Advanced Imaging Core Facility (AICF)

Skolkovo Institute of Science and Technology (Skoltech)

APPROVED: Head of AICF

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infrastructure

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Tariffs

For external customers and internal customers with commercial financing Equipment rental cost per 1 hour

Nº p/p	Equipment	Access type	Price ² , RUB without VAT
1	Transmission electron microscope with probecorrector Titan Themis Z	per hour with AICF operator	17 851
2	Scanning electron microscope with low-vaccuum mode	per hour with AICF operator	6 933
	Quattro S SEM	per hour without AICF operator1	4 633
		per day of training course	70 104
3	Dual beam scanning electron microscope	per hour with AICF operator	13 548
	Helios G4 UXe PFIB/SEM	per flour with Alor operator	13 546
4	Dual beam scanning electron microscope	per hour with AICF operator	13 548
	Tescan Solaris	per flour with AICT operator	13 546
5	Pump probe transient absorption/reflection spectroscopy setup	per hour with AICF operator	4 945
6	Time-Correlated single photon spectroscopy setup	per hour with AICF operator	3 795
7	Femtosecond double pulse microcavity dispersion imaging optical setup	per hour with AICF operator	9 545
8	Compact low-temperature electro-optical imaging setup	per hour with AICF operator	4 370
9	Sample preparation equipment	per hour with AICF operator	2 645

Typical services provided by AICF

Nº p/p	Typical services	Used equipment	Unit of measurement, sample	Price ³ , RUB without VAT
1	Particle morphology investigation	Scanning electron microscope with low-vaccuum mode Quattro S SEM	1 sample	9 233
2	Surface morphology investigation of the sample, if	Scanning electron	1 sample	12 699

	necessary, the use of a backscattered electron	microscope with		
	detector	low-vaccuum		
		mode Quattro S		
		SEM		
3		Scanning electron	1 sample	
	Investigation of the elemental assumption of the	microscope with		
	Investigation of the elemental composition of the	low-vaccuum		9 233
	sample (by 5 points)	mode Quattro S		
		SEM		
4		Scanning electron	1 sample	· · · · · · · · · · · · · · · · · · ·
	Investigation of the elemental composition of the	microscope with		
,	sample (mapping of 3 areas)	low-vaccuum		16 166
	sample (mapping of 3 areas)	mode Quattro S		
		SEM		
5		Dual beam	1 sample	
		scanning electron		
	Particle morphology investigation	microscope		15 963
	Farticle morphology investigation	Helios G4 UXe		10 900
		PFIB/SEM/Tesca		
		n Solaris		
6		Dual beam	1 sample	
	Surface marphalagy investigation of the completif	scanning electron		
	Surface morphology investigation of the sample, if	microscope		00.004
	necessary, the use of a backscattered electron	Helios G4 UXe		22 621
	detector	PFIB/SEM/Tesca		
		n Solaris		
7		Dual beam	1 sample	
į		scanning electron		
	Investigation of the elemental composition of the	microscope		04.004
	sample (by 5 points)	Helios G4 UXe		24 921
		PFIB/SEM/Tesca		
		n Solaris		:
8		Dual beam	1 sample	
!		scanning electron		
	Investigation of the elemental composition of the	microscope		45 244
	sample (mapping of 3 areas)	Helios G4 UXe		4 0 244
		PFIB/SEM/Tesca		
		n Solaris		
9		Dual beam	1 sample	
	Investigation of the isotopic composition of the	scanning electron		40 644
	sample (mapping of 3 areas)	microscope		40 044
		Tescan Solaris		
10	Preparation and visualization of cross-section	Dual beam	1 sample	24 921
	Toparation and visualization of Gloss-Section	scanning electron		24 92 1

		microscope	*	
		Helios G4 UXe		
		PFIB/SEM/Tesca		
		n Solaris		
44				
11		Dual beam	1 sample	
		scanning electron		
	Preparation of lamella for TEM investigation	microscope		60 966
	·	Helios G4 UXe		
		PFIB/SEM/Tesca		
		n Solaris		
12		Dual beam	1 sample	
		scanning electron		
	Preparation of lamella for TEM investigation at the	microscope		74 514
	given point in accordance with Customer request	Helios G4 UXe		74 5 14
		PFIB/SEM/Tesca		
		n Solaris		
13		Dual beam	1 sample	
	Investigation of moultileven states to the OTESS	scanning electron		
	Investigation of multilayer structures in the STEM	microscope		
	mode, including investigation of the elemental	Helios G4 UXe		45 244
	composition of the sample (along the line)	PFIB/SEM/Tesca		
		n Solaris		
14		Dual beam	1 sample	
		scanning electron	'	
	Investigation of the crystallographic orientation of the	microscope		Договорная,
	grain structure (EBSD)	Helios G4 UXe		зависит от ТЗ
	,	PFIB/SEM/Tesca		
		n Solaris		44
15		Transmission	1 sample	
		electron		
	Investigation of the morphology of nanoparticles in	microscope with		22 451
	TEM or STEM modes	probecorrector		22 401
		Titan Themis Z		
16		Transmission	1 sample	
.5		electron	i sample	
	Investigation of the grain structure of a sample			44.000
	including determination of dislocation density	microscope with		44 902
		probecorrector		
17		Titan Themis Z	4	
17		Transmission	1 sample	
	Investigation of the crystal structure of a sample	electron		
	using electron diffraction	microscope with		67 354
		probecorrector		
		Titan Themis Z		
18	Visualization of the crystal structure of the sample in	Transmission	1 sample	44 902

	high resolution TEM or STEM	electron		
		microscope with		
	·	probecorrector		
		Titan Themis Z		
19	·	Transmission	1 sample	
	Solution of the original attricture of a comple using	electron		
	Solution of the crystal structure of a sample using	microscope with		177 311
	electron diffraction tomography	probecorrector		
		Titan Themis Z		
20		Transmission	1 sample	
	Investigation of the elemental composition of the	electron		
	sample using energy dispersive X-ray spectroscopy	microscope with		40 302
	(EDX) (mapping of 3 areas)	probecorrector		
		Titan Themis Z		
21	Mapping of the elemental composition of the sample	Transmission	1 sample	
	using energy dispersive x-ray spectroscopy (EDX)	electron		
	with atomic resolution (mapping of 3 areas)	microscope with		58 154
		probecorrector		
		Titan Themis Z		
22	Investigation of the elemental composition of the	Transmission	1 sample	
	sample, including light elements, using electron	electron		
	energy loss spectroscopy (EELS) (spectra	microscope with		44 902
	acquisition at 5 points)	probecorrector		
		Titan Themis Z		
23	Mapping of the elemental composition of the sample,	Transmission	1 sample	
	including light elements, using electron energy loss	electron		
	spectroscopy (EELS) in the STEM mode (mapping of	microscope with		62 754
	3 areas)	probecorrector		
		Titan Themis Z		
24	Visualization of nanoparticles using electron	Transmission	1 sample	
	tomography	electron		
		microscope with		177 311
		probecorrector		
		Titan Themis Z		•
25	Visualization of multilayer structures	Transmission	1 sample	
	(heterostructures) with atomic resolution	electron		
		microscope with		62 754
		probecorrector		
		Titan Themis Z		·
25	IR spectrum measurement spectra acquisition at 5	IR microscope	1 sample	0.705
	points	Bruker Lumos		6 785
L	l,	I	<u> </u>	1

For internal customers⁴

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	Nº	Equipment	A 4	1 .	П
	1412	Equipment	Access type	Price RUB	П
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p/p			without VAT
1	Transmission electron microscope with probecorrector	per hour with AICF operator	4 718
	Titan Themis Z	per hour without AICF operator ¹	3 568
2	Scanning electron microscope with low-vaccuum mode	per hour with AICF operator	1 836
	Quattro S SEM	per hour without AICF operator ¹	686
	Quality of OLIF	per day of training course	5 493
3	Dual beam scanning electron microscope	per hour with AICF operator	3 416
	Helios G4 UXe PFIB/SEM	per hour without AICF operator1	2 266
	1101100 0 1 03/0 1 1 13/0 2 111	per day of training course	27 328
4	Dual beam scanning electron microscope	per hour with AICF operator	3 416
	Tescan Solaris	per hour without AICF operator¹ per day of training course	2 266
			27 328
5	Pump probe transient absorption/reflection spectroscopy setup	per hour with AICF operator	2 645
6	Time-Correlated single photon spectroscopy setup	per hour with AICF operator	1 495
7	Femtosecond double pulse microcavity dispersion imaging optical setup	per hour with AICF operator	7 245
8	Compact low-temperature electro-optical imaging setup	per hour with AICF operator	2 070
9	IR microscope Bruker Lumos	per hour with AICF operator	1 836
10	Sample preparation equipment	per hour with AICF operator / without AICF operator	645

Prices are indicated for equipment rent only; interpretation of results and preparation of reports are charged separately.

Duration and contents of the training are determined based on the trainee's level.

¹ Access granted only after completing a corresponding training course

² The cost is indicated without taking into account the sample preparation

³ Internal customers with external (commercial financing), as well as participants of the Skolkovo project, are provided with an additional discount of 20% of the specified tariff. Services rendered with the help of Titan Themis Z equipment to the Skolkovo project participants are calculated at an individual rate (upon request)

⁴ Including research projects of Skoltech employees, which are funded from a grant from the Skolkovo Foundation, grants from the Russian Science Foundation, RFBR, Ministry of Education and Science, Skoltech startups. The tariff is applied subject to the provision of supporting documents, otherwise the tariff "For external clients and internal clients with commercial financing" is applied