



DEPARTMENT OF CHEMISTRY  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS



Sample requirements for VSM measurement.

Measurement	Room temperature measurement	Low temperature Measurement	High temperature measurement
M-H	Temperature Range: 300K  Applied Field Range +150000 Oe to -15000	Temperature Range: 20 K to 300K  Applied Field Range: +15000 Oe to -15000 Oe	Temperature Range: 300 K to 1000K  Applied Field Range: +15000 Oe to -15000 Oe
M-T	Not applicable	Temperature Range (ZFC/FC): 20K to 300K Applied Field Range: 0 to 5000 Oe	Temperature Range (Only FC): 300K to 1000K Applied Field Range: 0 to 5000 Oe

- Only Powder, Metal, Pellet, Thin film samples can be done. No liquid samples can be done.
- Either Low temperature (20K to 300K) or High temperature (300K to 1000K) can be done within the given range. No measurement can be done in a single stretch starting from 20K to 1000K.
- For Powder sample minimum sample required is 100 mg.
- For thin film samples the dimension should be 10 mm x 4 mm (length x breadth).
- For High temperature measurements only Pelletized form of samples can be done.
- The users should fill up the form (given below) and submit it with the sample
- Each sample has to be listed separately.
- External samples will be analyzed in que at a fixed rate.

### Payments

- External users, please bring a draft in the name of **Registrar, IIT Madras** for the appropriate amount.
- Please note that if the account is not settled immediately it will not be possible to do further analysis.

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The **VSM** is currently located in **ACB-124** and you are welcome to visit the room after prior appointment

## Fees

### VSM sample charges as follows

S.No	Category	Rate per sample	
		Room Temperature (RT) (Rs.)	Low Temperature (LT) (Rs.)
1.	Students from other departments of IIT Madras	500/-	1200/- M-T or M-H at any fixed temp@1200 per sample + 400 for every M-H measurement at various fixed temperature
2.	Students from other educational and research institutions	1000/-	2500/- M-T or M-H at any fixed temp@ 2500 per sample 1000 for every M-H measurement at various fixed temperature
3.	Users from industry	2500/-	10,000/- M-T or M-H at any fixed temp@5000 per sample 2500 for every M-H measurement at various fixed temperature

\* High Temperature (HT) measurements will be performed when sufficient number of samples are available.

## Contact

**In-Charge VSM**  
Department of Chemistry, IIT Madras  
Chennai 600 036.

Ph: 044-2257 5243

Email: [cyoffice@iitm.ac.in](mailto:cyoffice@iitm.ac.in)

**DEPARTMENT OF CHEMISTRY**  
**Indian Institute of Technology, Madras**  
**Chennai-600 036**

**Requisition for VSM measurements at Department of Chemistry (Maximum 2 Samples)**

**(Internal users)**

**Date:**

Name of the Applicant
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Name of the Guide
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E-Mail:

Phone No:

S. N	Sample code	Nature of the sample Powder/ Pellet/Metal	Melting point	Expected property Diamagnetic/ Paramagnetic/ Ferromagnetic	Measurement Required M-H@ Room Temperature M-H @LT/High Temperature M-T @ LT/HT (Mention Field)

Purpose for which the measurement is requested:

This is to certify that the user is a bonafide student under my supervision.

Signature of the guide

signature of the Applicant

Signature of the co-ordinator

Received on:

Analysed on:

# DEPARTMENT OF CHEMISTRY

Indian Institute of Technology,

Madras Chennai-600 036

Requisition for VSM measurements at Department of Chemistry (maximum 2 samples) (External users) Date:

<b>Name of the Applicant</b>
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<b>Name of the Guide</b>
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<b>Address for Communication</b>
<b>Phone No:</b>

<b>Billing Address</b>
<b>Email:</b>

DD.No: ....., Date: ....., Amount: ... Bank: .....

S. N	Sample code	Nature of the sample Powder/ Pellet/Metal	Melting point	Expected property Diamagnetic/ Paramagnetic/ Ferromagnetic	Measurement Required M-H@ Room Temperature M-H @LT/High Temperature M-T @ LT/HT (Mention Field)

Purpose for which the measurement is requested:

This is to certify that the user is a bonafide student under my supervision.

I hereby agree to acknowledge the data and results obtained from this machine in publications and thesis.

Signature of the Research Supervisor with seal  
Applicant

Signature of the

NB: VSM measurement in person on an appointment basis is feasible. Charges for the measurement should be send through an advance demand draft in favour of “ The Registrar, I.I.T Madras” along with the samples, to the Head, Department of Chemistry, IIT Madras,Chennai-600036.