

Testing service charge, National Nanotechnology Center

Na	Instrument List or Method	Service Charge	Remarks	
No.		(Not included VAT)		
	ห้องปฏิบัติการวิเคราะห์ระดับนาโน (Nano (Characterization Laboratory / NCL)		
1	Atomic Force Microscopy (AFM)			
	- AFM analysis (Physical/Chemical analysis), (SPM) SEIKO SPA400		- 0	
	- AFM analysis (Biology analysis)	2,000 THB/sample/hour	For first hour	
	- AFM analysis (2nd hour onwards)	1,000 THB/hour/sample	Second hour onwards	
	- AFM tip	2,500 THB/tip		
	- STM tip	7,000 THB/tip		
2	RAMAN Spectroscopy			
	- Raman spectrum (normal mode)	3,000 THB/hour		
	- Raman chemical mapping, Confocal Raman	5,000 THB/hour		
3	Surface area and porosity meter analyzer (ISOTHERM/BET)			
	- Isotherm (Surface area and porosity meter analyzer)	500 THB/hour		
	- BET (Surface area)	1,000 THB/sample		
4	Contact Angle Meter			
	- Contact Angle Measurement	2,500 THB/hour	Pico droplet measurement,	
			Temperture control	
5	Field Flow Fractionation (FFF)		<u> </u>	
	- Multi Flow FFF	3,500 THB/sample		
	- Centrifugal FFF	3,000 THB/sample		
6	Transmission Electron Microscopy (TEM)			
	- TEM analysis	3,500 THB/hour		
	- Element analysis	500 THB/image		
	- Cu-C Grid	200 THB/piece		
	- Cu-C Grid (Grid Preparation Only, No analysis)	500 THB/piece		
7	Environment Scanning Electron Microscopy (E-SEM)			
	- E-SEM (Environment Scanning Electron Microscopy)	2,000 THB/hour	Accredited ISO/IEC17025	
	- Coating : Platinum, Gold, Carbon	500 THB/time		
	- Element analysis	500/image		
8	Focused Ion Beam Field Emission Scanning Electron Microscopy (FIB-FE-SEM)			
	- FE-SEM analysis	4,500 THB/hour		
	- Coating : Platinum, Gold, Carbon	500 THB/time		
	- Element analysis	500/image		
	- Biological Sample Preparation	3,500 THB/sample		
9	Fluorescence Stereomicroscopy			
	- Fluorescence Stereomicroscopy analysis	800 THB/hour		
10	Fluorescence Spectrometer			
	- Fluorescence analysis	1,200 THB/sample		
11	Fourier Transform Infrared Spectroscopy (FT-IR)			
	- ATR (Attenuate Total Reflective)	600 THB/sample		
	- KBr (Transmission)	600 THB/sample		
	- KBr Sample Preparation	200 THB/sample		

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12	Gas Chromatograph-Mass Spectrometer (GC-MS)			
	- GC-MS (Qualitative) analysis	2,500 THB/sample		
	- GC-MS (Quantitative) analysis (1-5 samples)	6,000 THB/sample		
	- GC-MS (Quantitative) analysis (6-10 samples)	4,500 THB/sample		
	- GC-MS (Quantitative) analysis (11 samples and more)	3,000 THB/sample		
13	Triple Quadrupole Gas Chromatography-Mass spectroscopy (GC-MS/I	MS)		
	- GC-MS/MS analysis	3,500 THB/sample		
14	Liquid Chromatography-Mass Spectroscopy-Mass Spectroscopy (LC-N	NS/MS)		
	- LC-MS/MS analysis	3,500 THB/sample		
15	High Performance Liquid Chromatography (HPLC)			
	- HPLC analysis	1,000 THB/sample		
16	Analytical Ultra-Centrifuge (AUC)			
	- Analytical Ultra-Centrifuge (Qualitative)	2,500 THB/sample		
17	Nano Mechanical Tester (NMT)			
	- Standard hardness and Young's Modulus test	3,000 THB/hour		
	- Dynamic and Temperature control test	4,500 THB/hour		
18	Nano Coater for EM			
	- Nano coater for EM	500 THB/time	Thickness less than 5 nm	
19	Weathering Testing Oven			
	- Weathering test (for 1 - 500 hours)	500 THB/hour		
	- Weathering test (501 hours onwards)	450 THB/hour		
	- Weathering testing Oven Sample Preparation	1,000 THB/time		
20	UV accelerated Weathering Tester			
	- UV accelerated weathering Test	100 THB/hour		
	- UV accelerated Weathering Testing Oven Sample Preparation	1,000 THB/time		
21	Mastersizer (HORIBA)			
	- Mastersizer (For water dispersion sample)	600 THB/sample		
	- Mastersizer (For solvents dispersion sample)	1,200 THB/sample		
22	Dynamic Light Scattering (DLS)			
	- Particle size analysis (For water dispersion sample)	600 THB/sample	Accredited ISO/IEC17025	
	- Particle size analysis (For solvents and oil dispersion sample)	1,000 THB/sample	Accreated 190/12c11029	
	- Zeta Potential (For water dispersion sample)	1,100 THB/sample		
	- Zeta Potential (For solvents dispersion sample)	1,500 THB/sample		
23	Optical Microscopy			
	- Optical Microscopy analysis	600 THB/hour		
24	Tensiometer	1		
	- Tensiometer Analysis	1000 THB/sample		
25	Critical Point Drying (CDP)	T		
	- Critical Point Drying Analysis	2,000 THB/sample		

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26	Thermogravimetric Analysis (TGA)		
	- TGA analysis	1,200 THB/hour	
	- Crucible pan (volume 70/100 μl)	1,000 THB/crucible	
	- Crucible pan (volume 150 µl)	1,500 THB/crucible	
27	Differential Scanning Calorimetry (DSC)		
	- DSC Analysis	1,200 THB/hour	
	- Pan DSC	200 THB/pan	
28	UV-Visible Spectrophotometer		
	- UV-Visible Analysis (Abs, %T)	600 THB/sample	
	- UV-Visible Analysis (%R)	900 THB/sample	
29	ICP-MS		
	- ICP-MS analysis	1,100 THB/element	
	- ICP-MS Sample Preparation	500 THB/sample	
	- Calibration curve	1,600 THB/set	
30	X-Ray Diffractometer (XRD) (1600 Watts)		
	- XRD Analysis (normal mode)	3,000 THB/hour	
31	Bench Top X-ray Diffraction Analyzer (600 Watts)		
	- Bench top X-ray Diffraction analysis (Within 30 minutes)	600 THB/sample	
	- Bench top X-ray Diffraction analysis (31 to 60 minutes)	1,000 THB/sample	
	- Bench top X-ray Diffraction analysis (after first hour)	600 THB/every 30 min	

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	ห้องปฏิบัติการความปลอดภัยทางนาโนเทคโนโลยี (Nano Safety and Risk Assessment Laboratory / SRA)				
32	Anti-bacteria Test (Qualitative/เชิงคุณภาพ)	•	•		
	- AATCC 147	1,500 THB/sample/bacteria	Control sample is charged at this rate. Report is included.		
	- JIS L 1902 (Qualitative)	1,500 THB/sample/bacteria			
	- CLSI M2-A11 (DISK)	1,500 THB/sample/bacteria			
33	Anti-bacteria test (Quantitative/เชิงปริมาณ)				
	- AATCC 100	3,000 THB/sample/bacteria			
	- JIS L 1902 (Quantitative)	3,000 THB/sample/bacteria			
	- JIS Z 2801	3,500 THB/sample/bacteria	Control sample is free of charged.		
	- ASTM E 2149	3,000 THB/sample/bacteria	Report is included.		
	- CLSI M7-A9 (MIC)	3,000 THB/sample/bacteria			
	- ISO22196 (Accredited ISO/IEC17025)	3,500 THB/sample/bacteria			
34	Others				
	- Sample Preparation	Depend on each sample			
	- Report	2,000 THB/copy			
	- Additional report (Thai/English)	500 THB/report			
	- Report delivery by Postal service (EMS)	50 THB/Package			
	- Report and retuned samples delivery by Postal service (EMS)	100 THB/Package	(For weight not over 1 kg)		
	- Fast Track Services for report & analysis	3 times additional charge	(Per regular rate)		

Remarks:

- 1. This service rate is applied from May 1, 2017 until further notice.
- 2. Report will be sent to customers when full payment is received.
- 3. Contact telephone no. +66 2564 7100 Ext. 6567, +66 2117 6567, email: iss@nanotec.or.th National Nanotechnology Center, INC 2 Tower B.

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Approved by

(Dr.Wannee Chinsirikul)

Exectutive Director

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