

Contact Person

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Charges

S. No.	Measurements and Analysis	Instruments Used	Rates		
			Students @25% Discount	Govt. Organizations (University/ Institute)	Private Sector/Industry
1	Natural Remanent Magnetization (NRM)	AGICO JR-6 Spinner Magnetometer	Rs. 38/- each specimen	Rs. 50/- each specimen	Rs. 100/- each specimen
2	Anhyseretic Remanent Magnetization (ARM)	AGICO JR-6 Spinner Magnetometer, ASC AF Demagnetizer	Rs. 38/- each specimen	Rs. 50/- each specimen	Rs. 100/- each specimen
3	Isothermal Remanent Magnetization (IRM)	AGICO JR-6 Spinner Magnetometer, ASC Impulse Magnetizer	Rs.375/- each specimen (includes six IRM steps)	Rs. 500/- each specimen (includes six IRM steps)	Rs. 1000/- each specimen (includes six IRM steps)
4	Alternating Field Demagnetization (AF Demag.)	AGICO JR-6 Spinner Magnetometer, ASC AF Demagnetizer	Rs1500/-each specimen (includes all AF steps (max eight))	Rs. 2000/-each specimen (includes all AF steps (max eight))	Rs. 4000/- each specimen (includes all AF steps (max eight)).
5	Thermal Demagnetization (Thermal Demag.)	AGICO JR-6 Spinner Magnetometer, ASC Thermal Demagnetizer	Rs1500/-each specimen (includes all Thermal steps (max eight))	Rs. 2000/-each specimen (includes all Thermal steps (max eight))	Rs. 4000/- each specimen (includes all Thermal steps (max eight))
6	Sample Preparation	10cc Sample Bottles, Rock Saw Cutting Unit	Rs. 38/- each specimen	Rs. 50/- for each specimen	Rs. 100/- for each specimen

To be filled in by the user while submitting the form

Job No as ASE CF

Date of submission:

(Sample Information Form)

REQUISITION FORM

BIRBAL SAHNI INSTITUTE OF PALAEOSCIECES, LUCKNOW

53, University Road, Lucknow, Ph. 0522-2740008, 2740399

(ASE Central Facility)

Website: www.bsip.res.in, E mail: gcms.bsip@gmail.com

Geochemistry Lab

(Information to be filled in by the user)

Name: _____

Address: _____

Email and Mobile No.: _____

Category (In-house/sponsored/Govt. organization/private): _____

Number of samples: _____

Sl. No.	Sample ID	Type/Nature of Sample	Quantity	Year of collection	Lat./Long.	Remarks, if any
1						
2						
3						
4						
5						

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SAMPLE REQUISITION FORM

BIRBAL SAHNI INSTITUTE OF PALAEOSCIECES, LUCKNOW

53, University Road, Lucknow, Ph. 0522-2740008, 2740399

(ASE Central Facility)

Website: www.bsip.res.in, E mail: gcms.bsip@gmail.com

Geochemistry Lab

(Information to be filled in by the user)

Name: _____

Address: _____

Email and Mobile No.: _____

Category (Inhouse/inhouse sponsored/Govt. organization/private): _____

Number of samples: _____

Nature of samples (with details): _____

Scientific Objective of this study: _____

Additional information, if any: _____

Location (Lat & Long): _____

Exposed Section/Trench/Core/Others: _____

(For office use only)

Lab Reference No.:

R.P.C.C./ Registrar : Kindly raise the bill for the above

Total Charges:

Taxes:

Grand Total: