

**CENTRAL INSTRUMENT FACILITY (CIF)**  
**National Institute of Science Education and Research**  
**Bhubaneswar - 751 005**

**FT-NMR-400MHz**  
**(Max. 3 samples per form)**

**User Information**

Date:

Name :  
 Designation :  
 Official Address :  
 User category : **Academic researcher/Govt. Labs/CSIR Labs/Industry/other (Tick one)**  
 Bill to be addressed to :  
 Phone Number :  
 E-mail Address :

**Certification and undertaking by Financially Responsible person: (HOD/Principal/Advisor/Managing Director): I agree to pay the charges for this analysis. I certify that the user is a student/researcher/employee of our organization. I understand that in all publications where these measurement results will be used, CIF and DST shall be duly acknowledged\***

Signature with date & Seal

**Details of samples submitted<sup>§</sup> (Attach separate sheet if necessary)**

Sl. No	Sample Code	Measurements needed: 1D – <sup>1</sup> H/ <sup>13</sup> C/DEPT- 90 & 135) other nuclei <sup>§</sup> ; 2D-COSY/HSQC/NOESY/	Solvent to be used (Indicate whether the sample is already dissolved in appropriate deuterated Solvent)**			Any other special instructions (toxicity, light sensitivity, region of interest in PPM, etc)  (Attach separate sheets if required)	Raw data required (Y/N)
			Solvent	NMR Tube Supplied Y/N	Solvent already added Y/N		

Details of payment (DD No. and date)<sup>®</sup>

**IF SOFT COPY OF RAW NMR DATA IS NEEDED, KINDLY SEND A REQUEST MAIL TO [nmr@niser.ac.in](mailto:nmr@niser.ac.in)**  
 Processed as well as raw data will preferably be sent through e-mail as attachment. Due to security concerns we are not in a position to deliver data using any other media (CD/Floppy etc.) unless personally collected from CIF. Printed copy of the processed data will be sent by post only if specifically requested.

<sup>®</sup>Rates are provided at the end of the form (3<sup>rd</sup> page). All charges should be paid before spectra/raw data are delivered. Payments should be made in form of Demand Drafts (DD) drawn in favor of Finance Officer, NISER, BHUBANESWAR to be sent to Dr. Arindam Ghosh, CIF-NMR Facility, School of Chemical Sciences, National Institute of Science Education and Research, IOP Campus, Sachivalaya Marg, Bhubaneswar, Orissa –751005. **Payments in any other mode are not accepted.**

<sup>\*</sup>As per the guide-lines of the Department of Science and Technology (DST), in all publications of research work, which utilize analytical services of the CIF, DST and CIF should be duly acknowledged. Kindly send us the publication references (Journal name, volume and page number and author names) to us for our own record.

<sup>\*\*</sup>Please check the solubility before submission of samples so that wastage of expensive solvents can be avoided. The following deuterated solvents are available in CIF : DMSO-d<sub>6</sub>, Methanol-d<sub>4</sub>, Acetone-d<sub>6</sub>, CDCl<sub>3</sub> and D<sub>2</sub>O. Please provide deuterated solvent (700µL/sample) along with sample for any other solvent that you may want to use.

<sup>§</sup>List of other nuclei : <sup>13</sup>C, <sup>19</sup>F, <sup>31</sup>P (User must provide reference compound of these nuclei)

**For further clarification please feel free to contact Dr. Arindam Ghosh ([arinh@niser.ac.in](mailto:arinh@niser.ac.in)) ☎ 0674-230 4092**

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**FT-NMR-400MHz**

**Details of Payment**

Name :  
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Demand Draft No. & Date :  
Amount :  
Issuing bank & branch :

**Signature with date & Seal**

(To be filled up by the user and submitted to the NMR center along with the draft)

**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH**  
**CENTRAL INSTRUMENT FACILITY**  
**400MHz Liquid state FT NMR**

EXPERIMENTS	Charges <sup>§</sup> (Rs)
<sup>1</sup> H/ <sup>19</sup> F/ <sup>31</sup> P 1D NMR	200 per sample
1D – <sup>13</sup> C	1000 per sample
2D Experiments	1000 per hour

<sup>§</sup>Deuterated Solvents other than CDCl<sub>3</sub>, if not provided along with sample, are charged as **Rs. 250/- per sample**.

(For comparison, private industries charge Rs. 1000/sample for <sup>1</sup>H 1D NMR, Rs. 2500/hour for 1D other nuclei and Rs. 2000/hour for 2D experiments. National labs charge Rs. 400, Rs. 1500 and Rs. 1200, respectively, for the same.)

**FT-NMR- Bruker Avance- 400 – Specifications and requirements**

- ❖ 400 MHz FT NMR with, 5 mm multi-nuclear observe probe head, low and high temperature facility.
- ❖ **2 - 4 mg** for <sup>1</sup>H NMR
- ❖ **30-40 mg** for <sup>13</sup>C NMR and Multinuclear Experiment
- ❖ **For <sup>13</sup>C NMR 1Hr is the minimum requirement.**
- ❖ Required amount of sample must be soluble in 0.5-0.6 ml of deuterated solvent.

**Important Points:**

- ❖ **Analysis time depends on internal work load and availability of free machine time. We therefore are unable to accept any unstable or rapidly degrading sample.**
- ❖ **Recovery of samples is not our responsibility.**
- ❖ The analytical data/spectra are provided only for research/development purposes. These cannot be used as certificates in legal disputes.
- ❖ Samples and payment should be sent preferably in the same cover. Separate samples should be sent for different analysis. **Samples are not analyzed till payment is received.**
- ❖ Maximum 5 samples per lot for any type of analysis are accepted at a time.
- ❖ Please send the samples in quantity as mentioned in the respective forms.
- ❖ Radio-active and explosive compounds are not accepted for analysis.
- ❖ All concerned persons, research fellows and students are advised to send their application and samples through their supervisors or Head of Department.
- ❖ **Interpretation of spectra is not undertaken.**

**Please acknowledge the service of Central Instrument Facility (CIF), NISER  
in all publications where our analysis is used.**