

# COMSATS University Islamabad, Abbottabad Campus, Pakistan

## Bruker Avance III HD 400 MHz NMR Facility for Public Sector Institutions/Organizations Through PCSIR/HEC

Sr. No.		Types of Analysis	Testing Rates in Rupees
1		Proton NMR Spectra	
	a.	In CDCl <sub>3</sub>	3,000.00
	b.	In any other deuterated solvent	6,000.00
2		Carbon 13 NMR Spectra	
		Broad Band Decoupled Spectra	
	a.	In CDCl <sub>3</sub>	6,000.00
	b.	In any other deuterated solvent	8,000.00
		DEPT 90 and 135 Spectra (Each will be charged as a separate experiment)	
	a.	In CDCl <sub>3</sub>	6,000.00
	b.	In any other deuterated solvent	8,000.00
3		Off Resonance Spectrum	
	a.	In CDCl <sub>3</sub>	7,000.00
	b.	In any other deuterated solvent	9,000.00
4		Inverse NMR measurements (HMBC, HMQC, HSQC etc.) (Each will be charged as a separate experiment)	
	a.	In CDCl <sub>3</sub>	7,000.00
	b.	In any other deuterated solvent	14,000.00
5		Homonuclear 2D COSY, NOESY, TOCSY, DOSY, ROESY (Each will be charged as a separate experiment)	
	a.	In CDCl <sub>3</sub>	3,000.00
	b.	In any other deuterated solvent	6,000.00
6		2D INADEQUATE	
	a.	In CDCl <sub>3</sub>	6,000.00
	b.	In any other deuterated solvent	12,000.00
7		1-D Selective COSY, NOESY, TOCSY (Each will be charged as a separate experiment)	
	a.	In CDCl <sub>3</sub>	3,000.00
	b.	In any other deuterated solvent	6,000.00

### Note:

- The above rates are applicable for public sector institutions only.
- For good results, please provide 10-20 mg of the sample which should be free of dust or fibrous particles.
- Samples must be submitted (as ready) for direct analysis as a single pure ingredient with their solubility in any deuterated solvent. The solubility must be prechecked and the solvent in which the spectrum is to be recorded clearly specified.
- If a mixture of solvents is specified for analysis, then the expenses will be charged at the rate of the solvent which is higher in cost, e.g., expense of <sup>1</sup>H NMR analysis in CDCl<sub>3</sub> is Rs. 3,000/- while in CD<sub>3</sub>OD is Rs. 6,000/-; in the mixture of CDCl<sub>3</sub>-CD<sub>3</sub>OD the rate will be Rs. 6,000/- irrespective of the quantity of each solvent used.
- Analysis will be initiated when the testing charges are received in the NMR account.
- The testing charges may be deposited through online transaction, cross cheque/demand draft in the name of COMSATS Abbottabad.
- The spectra may be provided either in the printed form or in the form of FID. If someone gets spectra in the printed form, he/she will not be provided the FIDs and vice versa.

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## Package NMR or Simultaneous NMR Experiments Facility for Public Sector Institutions/Organizations Through PCSIR/HEC

If an individual intends to carry out the following experiments simultaneously for the same sample, then a special discount will be given on these experiments. The original prices of each experiment in different solvents as well as discounts are mentioned as follows:

Sr. No.	Package NMR	Rates of Separate Experiments in Rupees	
-	Types of Analysis	CDCl <sub>3</sub>	Any other solvent
1	<sup>1</sup> H	3,000	6,000
2	<sup>13</sup> C	6,000	8,000
3	DEPT 90	6,000	8,000
4	DEPT 135	6,000	8,000
5	HSQC	7,000	14,000
6	HMBC	7,000	14,000
7	<sup>1</sup> H- <sup>1</sup> H COSY	3,000	6,000
8	ROESY	3,000	6,000
<b>Total (Rs.)</b>		<b>41,000</b>	<b>70,000</b>
Discount Offered on Total Charges		12%	44%
<b>Final Charges after discount (Rs.)</b>		<b><u>36,000</u></b>	<b><u>39,000</u></b>

Sr. No.	03 Simultaneous Experiments	Rates of Separate Experiments in Rupees	
	Types of Analysis	CDCl <sub>3</sub>	Any other solvent
1	<sup>1</sup> H	3,000	6,000
2	<sup>13</sup> C (BB)	6,000	8,000
3	One DEPT Experiment	6,000	8,000
Total Price (Rs.)		15,000	22,000
<b>Final Charges after discount (Rs.)</b>		<b><u>13,000</u></b>	<b><u>16,000</u></b>

Sr. No.	02 Simultaneous Experiments	Rates of Separate Experiments in Rupees	
	Types of Analysis	CDCl <sub>3</sub>	Any other solvent
1	<sup>1</sup> H	3,000	6,000
2	<sup>13</sup> C (BB)	6,000	8,000
Total (Rs.)		9,000	14,000
<b>Final Charges after discount (Rs.)</b>		<b><u>9,000</u></b>	<b><u>12,000</u></b>

### Note:

We have the following deuterated solvents in the category of in "ANY OTHER DEUTERATED SOLVENT": D<sub>2</sub>O, CD<sub>3</sub>OD, DMSO-d<sub>6</sub>, Acetone-d<sub>6</sub>, Benzene-d<sub>6</sub>