

# SOPHISTICATED ANALYTICAL INSTRUMENT FACILITY

**Central Drug Research Institute, Lucknow**



**Supported by**  
*Department of Science & Technology (DST)*  
*Govt. of India*

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2629504; **Gram:** CENDRUG; **E-mail:** [rsiclko@yahoo.com](mailto:rsiclko@yahoo.com), [saif\\_lucknow@yahoo.com](mailto:saif_lucknow@yahoo.com)

**Note :**

1. As per Govt. rules **Service Tax (12.36%)** will be charged on the analysis charges.
2. The analytical data/spectra are provided only for research/development purposes. These can not be used as certificates in legal disputes.
3. Service charges are payable in advance by crossed bank draft in favour of the **Director, Central Drug Research Institute, Lucknow-226001.**
4. *Samples and payment should be sent preferably in the same cover. Separate samples should be sent for different analysis. Samples are not analysed till payment is received.*
5. Maximum 5 samples for Mass, 5 samples for  $^{13}\text{C}$ ,  $^{19}\text{F}$ ,  $^{31}\text{P}$  NMR and 10 samples for other types of analysis are accepted at a time.
6. Please send the samples in quantity as mentioned in the brochure. Samples are not recovered unless a special request is made.
7. In all correspondence related to analysis our reference number must be mentioned.
8. Radio-active material should be clearly mentioned and handed over personally.
9. Unstable and explosive compounds are not accepted for analysis.
10. Services are rendered to only those users who regularly give us feedback about the end-use of the results, e.g., thesis, patent, process, publication etc.
11. Research fellows and students are advised to send their application and samples through their Supervisor or Head of Department. The request should be on University / College / Institute letter head.
12. Interpretation of spectra is not undertaken normally. In special cases this service can be provided on payment of extra charges.

**All Communications should be addressed to**

*Head  
Sophisticated Analytical Instrument Facility  
Central Drug Research Institute  
Post Box No. 173  
Lucknow 226 001, UP (India)*

**Service Charges \***

S. No.	Facility	Requirements on test sample	Charges in Rs./hr./ sample/ spectrum Service Tax (12.36%) will be extra
1.	<p><b>Mass Spectrometers</b> Jeol SX-102 (FAB)</p> <p>Micromass Quattro II (APCI, ESI, LCMS, MS/MS)</p> <p>Shimadzu QP-2000 (GC/MS)</p> <p>Micromass TofSpec 2E</p> <p>MALDI TOF MS</p> <p>JEOL Accutof - DARTMS</p>	<p><b>1 - 2 mg</b></p> <p>Nature of the sample, melting point, solubility, elements present, expected m.wt &amp; structure, GC conditions and GC trace for GC/MS, LC conditions &amp; LC trace for LCMS. ESI MS is possible only in methanol, acetonitrile or water.</p>	<p><b>1500/-</b></p> <p>per hr. or part thereof with a minimum of Rs. 1500/- per sample for additional facilities such as negative ion, FAB, APCI, ESI, LC/MS &amp; MS/MS, MALDI TOF MS, DARTMS</p> <p><b>1000/-</b> per hr or part thereof for GCMS.</p>
2.	<p><b>NMR Spectrometers</b> Bruker DRX-300 (300 MHz FT NMR with low and high temperature facility -90°C to +80 °C)</p> <p><b>Bruker Avance 400</b> (400 MHz FT NMR with, 5 mm multi-nuclear inverse probe head, low and high temperature facility and HRMAS accessory)</p>	<p><b>2-4 mg</b> for <sup>1</sup>H NMR &amp; <b>30-40 mg</b> for <sup>13</sup>C NMR experiment</p> <p>Nature of compound, e.g., carcinogenic, radio active, solubility, lachrymatory, explosive, hygroscopic etc., structural formula (contemplated/known). Required amount of sample must be soluble in 0.5-0.6 ml of deuterated solvent.</p> <p><b>2-4 mg</b> for <sup>1</sup>HNMR and 30-40 mg for inverse 2D experiments (X-H). Rest same as above. <sup>13</sup>C, <sup>31</sup>P etc spectra can also be recorded but with lesser sensitivity.</p> <p>For HRMAS measurements 100-500 µg sample must be soluble in 12-50 µl of solvent for <sup>1</sup>HNMR, 2 mg soluble in 50 µl of solvent for <sup>13</sup>C or inverse 2D experiments (<sup>1</sup>H-<sup>13</sup>C). Gel NMR measurement as well as resin bound molecules NMR measurement can be carried out</p>	<p><b>1000/-</b> for each half hr. or less</p> <p><b>100/-</b> solvent charges extra for deuterated solvents other than CDCl<sub>3</sub> and D<sub>2</sub>O.</p>

3.	<b>FT IR Spectrophotometers</b> Shimadzu 8201 PC (4000-400 cm <sup>-1</sup> )  Perkin Elmer Spectrum RX1 (4000-450 cm <sup>-1</sup> )	<b>5-10 mg</b> KBr/Nujol/CsI/CHCl <sub>3</sub> , nature (hygroscopic, explosive etc.)  -do-	<b>500/-</b> per spectrum per samples
4.	<b>Gas Liquid Chromatograph</b> Perkin Elmer Autosystem XL	<b>2-5 mg</b> Nature of compound, solubility, melting point/ boiling point, column (if known)	<b>500/-</b> per hr. per sample
5.	<b>Elemental Analyzers</b> Elementar Vario EL III Carlo Erba 1108	<b>10 mg</b> Other elements present, approximate % of nitrogen	<b>400/-</b> per element per sample (CHNS & O)
6.	<b>Polarimeter</b> Rudolf Autopol III	<b>20 mg</b> Sample should be completely soluble in the suggested solvent & free from foreign particles	<b>400/-</b> per sample
7.	<b>Electron Microscopes</b> TEM FEI-Philips Tecnai 12  SEM FEI-Philips XL-30	Users should get confirmation before sending samples	<b>1500/-</b> per sample/per hr. <b>2000/-</b> for TEM sample preparation including sectioning.  <b>1500/-</b> per sample. <b>1500/-**</b> for SEM sample preparation

\* **Charges given are for Private Industries**

**National Laboratories and Private & Government Small Scale Industries will pay 3/5<sup>th</sup> of the charges**

**Educational Institutions will pay 1/5<sup>th</sup> of the charges.**

\*\* **Fixed charge- same for all.**