



Central Instrument Facility, IIT (BHU), Varanasi-221 005
External Requisition Form NMTS



User Information:

Date:

Requisition Number	
Name of the user	
Department	
UG/PG/IDD/PhD. /PDF/Project/ Consultancy/ Industry	
Contact number	
Email address	
Name of supervisor	
Employee ID of supervisor	

Sample Information:

No. of Sample:

Sample Type (Metallic/Ceramic/Polymer/Bio/Thin Film):

The sample size should be within 10 × 10 × 5mm (L × W × H) (Yes/No)

Measurement to be performed

1. Indentation ☐
2. Property mapping ☐
3. Nano wear ☐
4. DMA ☐

A. For Nanoindentation:		B. For Property Mapping
Load (<10 mN)		
Loading/Unloading rate(μN/s)		
Location of indent in case of multiphase materials		
Roughness of all samples (<200 nm) mandatory		
SPM imaging required (Yes/No)		
Total number of indents		
C. For Wear test: (Low load <10mN)		
Load (100 nN – 1 mN)		
Wear Track Size (< 40 μm × 40 μm)		
Sample roughness (<200 nm) mandatory		
SPM imaging required (Yes/No)		
Total number of wear test		

D. For Nano Dynamic Mechanical Analysis:	
For Dynamic Load Test: (Fixed frequency)	
i) Frequency of test (< 300 Hz)	
ii) Range of load (< 5 mN)	
For Dynamic Frequency Test (Frequency sweep):	
i) Applied load (< 5 mN)	
ii) Range of frequency (< 300 Hz)	
Specify how many tests per sample for DMA	

Note: The sample must remain stable and not vaporize at the specified experimental temperature.
➤ The sample should not vaporize at the given experimental temperature.
➤ Nano-indentation results are highly dependent on surface preparation. For accurate measurements, the sample surface should be flat and polished to a mirror-like finish. It is highly advisable to perform final polishing using electro-polishing for conductive samples, and colloidal silica polishing for non-conductive ones.
➤ The sample should not be mounted in epoxy before being submitted for nano-indentation testing.
➤ The Sample should be mounted on a steel disc with the help of Feviquik for strong adhesion.

Pl. Specify if the sample is *Toxic/ Hazardous/ Explosive/ etc.*:

Do you want to present during the characterization or not?

Sample required to be preserved or not: Yes/ No (If NO mode of disposal):

Signature & Remark of Operator:

Date & Time.....

Payment: Payment mode NEFT/RTGS/Net Banking etc. (GST 18% extra applicable)	
Details of the Account Holder	The Registrar
Bank Name & Branch	State Bank of India (IT-BHU Branch)
IFSC Code:	SBIN0011445
Account No.:	32778803937
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Pl. Deduct Rs.	
CIF: Professor In charge Signature with seal of the Faculty Member/PI	

<u>FOR USE IN FINANCE OFFICE</u> <u>Expenditure may be debit/credit to:</u> Minor Head: IDF Minor Sub Head: Income from CIF	<u>PASSED FOR PAYMENT/ ADJUSTMENT</u> For Rupees Asst. S.O. A.R. D.R.
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