

Price list of services of the Department of Materials and Environmental Technology

Prices may change according to the amount of samples, the nature of the researched material, the speed of work and other circumstances. VAT is added to all prices.

Additional information can be obtained from the contact persons of the laboratories or the general contact of the institute at ek@taltech.ee.

Laboratory of Biofunctional materials

Contact: Vitali Syritski, vitali.syritski@taltech.ee, tel 620 2820

Service/ Analysis	unit	price, €	Notes
Particle size analysis by the dynamic light scattering (DLS) method in a liquid sample.	Sample	100	The price depends on the type of analysis and the number of samples. The minimum sample volume is 40 µl. Particle sizes range from 0.3 nm to 10 µm.
Microscopy Imaging and Analysis (Optical & Epifluorescence)	hour	80	The price depends on the type of analysis and the number of samples. 5 MP camera, objectives: 100×, 50×, 40×, 20×, 10×, longpass and bandpass FITC filter cubes, brightfield and darkfield modes.
Label-free determination of intermolecular interactions using a surface plasmon resonance (SPR) spectrometer.	hour	120	The price depends on the type of analysis and the number of samples. – Binding kinetics and affinity (KD) determination – Protein–protein and protein–ligand interaction analysis etc
Electrochemical measurements and battery testing	hour	120	The price depends on the type of analysis and the number of samples. – Cyclic voltammetry (CV), DPV, SWV etc.; – Electrochemical impedance spectroscopy (EIS); – Chronoamperometry and chronopotentiometry; – Electrochemical sensing and method development; – Battery charge–discharge and cycling tests.
Electrochemical corrosion testing of metals and coatings	hour	120	The price depends on the type of analysis and the number of samples. – Potentiodynamic polarization (Tafel analysis); – Electrochemical impedance spectroscopy (EIS); – Linear polarization resistance (LPR); – Open circuit potential (OCP) measurements; – Coating performance and degradation studies; – Corrosion rate analysis; – Testing in controlled corrosive environments; Etc.

Laboratory of Environmental Technology

Contact: Sergei Preis, sergei.preis@taltech.ee, Phone +372 620 3365

Service/ Analysis	unit	price, €	notes
Water samples			
Suspended solids	Sample	12	Minimum 10 samples
Turbidity	Sample	6	
Chemical (dichromate) oxygen demand (COD _{Cr}) - colorimetric analysis	Sample	20	Minimum 10 samples
Chemical (dichromate) oxygen demand (COD _{Cr}) - titrimetric analysis	Sample	30	Minimum 10 samples
Chemical (permanganate) oxygen demand (COD _{Mn})	Sample	15	Minimum 10 samples
pH	Sample	6	
Conductivity	Sample	6	
Aqueous dissolved oxygen (O ₂)	Sample	6	
Acidity	Sample	12	Minimum 10 samples
Alkalinity	Sample	12	Minimum 10 samples
Carbonate hardness	Sample	12	Minimum 10 samples
Total hardness (titrimetric analysis)	Sample	12	Minimum 10 samples
Dry residue 105 °C	Sample	12	Minimum 10 samples
Calcination residue 550 °C	Sample	20	Minimum 10 samples
Total organic carbon (TOC)	Sample	36	Minimum 5 samples
Dissolved organic carbon (DOC)	Sample	40	Minimum 5 samples
Total carbon (TC)	Sample	36	Minimum 5 samples
Total nitrogen (TN)	Sample	60	Minimum 5 samples
Ammonium (NH ₄ ⁺) (photometric analysis)	Sample	18	
Iron, divalent (Fe(II)) (photometric analysis)	Sample	18	
Total iron (Fe) (photometric analysis)	Sample	18	
Manganese (Mn) (photometric analysis)	Sample	18	
Phenolic compounds (reagent kit, photometric analysis)	Sample	18	
Ion chromatography (IC)			
Anions (F ⁻ , Cl ⁻ , NO ₃ ⁻ , SO ₄ ²⁻)			
Quantification on an anion in a water sample	Sample	18	Minimum 5 samples
- each subsequent anion in the same water sample		6	
Cations (Li ⁺ , Na ⁺ , NH ₄ ⁺ , K ⁺ , Mg ²⁺ , Ca ²⁺)		18	Minimum 5 samples
- each subsequent cation in the same water sample		6	
Chromatography			
Analysis of a water sample (GC-MS)	Sample	120	From 120 EUR per sample; the cost depends on the target of analysis or the tasks
Analysis of a water sample (HPLC-MS)	Sample	90	From 90 EUR per sample; the cost depends on the target of analysis or the tasks
Solid samples			
Dry matter content	Sample	12	Minimum 10 samples
Ash content	Sample	18	Minimum 10 samples
Organic carbon content	Sample	90	
Extraction + GC/MS analysis	Sample	240	From 240 EUR per sample; the cost depends on the target of analysis or the tasks
Air and gases			
FT-IR analysis of air (at the university premises)	Sample	60	From 60 EUR per sample; the cost depends on the target of analysis or the tasks
Ozone measurement at the site			

Ozone analyser installation/dismounting		150	
Personnel cost	Hour	80	
Return transportation (from the university to the site and back)	km	1,0	Minimum transportation cost 40 EUR
Consultations and training			
Consultation, counselling	Hour	150	Minimum one h

Laboratory of Inorganic Materials

Contact: Andres Trikkel, andres.trikkel@taltech.ee, Phone +372 620 2872

Service/ Analysis	unit	price, €	notes
Thermogravimetric analysis, TG:			At 10 K/min heating rate. Extra charge at low heating rates <5 K/min
Up to 500 °C	Sample	95	
Up to 1000 °C	Sample	120	
Over 1000 °C	Sample	150	
Thermogravimetric analysis with evolved gas analysis TG+MS:			At 10 K/min heating rate. Extra charge at low heating rates <5 K/min
Up to 500 °C	Sample	130	
Up to 1000 °C	Sample	150	
Over 1000 °C	Sample	180	
BET specific surface analysis (N ₂ adsorption)	Sample	60	
BET SSA+pore volume	Sample	90	
Full Isotherm Standard	Sample	150	
Fast Isotherm standard	Sample	100	
Particle size distribution (PSD, laser):			
in Water	Sample	60	
in Ethanol	Sample	75	

Laboratory of Photovoltaic Materials

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Service/ Analysis	unit	price, €	notes
scanning electron microscopy/ energy dispersive spectroscopy (SEM/EDX)	Hour	100	
- sample embedding in a resin, polishing	Sample	50	
- ion milling	Sample	20	
X-ray photoelectron spectroscopy (XPS)	Sample	150	
- Spectrum from the surface + Ar+ bombardment + spectrum from the cleaned surface	min	1	
- Each subsequent Ar+ bombardment	Sample	120	
- each subsequent XPS spectrum	Sample	240-	
- XPS spectrum measurement, spectrum processing and data analysis		300	
Raman micro-spectroscopy			
- with the operator	Hour	100	
- using the device without an operator	Hour	50	
Atomic force microscopy (AFM)	Hour	100	AFM tips are added to the price
UV-Vis spectroscopy	Hour	30	
Photoluminescence spectroscopy	Day	800	

Laboratory for Thin Film Energy Materials

Contact: Ilona Oja Acik, ilona.oja@taltech.ee, Phone +372 620 3369

Service/ Analysis	unit	price, €	notes
X-Ray diffractograms (XRD) measurements	Sample	60	
X-Ray diffractograms (XRD) measurements and analysis	Sample	85	
X-Ray diffractograms (XRD) measurements, analysis and consultations	Sample	100	
UV-VIS spectroscopy. Measurements.	Sample	50	
UV-VIS spectroscopy. Measurements and analysis.	Sample	70	