

## CSIR-National Chemical Laboratory

### Analytical/Testing Charges

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#### Notes:

1. Rates quoted are without tax. Taxes extra as applicable (Goods and Services Tax or GST- 18% as on 1st July 2017)
2. Rates quoted are for private industries; 25% discount for Govt. R&D labs/other CSIR labs; 50% discount for academic institutes/research scholars and NGOs/trusts working on projects related to societal issues
3. Discount is not applicable to sample preparation charges mentioned for certain analyses
4. Payment to be made by bank transfer only.
5. For large number of samples for the same analysis from the same user, discount packages are available. Please contact for further details.
6. Before making payment and/or sending samples, kindly request for a Tax Invoice. Payment should be made against the Tax Invoice.
7. Details of samples and expected analysis to be filled in the template (Download the word document file) and enclose along with samples and payment.
8. For details, please contact: [analytical@ncl.res.in](mailto:analytical@ncl.res.in); [sj.kadam@ncl.res.in](mailto:sj.kadam@ncl.res.in)

### 1. Biochemical Characterization

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Sequencing of culture by 16S rRNA/ITS/other (600 bases)	7000/- per sample
Sequencing of culture by 16S rRNA/18S rRNA/other (~1200 bases)	10000/- per sample
Freeze-drying of microbial cultures (20 ampoules)	10000/- per sample
Identification by VITEK 2	2500/- per sample
Antibiotic susceptibility testing by VITEK 2	3500/- per sample
API-Zym and CH50 test	4000/- per sample
Real time PCR	1500/- per gene
Sequencing of purified Genomic/Plasmid DNA/PCR product (600 bases)	2000/- per sample
Sequencing of purified Genomic/Plasmid DNA/PCR product (1200 bases)	4000/- per sample

### 2. Elemental Analysis

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
AAS	1500/- per element
ICP-OES	4000/- per sample (up to 4 elements) + 500 extra for each element
CHNS Analysis	CH - 600/-; N - 600/-; S - 600/- per sample

### 3. ESCA Analysis

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Normal XPS	6000/- per sample
Normal UPS	9000/- per sample
Normal XPS+UPS	14000/- per sample
XPS+ data analysis (Peak fitting, composition analysis)	10000/- per sample
XPS + Mapping	15000/- per sample
XPS + Depth Profiling	15000/- per hour (+ Rs. 6000/- per additional hour)
ESCA (under ambient conditions)	25000/- per sample

#### 4. Magnetic Measurements

Technique	Analytical Charges in Rs.
VSM (M-H) $\pm 1.5$ T	6000/- per sample
VSM (M-T) $\leq 0.5$ T	12500/- per sample
VSM (PPMS) M-H $\pm 5$ T at RT	8000/- per sample
SQUID (M-H) $\pm 6$ T at RT	8000/- per sample
SQUID (M-H) $\pm 6$ T at any other temp.; 5 - 300 K	12000/- per sample, per temperature
SQUID (M-T) normal scan; 5 -300 K; $\leq 0.5$ T	15000/- per sample
SQUID (M-T)/(M-H) any special scan	Please contact for details

#### 5. Mass spectrometry/Chromatography Techniques

Technique	Analytical Charges in Rs.
Gas Chromatography	1000/-per sample
GC-MS	4000/- (Per injection) + 200/- per peak
High Temp GPC	18000/- per sample
GPC (CHCl <sub>3</sub> , THF)	9000/- per sample
Aq. GPC	7500/- per sample
UPLC	2000/- per sample
HPLC (UV, UV-RI detector)	2000/- per sample
HPLC (Quaternary Pump system)-Quantification	7000/- per sample
Protein Chromatography	16000/- per day
Atmospheric Pressure-MALDI	4000/- per hour
LC-HRMS (Analysis with accurate mass: either +ve or -ve mode)	4000/- per sample
LC-HRMS (Analysis with accurate mass: +ve and -ve mode)	4500/- per sample
LC-HRMS (Fragmentation analysis-single molecule)	5000/- per sample
LC-HRMS (Mixture sample analysis with accurate mass: either +ve or -ve mode)	6000/- per sample
LC-HRMS (Mixture sample analysis with accurate mass: +ve and -ve mode)	6500/- per sample
LC-HRMS (Protein sequencing)	6000/- per sample (+ 2000 extra for sample preparation)
HR-MS (PTM analysis)	8000/- per sample (+ 2000 extra for sample preparation)
LC-MS <sup>E</sup> (Quantitative proteomics)	10000/- (+ 2000 extra for sample preparation)
LC-MS -simple analysis (either +ve or -ve mode)	1500/- per sample
LC-MS -simple analysis (+ve and -ve mode)	2000/- per sample
LC-MS -mixture sample analysis (+ve or -ve mode)	2500/- per sample
LC-MS -mixture sample analysis (+ve and -ve mode)	3000/- per sample
LC-MS/MS-TOF: Triple TOF -analysis of processed sample (+ve or -ve mode)	4000/- per sample

LC-MS/MS-TOF: Triple TOF -analysis of processed sample (+ve and –ve mode)	4500/- per sample
LS-MS/MS-TOF: Triple TOF -analysis of processed sample (Fragmentation analysis)	5000/- per sample
LC-MS/MS-TOF: Triple TOF -mixture sample analysis --analysis of processed sample (+ve or –ve mode)	5000/- per sample
LC-MS/MS-TOF: Triple TOF- mixture sample analysis -analysis of processed sample (+ve and –ve mode)	5500/- per sample
LC-MS/MS-TOF: Triple TOF- (Protein sequencing of single protein)	6000/- per sample (+ 2000 extra for sample preparation)
LC-MS/MS-TOF: Triple TOF -(Complex mixture IDA/Protein identification with sample processing)	10000/- per sample (+ 2000 extra for sample preparation)
LC-MS/MS-TOF: Triple TOF (PTM analysis of single protein)	8000/- per sample (+ 2000 extra for sample preparation)
LC-MS/MS-TOF: Triple TOF- LC-MS/MS (SWATH analysis- quantitative proteomics & protein profiling of complex mixture with sample processing)	13000/- per sample (+ 2000 extra for sample preparation)
MALDI-TOF/TOF-MS (+ve or –ve mode)	3000/- per sample
MALDI-TOF/TOF-MS (+ve and –ve mode)	3500/- per sample
MALDI-TOF/TOF-MS (Fragmentation analysis)	4000/- per sample
MALDI-TOF/TOF-MS (intact cell MALDI)	3000/- per sample
MALDI-TOF/TOF-MS Mixture sample analysis (+ve or –ve mode)	5000/- per sample
MALDI-TOF/TOF-MS Mixture sample analysis (+ve and –ve mode)	5500/- per sample
MALDI-TOF/TOF-MS (Protein sequencing)	6000/- per sample (+ 2000 extra for sample preparation)
MALDI-TOF/TOF-MS (PTM analysis)	8000/- per sample (+ 2000 extra for sample preparation)

## **6. Microscopic Techniques**

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Optical microscope RT	1000/- per sample
Optical microscope HT	3000/- per hr.
Confocal Microscope	10000/- per sample
AFM	5000/- per hour
<b>SEM – Low resolution</b>	
SEM	2000/- per sample
SEM+EDX	3000/- per sample
<b>SEM – High resolution</b>	
SEM (High vacuum mode)	4000/- per sample
SEM (High vacuum mode)+EDX	6000/- per sample
SEM (Low vacuum mode)	5000/- per sample
SEM (Low vacuum mode)+EDX	7000/- per sample
SEM (ESEM mode)	7000/- per sample

SEM (FIB mode)	10000/- per sample
SEM (FESEM)	7000/- per sample
TEM	10000/- per sample
TEM+EDX	15000/- per sample

### **7. NMR Analysis**

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
300/400 MHz NMR -Solid state (13C, 29Si, 31P, 15N etc)	12000/- per sample up to 4 hr data collection; 1500/- per every additional hr.
300/400 MHz NMR -Solid state (27Al, 23Na etc)	5000/- per sample for first one hr; 1500 every additional hr
400 MHz NMR -Solution state (1H,19F)	2000/- per sample for first one hr; 1500 every additional hr
400 MHz NMR -Solution state (13C, 31P, 15N,29Si etc )	4000 per sample for first 2hrs ; 1500 every additional hr
500 MHz NMR -Solution state 1H	2500/- per sample for first one hr; 1800 every additional hr
500 MHz NMR Solution State (13C, 31P, 15N,29 Si etc)	5000/- per sample for first two hrs; 1800 every additional hr
500 MHz NMR -13C High temperature (10mm probe)	10000/- per sample for first 5 hrs; 2000 every additional hr
700 MHz NMR -Solution state (1H, 13C, 31P, 15N etc)	10000 /- per sample for first one hr; 7500/- for every additional hr.
700 MHz NMR -Solid state (13C, 29Si, 15N, 31P etc)	20000 /- per sample for first one hr; 7500/- for every additional hr.

### **8. Spectroscopic Techniques**

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
UV-Vis (liquid)	1000/- per sample
UV-Vis (Solid)	3000/- per sample
UV-Vis-NIR (liquid)	2500/- per sample
UV-Vis-NIR (Solid)	5000/- per sample
FTIR	1000/- per sample
Fluorescence spectrometer	1500/- per sample
CD spectrophotometer	2500/- per sample
Raman Spectroscopy (regular)	2000/- per sample
Raman Spectroscopy (Low Temp)	5000/- per each temp.

## 9. Thermal Analysis

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
TG/DTA	3000/- per hour
DSC	3000/- per hour
STA	3000/- per hour
TMA	3000/- per hour
DMA	3000/- per hour

## 10. Water Analysis

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Total organic carbon (TOC)	1500/- per sample
Biochemical oxygen demand (BOD)	2000/- per sample
Chemical oxygen demand (COD)	1500/- per sample
TDS and conductivity, dissolved oxygen (DO)	1000/- per sample
Total nitrogen (TN)	1500/- per sample
Total phosphate (TP)	1000/- per sample
Hardness	1000/- per sample
pH, density & viscosity	500/- per sample
Alkalinity	1000/- per sample

## 11. X-ray Techniques

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Powder X-ray diffraction (regular scan)	2000/- per sample
Powder X-ray diffraction (regular scan) -2D scan	5000/- per sample
Powder X-ray diffraction -slow scan	6000/- per hr.
Powder X-ray diffraction (0.5 to 10 deg)	2500/- per sample
Powder X-ray diffraction (0.5 to 10 deg) -slow scan	8000/- per hr.
Powder XRD -HT	8000/- per hr.
Powder XRD -LT	10000/- per hr.
Single Crystal XRD	25000/- for 4 hrs + 5000/- for additional hrs
Single Crystal XRD (Phase identification by unit cell measurement)	Rs. 5000/- per sample
Single Crystal XRD (without structure determination/analysis)	Rs. 15000/- per sample
SAXS	15000/- for 2hrs + 5000/- per additional hr.

## 12. Miscellaneous Techniques

<b>Technique</b>	<b>Analytical Charges in Rs.</b>
Surface Area	5000/-per sample
Surface Area: Total Analysis	10000/- per sample
Basic Physisorption system : TPD	10000/- per day
Polarimeter	500/- per sample
Cyclic voltammetry	1000/- per sample
Impedance analysis	3000/- per sample
Ionic conductivity measurement	4000/- per sample
Super capacitor testing	5000/- per sample
PEM fuel cell test station: 9 cm <sup>2</sup> Single cell testing	5000/- per sample
PEM fuel cell test station: 45 cm <sup>2</sup> Single cell testing	8000/- per sample
Rheology (ARES)	5000/- per sample
Particle Size	5000/- per sample
Zeta potential	5000/- per sample
Charge carrier mobility measurement (CELIV/Photo-CELIV technique)	10000 /- per sample (additional charges may apply for sample preparation)
Charge carrier mobility measurement (from time of flight (TOF) technique)	12000/- per sample (additional charges may apply for sample preparation)