IIT PALAKKAD

Approved analytical charges for Internal Users
Central Instrumentation Facility (CIF) and
Central Micro-Nano Fabrication Facility (CMFF)

INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD
भारतीय प्रौद्योगिकी संस्थान पालक्काड

Under Ministry of Education, Govt. of India
शिक्षा मंत्रालय के अधीन, भारत सरकार

CIF

Sl. No.	Instrument Name	Analysis	Unit	Sponsored Research/Students Category (Internal)	Industry Consultancy (Internal)
1	64-channel EEG amplifier		Per Hour	**510**	**2040**
2	Experiment with VNA/ Signal Analyzer/ Microwave Signal Generator		1 Hour	**55**	**220**
			1 day (9.00hrs to 13.00hrs) and (14.00hrs to 17.00hrs)	**220**	**880**
3	Fourier Transform Infra Red Spectroscopy	With KBR Pellet	If KBr pellet has to be made by CIF staff	**145**	**580**
			If KBr Pellet is brought by the user	**95**	**380**
		For ATR Analysis		**95**	**380**
4	Liquid Chromatogram Mass Spectrophotometer (Method is based on water, acetonitrile mixture. The cost indicated is for a 15 min run. Actual cost may vary depending on the method.)	LC MS analysis	If the method is for 15 minute run	**145**	**580**
		LC MS MS Analysis. If Sample is not submitted in prescribed vials an additional cost of 85 /- will be added	If the method is for 15 minute run	**165**	**660**
5	Nuclear Magnetic Resonace Spectrophotometer	If Sample preparation is to be done by CIF. Cost per sample in respective solvents. (If the sample is not submitted in NMR tube,the same can be purchased from CIF with the cost of INR 1000/ tube.)	CDCl3	**115**	**460**
			CD3OD	**215**	**860**
			Deuterated DMSO	**315**	**1260**
			D2O	**415**	**1660**
		Sample is prepared by the user in NMR tube	per sample	**65**	**260**
6	TG DTA MS	Program for a routine run from RT to 1100 deg C at 10 deg./min. *Cost may change according to the Temperature programme and gases.	For Alumina Pan	**423**	**1692**
			For Pt/Rh Pan	**1367**	**5468**
	TG DTA	Program for a routine run from RT to 1100 deg C at 10 deg./min. *Cost may change according to the Temperature programme and gases.	For Alumina Pan	**330**	**1320**
			For Pt/Rh Pan	**1274**	**5096**
7	DC Probe Station and Semiconductor Parameter Analyser	DC Probe Station (RT to 150 deg C) with Semiconductor Parameter Analyser	per hour	**60**	**240**
		Semiconductor Parameter Analyser	per hour	**35**	**140**
8	Mask Aligner	Mask will be brought by the User. Prices comparable or lesser than what IISc charges. Prices are high due to consumables (resists, gases). Available resists for common use will be put up. Any resists not mentioned in the list will have to be brought by the User. It will be encouraged to club slots because it would not be advisable to switch on/off the lamp multiple times a day.	per hour	**800**	**3200**
9	FE S E M	SEM Image	per hour	**160**	**640**
		SEM + EDS	per hour	**185**	**740**
		SEM + EDS mapping	per hour	**210**	**840**
		SEM Image + EBSD + Mapping	per Specimen	**310**	**1240**
		Au/Pd coating	per Specimen	**210**	**840**
		SEM + Lithography	per use	**860**	**3440**
10	Universal hardness tester		per specimen with max. of 10 indents	**60**	**240**
11	Non contact Optical Profilometer		per hour	**110**	**440**
	Electropolishing		per specimen	**50**	**200**
12	XRD	Powder/thin film	Per Sample	**110**	**440**
		XRR	Per Sample	**160**	**640**
		SAXS	Per Sample	**160**	**640**
		High Temperature/Stress /Pole figure	Per Sample	**160**	**640**
13	Raman Spectroscopy	Normal Scan – 514 nm, 633 nm	Per Sample	**50**	**200**
		UV laser – 325 nm	Per Sample	**50**	**200**
		Temperature Dependence from 80K to 600K / Insitu 4 probe measurement	1. Upto 15 Spectra (Liquid Nitrogen to be arranged by user)	**200**	**800**
			2. Upto 25 Spectra (Liquid Nitrogen to be arranged by user)	**250**	**1000**
			3. Upto 35 Spectra (Liquid Nitrogen to be arranged by user)	**300**	**1200**
			4. Upto 45 Spectra (Liquid Nitrogen to be arranged by user)	**350**	**1400**
			5. Upto 55 Spectra (Liquid Nitrogen to be arranged by user)	**400**	**1600**
			6. Upto 65 Spectra (Liquid Nitrogen to be arranged by user)	**450**	**1800**
			7. Upto 75 Spectra (Liquid Nitrogen to be arranged by user)	**500**	**2000**
			8. Per sample (Liquid Nitrogen arranged by CIF for first 10L and Rs.120/ L charged for additional LN2 used).	**1500**	**6000**

		Polarization	1. Upto 15 Spectra	**200**	**800**
			2. Upto 25 Spectra	**250**	**1000**
			3. Upto 35 Spectra	**300**	**1200**
			4. Upto 45 Spectra	**350**	**1400**
			5. Upto 55 Spectra	**400**	**1600**
			6. Upto 65 Spectra	**450**	**1800**
			7. Upto 75 Spectra	**500**	**2000**
14	High Performance Liquid Chromatoraphy	Method is based on water, acetonitrile mixture. The cost indicated is for a 15 min run. Actual cost may vary depending on the method. If Sample is not Submitted in Prescribed Vials an Additional cost of 85 /- will be added, If sample collecting Vials also has to provide by CIF additional cost of 50/- per samples needs to collect, will be added.	Per Sample	**160**	**640**
15	RF Sputtering system	(Tentative cost, will be revised after equipment if fully commissioned.) Standard targets will be supplied. Gold and Platinum deposition will incur an additional cost, depending on actual duration of deposition.	per 3 h	**350**	**1400**
16	Wet bench for cleaning and Lithography	Cost Includes Wet Bench and cost of DI water Plant	30 min	**55**	**220**
		DI Water alone	Type 1 Water (Ultra Pure)/Liter	**15**	**60**
			Type 2 Water/Liter	**10**	**40**
17	Mixed signal Digital Oscilloscope		per hr.	**25**	**100**
18	RF Probe station	one probe	per session	**55**	**220**
		two probes	per session	**75**	**300**
		three probes	per session	**95**	**380**
		four probes	per session	**115**	**460**
19	Chemisorption	Gases used are Ar and 10 % Hydrogen in Ar (* Cost may vary according to the gases used and method)	per sample	**670**	**2680**
20	GC	For organic compounds with boiling point below 150 oC. Compounds should not decompose upto 150 oC.	per sample for Single Column Operation	**260**	**1040**
21	Confocal Laser Scanning Microscope		Per Slot (2 Hours)	**300**	**1200**
22	Automatic PCB Manufacturing Machine with PTH Facility	Fabrication on the printed circuit board (PCB) with etching and milling. (The user should bring the PCB substrate for fabrication)	1 Hour	**150**	**600**
			2 Hour	**250**	**1000**
			3 Hour	**400**	**1600**
			More than 3 Hour	**600**	**2400**
23	Arc Melt Furnace		For Four hours of operatrion	**150**	**600**
24	Ball Mill	Grinding jar of 50 ml and Milling balls shall be brought by the user.	For max of Two hours of operatrion	**60**	**240**
25	Muffle Furnace	Suitable Boats or Crucible shall be brought by the user.	For Four hours of operatrion	**30**	**120**
26	Rapid Thermal Processing System	The boats and tube shall be brought by the user.	For Four hours of operatrion	**90**	**360**
27	Quartz tube Sealing Station		1 No	**50**	**200**
			2 Nos	**80**	**320**
		Quartz tube	1 No. (Arranged by CIF) 18 mm OD, 15 mm ID	**500**	**2000**
		Diffusion Pump Vaccum (10-5 mbar)	Per Slot (Liquid Nitrogen arranged by CIF)	**1600**	**6400**
28	High Temperature Chamber Furnace 1700°C		Per Sample	**60**	**240**
29	High Resolution Optical Microscope		Per Slot of 1 Hour	**50**	**200**
30	Time-Resolved Spectrofluorometer		Per Decay	**120**	**480**
			Quenching Study (For 10 Samples)	**1200**	**4800**
			FRET (Per Decay)	**120**	**480**
			Anisotropy (Per Decay)	**120**	**480**
			TRES (Per Decay)	**120**	**480**
31	Dual Channel Source Meter		For Full Day	**50**	**200**
32	Dynamic Shear Rheometer		Frequency/Time/Temperature sweep	**300**	**1200**
			MSCR	**300**	**1200**
			LAS	**300**	**1200**
			Building Material Cell	**400**	**1600**
			DMA Analysis (Tension/Torsion)	**450**	**1800**
			Flow of consolidated powders	**600**	**2400**
			Tribology	**600**	**2400**
33	Argon Glove Box		Normal Operation Per Hour	**100**	**400**
			Large Antechamber Per Hour	**50**	**200**
34	Precision Diamond Wire Cutter		Cut Per Sample (Maximum 5 Cuts)	**75**	**300**
35	Variable Temperature Insert		Temperature range (2 K to 300 K) 2 days	**500**	**2000**
			Temperature range (300 mK to 300 K) 2 days	**650**	**2600**
			Temperature range (2 K to 300 K) 7 days	**1000**	**4000**
			Temperature range (300 mK to 300 K) 7 days	**1300**	**5200**
			Temperature range (2 K to 300 K) with magnet 2 days	**700**	**2800**
			Temperature range (300 mK to 300 K) with magnet 2 days	**900**	**3600**
			Temperature range (2 K to 300 K) with magnet 7 days	**1400**	**5600**
			Temperature range (300 mK to 300 K) with magnet 7 days	**1800**	**7200**
36	Gas Bank	Per 100 Litres of Gas Consumption	Nitrogen	**112**	**448**
			Oxygen	**15**	**60**
			Argon	**112**	**448**
37	Squid Magnetometer	DC Magnetization vs. Magnetic Field (0 to ∓ 7 T) or DC Magnetization vs. Temperature (1.8 K to 350 K) or AC Susceptibility Measurements (frequency = 1 - 499 Hz; amplitude = 2- 10 Oe)	First Day	**400**	**1600**
			Second Day Onwards	**300**	**1200**

38	500 MHz NMR#	Solution State Probe (5.0 mm BBFO)	Proton	**10**	**40**
			Carbon (Proton Decoupled)	**20**	**80**
			2D (COSY, NOESY, HSQC, HMBC etc.)	**50**	**200**
			VT NMR Experiments (Temperature range -60°C to +90°C)	*****	*****
39	Nano Particle Size Analyser with Zeta Potential	Particle Size Analysis	Per Sample	**40**	**160**
		Zeta Potential Analysis	Per Sample	**60**	**240**
		Zeta Potential Measurement and Particle Size analysis	Per Sample	**100**	**400**
***The charges will be based on the number of experiments conducted. The internal user must provide all the necessary consumables required for conducting the VT experiments.**					
#Solvent Charges: D20-₹350, DMSO-d6-₹500, MeOD-₹400, CDCL3-₹60					
Approved charges applicable from November 02, 2026					