



## Analytical Service Charges

The charges listed below are applicable to industrial clients.

- A flat 50% discount is offered to academic institutions.
- The government R&D institutions, including CSIR laboratories, receive a 25% discount.
- Start-ups and incubators are eligible for a 50% discount.

Sr. No.	Analysis Type	Charges (₹)
<b>X-ray Techniques</b>		
<b>Powder XRD</b>		
1	Powder X-ray diffraction (regular scan) (15 min)	₹ 2000/sample
2	Powder X-ray diffraction (regular scan) high end machine (30 min scan) (Model No)	15 min: ₹ 3000/sample 30 min: ₹ 5000/sample
3	Powder X-ray diffraction (regular scan) - 2D scan	₹ 5000/sample
4	Powder X-ray diffraction – 1 hour scan	₹ 6000/sample
5	Powder XRD-HT	₹ 10000/- up to 4 temperatures range. 15 mins scan.
<b>Single Crystal XRD</b>		
6	Single crystal development by crystallization	₹ 5000-₹ 10000/sample depending on the number of crystallization trials
7	Single Crystal XRD (small molecule)	₹ 5000/hour
8	Single Crystal XRD (small molecule)	₹ 5000/sample

	(Phase identification by unit cell measurement)	
9	Single Crystal XRD (crystal structure solution, refinement) (small molecule).	₹ 15000-₹ 30000/sample depending on the complexity and disorder modelling
10	Crystal Structure Report	₹ 5000/sample
11	VT-PXRD using Single Crystal XRD instrument	₹ 3000 per Temp. Points.
12	VT-SCXRD (90 K – 500 K)	₹ 5000/hour/Temp. Points.
13	Single Crystal XRD (macromolecule)	₹ 5000/hour
14	Crystal structure analysis of protein crystals	Contact us
<b>Other X-ray Techniques</b>		
15	SAXS	₹ 7500 per hour
16	3D X-ray Micro-computed Tomography (micro-CT)	₹ 20,000/sample for imaging + additional ₹ 5000/sample for analysis
17	XRF	₹ 2000/sample
<b>Mass Spectrometry Techniques</b>		
18	LC-HRMS analysis of a single molecule with accurate mass: either +ve or -ve mode (Orbitrap MS)	₹ 5000/sample
19	LC-HRMS, fragmentation data of a single molecule (Orbitrap MS)	₹ 6000/sample
20	LC-HRMS, mixture or complex sample analysis with accurate mass determination: either +ve or - ve mode (Orbitrap MS) (40 min acquisition)	₹ 8000/sample
21	LC-HRMS, mixture or complex sample fragmentation data: either +ve or - ve mode (Orbitrap MS) (40 min acquisition)	₹ 12000/sample
22	Protein sequencing of single protein by LC-HRMS (Orbitrap MS)	₹ 10000/sample (+₹ 3000 extra for sample processing)
23	LC-MS/MS-TOF: Triple TOF- (Protein sequencing of single protein)	₹ 10000/sample (+ ₹ 3000 extra for sample processing)
24	LC-MS/MS-TOF: Triple TOF- (complex mixture)	₹ 15,000/sample (+₹ 3,000/- extra for sample processing).

25	LC-MS/MS-TOF: Triple TOF (PTM analysis of single protein)	₹ 20,000/sample (+₹ 3,000/- extra for sample processing) + 5,000/- peptide annotation.
26	LC-MS/MS-TOF: Triple TOF- LC-MS/MS (IDA and SWATH analysis for relative quantification of proteins) in triplicates of 110 min	₹ 30,000/sample (+ ₹ 3,000/- extra for sample processing)
27	MALDI-TOF-MS (+ve or –ve mode)	₹ 5,000/sample
28	Untargeted Metabolomics (up to 30 min acquisition time) in duplicate analysis	₹ 20,000/sample
29	Peptide mapping (PMF) by MALDI-TOF-MS	₹ 8,000/sample (+₹ 3,000 extra for sample processing)
30	Targeted quantification of metabolite or peptide by MRM or PRM*	₹ 30,000/transition per sample For each additional transition ₹ 5,000/ - extra
<b>Chromatography Techniques</b>		
31	Gas Chromatography	₹ 1000/sample
32	GC-MS	₹ 3000/sample (30 min run) Metabolomics studies (plant/ animals samples) ₹ 5000/sample (50 min run)
33	High Temp GPC (polymer samples)	₹ 20000/sample
34	GPC (CHCl <sub>3</sub> , THF) (polymer samples)	₹ 9000/sample
35	Aq. GPC (polymer samples)	₹ 7500/sample
36	UPLC	₹ 5000/sample
37	Purity by HPLC	₹ 4000/sample
38	Assay by HPLC	₹ 5000/sample
39	HPLC method development	₹ 5000/day
40	GPC - CHCl <sub>3</sub> , EtOAc (2.5 L) (Prep. HPLC)	₹ 5,000
41	GPC - CHCl <sub>3</sub> , EtOAc (5.0 L) (Prep. HPLC)	₹ 10,000
42	Reverse phase (2.5 L) (Prep. HPLC)	₹ 9,000
43	Reverse phase (5.0 L) (Prep. HPLC)	₹ 18,000
44	Chiral separation (Isocratic, 2.5 L) (Prep. HPLC)	₹ 15,000
45	Chiral separation (Isocratic, 5 L) (Prep. HPLC)	₹ 25,000

46	Chiral separation (gradient, 2.5 L) (Prep. HPLC)	₹ 15,000
47	Chiral separation (gradient, 5 L) (Prep. HPLC)	₹ 25,000
<b>NMR Spectroscopy Analysis</b>		
48	300/400 MHz NMR -Solid state ( $^{13}\text{C}$ , $^{29}\text{Si}$ , $^{31}\text{P}$ , $^{15}\text{N}$ , etc.)	₹ 16,000/sample for 4 hours, ₹ 2,000/every additional hour
49	300/400 MHz NMR -Solid state ( $^{27}\text{Al}$ , $^{23}\text{Na}$ , etc.)	₹ 10,000/per sample for 1 hour, ₹ 2,000/every extra hour
50	500 MHz NMR –Solid state	₹ 14,000/sample for 1 hour, ₹ 4,000/every additional hour
51	400 MHz NMR -Solution state ( $^1\text{H}$ , $^{19}\text{F}$ )	₹ 2000/sample for first one hour; 1500/- every extra hour
52	400 MHz NMR -Solution state ( $^{13}\text{C}$ , $^{31}\text{P}$ , $^{15}\text{N}$ , $^{29}\text{Si}$ , etc.)	₹ 4000/sample for first 2 hour; ₹ 1500/- every additional hour
53	500 MHz NMR -Solution state $^1\text{H}$	₹ 2500/sample for first one hour; ₹ 1800/- every extra hour
54	500 MHz NMR Solution State ( $^{13}\text{C}$ , $^{31}\text{P}$ , $^{15}\text{N}$ , $^{29}\text{Si}$ , etc.)	₹ 5000/sample for first two hour; ₹ 1800/- every additional hour
55	500 MHz NMR - $^{13}\text{C}$ High temperature (10mm probe)	₹ 10000/sample for first 5 hour; ₹ 2000/- every additional hour
56	700 MHz NMR -Solution state ( $^1\text{H}$ , $^{13}\text{C}$ , $^{31}\text{P}$ , $^{15}\text{N}$ , etc.)	₹ 10000/sample for first one hour; ₹ 7500/- for every additional hour
57	700 MHz NMR -Solid state ( $^{13}\text{C}$ , $^{29}\text{Si}$ , $^{15}\text{N}$ , $^{31}\text{P}$ , etc.)	₹ 20000/sample for first one hour; ₹ 7500/- for every additional hour
<b>Elemental Analysis</b>		
58	Atomic Absorption Spectroscopy (AAS)	₹ 1500/element
59	ICP-OES	₹ 4000/sample (up to 4 elements) + ₹ 500 extra for each element
60	CHNS Analysis	CH - ₹ 600/-; N - ₹ 600/-; S - ₹ 600/ sample
<b>Microscopic Techniques</b>		
61	SEM (FESEM)	₹ 7000/sample
62	SEM (SEM+EDX)	₹ 9000/sample
63	SEM (SEM+EDX+Mapping)	₹ 12000/sample
64	TEM	₹ 10000/sample

65	TEM+EDX	₹ 12000/sample
66	HRTEM (JEOL JEM-F200 HRTEM) a. Bright Field b. Dark Field c. Electron Diffraction	₹ 15000/sample
67	HRTEM with EDS	₹ 17000/sample
68	Normal STEM Imaging a. HAADF b. Bright Field c. Dark Field	₹ 20000/sample
69	HR-STEM+Mapping	₹ 25000/sample
70	AFM (basic mode) (Topography)	₹ 10000/sample
71	AFM (advanced mode) (MFM, PFM, Conductive AFM, KPFM, EFM, Resiscope, Force Modulation, SThM)	₹ 10000/sample + additional ₹ 10000/per advanced mode
72	AFM (sample preparation)	₹ 2000/sample
73	Optical microscope RT	₹ 1000/sample
74	Optical microscope High Temperature (Hot Stage Microscopy)	₹ 3000/hour
75	Confocal Microscope	₹ 10000/sample
<b>Thermal Analysis (TGA/DTA/DSC)</b>		
76	TG/DTA	₹ 3000/sample
77	DSC	₹ 3000/sample
78	STA	₹ 3000/sample
79	DMA	₹ 4000/sample
80	Reaction Calorimetry of a reaction at low temperature and atmospheric pressure (non-toxic and non-corrosive).	₹ 38000/-
81	Reaction Calorimetry of a hydrogenation reaction under hydrogen pressure (non-toxic and non-corrosive).	<b>Contact us</b>
82	Thermal Screening of a liquid or slurry sample.	₹ 6,000/sample
<b>Spectroscopic Techniques</b>		
83	UV-Vis (liquid)	₹ 1000/sample
84	UV-Vis (Solid)	₹ 3000/sample

85	UV-Vis-NIR (liquid)	₹ 2500/sample
86	UV-Vis-NIR (Solid)	₹ 5000/sample
87	FTIR	₹ 1000/sample
88	Fluorescence spectrometer	₹ 1500/sample
89	CD spectrophotometer	₹ 2500/sample
90	Raman Spectroscopy (regular)	₹ 3000/sample
91	Raman Spectroscopy (RT-800 °C)	₹ 10000/sample
92	Raman Spectroscopy (scan + mapping)	₹ 10000/sample
<b>Surface Characterization Techniques (XPS/ESCA)</b>		
93	Normal XPS	₹ 6000/sample
94	Normal UPS	₹ 9000/sample
95	Normal XPS+UPS	₹ 14000/sample
96	XPS+ data analysis (Peak fitting, composition analysis)	₹ 15000/sample
97	XPS + Mapping	₹ 15000/sample
98	XPS + Depth Profiling	₹ 15000/h (+ ₹ 6000/additional)
99	ESCA (under near-ambient conditions)	₹ 50000/sample/day
<b>Magnetic Measurements</b>		
100	VSM (M-H) $\pm 1.5$ T	₹ 6000/sample
101	VSM (M-T) $\leq 0.5$ T	₹ 12500/sample
102	VSM (PPMS) M-H $\pm 6$ T at RT	₹ 8000/sample
103	SQUID (PPMS) M-H $\pm 6$ T at RT	₹ 10000/sample
104	VSM (M-H) $\pm 6$ T at any other Temp.; 5 - 300 K	₹ 12000/sample/temp.
105	SQUID (M-H) $\pm 6$ T at any other Temp.; 5 - 300 K	₹ 14000/sample
106	VSM (M-T) normal scan; 5 -300 K; $\leq 0.5$ T	₹ 15000/sample
107	SQUID (M-T) normal scan; 5 -300 K; $\leq 0.5$ T	₹ 18000/sample
108	SQUID (M-T)/(M-H) any special scan	Contact us
109	Analysis Charges (including report)	₹ 4000/sample
110	Impedance analysis	₹ 3000/sample
<b>BET Surface Area Analysis</b>		

111	(a) Degassing 120 deg/2h under vacuum before analysis (b) Surface Area Analysis - only BET SSA (max 1 Bar)	₹ 4,000/-
112	(a) 8 to 12 hrs degassing under vacuum before analysis ( <b>as special case only</b> ) (b) Surface Area Analysis only BET SSA (max 1 Bar)	₹ 8,000/-
113	(a) Upto 8 hrs degassing under vacuum before analysis (b) Surface Area Analysis Total analysis (Including BET SSA+Pore Size Distribution) (max 1 Bar)	₹ 10,000/-
114	(a) 8 to 12 hrs degassing under vacuum before analysis ( <b>as special case only</b> ) (b) Surface Area Analysis Total analysis (Including BET SSA+Pore Size Distribution) (max 1 Bar)	₹ 12,000/-
115	(a) Degassing 120 deg/2h under vacuum before analysis (b) N <sub>2</sub> adsorption @ 25°C (RT) (adsorption capacity only) (max 1 Bar)	₹ 4,000/-
116	(a) Upto 8 hrs degassing under vacuum before analysis # (b) N <sub>2</sub> adsorption @ 25°C (RT) (adsorption capacity only) (max 1 Bar)	₹ 6,000/-
117	(a) 8 to 12 hrs degassing under vacuum before analysis ( <b>as special case only</b> ) # (b) N <sub>2</sub> adsorption @25°C (RT) (adsorption capacity only) (max 1 Bar)	₹ 8,000/-
118	(a) Upto 8 hrs degassing under vacuum before analysis # (b) CO <sub>2</sub> adsorption 0°C or, 25°C (RT) (max 1 Bar)	₹ 12,000/-
119	(a) 8 to 12 hrs degassing under vacuum before analysis ( <b>as special case only</b> ) # (b) CO <sub>2</sub> adsorption 0°C or, 25°C (RT) (max 1 Bar)	₹ 15,000/-
<b>Particle Size and Zeta Potential Measurements</b>		

120	Particle Size	₹ 5000/sample
121	Zeta potential	₹ 5000/sample
122	Charge carrier mobility measurement (CELIV/Photo-CELIV technique)	₹ 10000/sample (additional charges may apply for sample preparation)
123	Charge carrier mobility measurement (from time of flight(TOF) technique)	₹ 12000/sample(additional charges may apply for sample preparation)
<b>Biochemical Characterization</b>		
124	Real time PCR	₹ 2000/sample
<b>Microbial Culture</b>		
125	Active form on slant/stab	₹ 6000/sample
126	Freeze dried/ lyophilized vial	₹ 6000/sample
<b>Deposit of microbial culture</b>		
127	General Deposit	Free
128	Safe Deposit (For 1 year)	₹ 10000/-
129	Safe Deposit renewal (yearly, from 2nd year)	₹ 5000/-
<b>Molecular Identifications</b>		
130	Sequencing of culture/ DNA by 16S (bacteria)/ITS/18S/D1-D2 (fungal/yeast) (600-700 bases) with BLAST report	₹ 3,500
131	Sequencing of culture/ DNA by 16S (bacteria)/18S(fungal/yeast) (1100-1200 bases) with BLAST report	₹ 5,000
132	Sequencing of Non-purified PCR product(~600 bases)	₹ 2500/-
133	Sequencing of Non-purified PCR product(~1200 bases)	₹ 3800/-
134	Sequencing of purified PCR product/Cloned plasmid DNA (~600 bases)	₹ 1400/-
135	Sequencing of purified PCR product/Cloned plasmid DNA (~1200 bases)	₹ 2500/-
136	Phylogenetic analysis	₹ 1,500
<b>Biochemical/Phentypic</b>		
137	VITEK-MS (bacteria, fungi yeast)	₹ 5000/sample



138	VITEK-2 (bacteria, yeast)	₹ 2500/sample
139	Antibiotic susceptibility testing by VITEK	₹ 2000/sample
140	API-Zym (Enzyme)/API-CH50 (substrate utilization) test	₹ 6000/sample
141	Freeze-drying of microbial culture (15 ampoules)	₹ 20000/sample
142	Cycle sequenced ready to run samples 600 bases (only for 1000 samples and above)	₹ 300/-
143	Microbial Whole genome sequencing/ metagenome sequencing (amplicon/shotgun)	Contact us
144	Bacterial genome sequencing with basic bioinfo analysis, 50-100X coverage	₹ 20,000
145	Fungal/ Actionobacteria genome sequencing with basic bioinfo analysis, 50-100X coverage	₹ 40,000
<b>Miscellaneous Characterizations</b>		
146	Polarimeter	₹ 500/sample
147	Cyclic voltammetry	₹ 1000/sample
148	Ionic conductivity measurement	₹ 4000/sample
149	Super capacitor testing	₹ 5000/sample
150	PEM fuel cell test station: 9 cm <sup>2</sup> Single cell testing	₹ 5000/sample
151	PEM fuel cell test station: 45 cm <sup>2</sup> Single cell testing	₹ 8000/sample
152	Rheology (ARES)	₹ 5000/sample
153	Thin Film Deposition using thermal evaporator	₹ 5000/deposition* (*depends on the deposition thickness)