AGICO JR-6 Spinner Magnetometer

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

Model: JR-6 Dual Speed Spinner Magnetometer

Specifications:

- 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	Upto 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
Cubes	23×23×23mm

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

Contact Us:

Dr. Binita Phartiyal: binita_phartiyal@bsip.res.in; 9411856391(Lab Head)

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Analysis cost: See analytical cost list as attached below

बीरबल साहनी पुराविज्ञान संस्थान, लखनऊ
BIRBAL SAHNI INSTITUTE OF PALAEOSCIECES, LUCKNOW

बी.सा.पु.सं / वै.ग./परामर्शता/2023-24/ L – 1200

दिनांक

No.BSIP/SA/Consultancy/2023-24

Dated: 19.10.2023

अधिसूचना/NOTIFICATION

विषय : पैलियोमैग प्रयोगशाला हेतु वैश्लेषिक प्रभार (Analytical Charges for (Palaeomag Lab)

अध्यक्ष, शासी मंडल, बी.सा.पु.स. के अनुमोदन से उपर्युक्त प्रयोगशाला में तत्काल प्रभाव से तात्विक प्रभार निम्नवत हैं:-

Sl.No.	Analysis	Instrument(s)	Charges/specimen (Revised since 16/08/2023)			
			Students		Govt. Body (Univ./Institute)	Private Sector/Industry
1.	Magnetic Susceptibility (MS) (xIf, xhf, xfd%)	Bartington MS2B Sensor	Rs.50/-		Rs.65/-	Rs.130/-
2.	Magnetic Susceptibility (xIf, xhf, xfd%)	MFK2-FA-Kappabridge	Rs.75/-		Rs.100/-	Rs.200/-
3.	Field variation of MS (2A/m to 700A/M)	MFK2-FA-Kappabridge	Rs.175/-		Rs.250/-	Rs.500/-
4.	Temperature variation of MS(40-700 °C and cooling)	Bartington MS2WFP Sensor	Rs.500/-		Rs.750/-	Rs.1500/-
5.	Anisotropy of magnetic susceptibility (AMS)-Manual Mode-15 Direction	MFK2-FA-Kappabridge	Rs.250/-		Rs.350/-	Rs.700/-
6.	Anisotropy of magnetic susceptibility (AMS)-Auto mode with 3D rotator-64 Direction	MFK2-FA-Kappabridge	Rs.400/-		Rs.600/-	Rs.1200/-
7.	Magnetic Susceptibility whole core scanning (without splitting)	MS-2C sensor (Bartington)110 mm dia	Rs.1000/- Every 1 m of core		Rs.1500/- Every 1m of core	Rs.3000/- Every 1m of core
8.	Magnetic Susceptibility split core scanning	MS-2E sensor (Bartington)25 mm dia	Rs.1500 /- Every 1 meter core		Rs.2500/- Every 1meter core	Rs.5000/- Every 1meter core
9.	Natural Remanent Magnetization (NRM)	AGICO JR-6 Spinner Magnetometer	Rs.50/-		Rs.75/-	Rs.150/-
10.	Anhysteretic Remanent Magnetization (ARM)	AGICO JR-6, ASC AF Demagnetiser	Rs.75/-		Rs.100/-	Rs.200/-
11.	Isothermal Remanent Magnetization (IRM)	AGICO JR-6 & ASC Impulse Magnetiser	3 step*	Rs.225/-	Rs.300/-	Rs.600/-
			8 step*	Rs.525/-	Rs.700/-	Rs.1400/-
			13 step*	Rs.975/-	Rs.1300/-	Rs.2600/-
12.	Alternating Field Demagnetisation (AFD)	AGICO JR-6, ASC AF Demagnetiser	Rs.1800/- (All AF Steps) (0 to 200 mT)	Rs.2500/- (All AF Steps) (0 to 200 mT)	Rs.5000/-(All AF Steps) (0 to 200 mT)	

13.	Thermal Demagnetisation (TD)	AGICO JR-6, ASC AF Demagnetiser	Rs.2000/- (All TD Steps) 40^0c to 800^0c	Rs.3000/- (All TD Steps) 40^0c to 800^0c	Rs.5000/- (All TD Steps) 40^0c to 800^0c
14.	Rock drill for palaeomag sample preparation	Laboratory Lapidary core drill LB-01 (ASC scientific)	Rs.500/- Each block	Rs.1000/- Each block	Rs.2000/-Each block
15.	Rock cutting for palaeomag specimen	Dual Blade Rock Saw S1-220 (ASC Scientific)	Rs.100/- for each core	Rs.200/- for each core	Rs.400/- for each core
16.	Magnetic vial sample preparation	10 cc sample bottles, cling films, agate, tissuepaper, isopropyl alcohol etc	Rs.40/-	Rs.50/-	Rs.100/-

* steps IRM involves 1000 mT

** 8 steps IRM involves 20 mT, 1000mT, -20mT, -30mT, -60mT, -100 mT, -300 mT

***13 steps IRM involves (20, 100, 300, 500, 800, 1000) mT, -20 mT, -30 mT, -40 mT, -60 mT, -100 mT, -300 mT

19/10/2023

(संदीप कुमार शिवहरे /Sandeep Kumar Shivhare)
रजिस्ट्रार /Registrar

प्रतिलिपि/Copy to:

1. संबंधित व्यक्ति (यों)/Person (s) concerned
2. निजी सचिव/रजिस्ट्रार कार्यालय/अनुसंधान योजना एवं समन्वय प्रकोष्ठ/PS/Registrar's Office/ RDCC
3. परियोजना समन्वयक/Project Coordinator
4. लेखाधिकारी/अनु.अधि.(स्थापना)/(भंडार एवं क्रय)/अनु.अधि. (निर्माण एवं भवन)/हिंदी अनुवादक/संयोजक ज्ञान संसाधन केन्द्र/ Accounts Officer/S.O.(E)/S.O. (S&P)/S.O. (W&B)/ Hindi Translator/ Convener, KRC
5. कार्यालय प्रति/Office Copy
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