User Agreement for Open Facilities of the National Institute of Advanced Industrial Science and Technology

The official text of this document is the Japanese version. As the English translation is provided only for reference, if there are any discrepancies between Japanese and English versions, the Japanese takes precedence.

（各規則等の正文は日本語であり，英語訳は参考として提供するものです。日本語と英語訳の内容に齟齬がある場合は，日本語の規則等が優先します。）

Established December 1, 2013
Last revision July 1, 2017

Article 1 (Scope of Application)

This Agreement shall be applicable to the case of using research facilities, research equipment and research devices which are owned by the National Institute of Advanced Industrial Science and Technology ("AIST"), and listed in Schedule 1 (the "Open Facilities") in accordance with Rules on Use of Open Facilities of The National Institute of Advanced Industrial Science and Technology (25-Kitei No. 60; the "Open Facilities Use Rules").

Article 2. (Definitions)

1. The term "use" as used in this Agreement shall mean the use as set forth in Article 2, Paragraph 1 of the Open Facilities Use Rules.

2. The term "user" as used in this Agreement shall mean the recipient of notification under Article 3, Paragraph 2.

3. The term "Officer or Employee" as used in this Agreement shall mean the persons as set forth in Article 2, Paragraph 2 of the Open Facilities Use Rules.

4. The term "Intellectual Property Rights" as used in this Agreement shall mean the rights as set forth in Article 2, Paragraph 3 of the Open Facilities Use Rules.

5. The term "Confidential Information" as used in this Agreement shall mean the information as set forth in Article 2, Paragraph 4 of the Open Facilities Use Rules.

6. The term "Invention" as used in this Agreement shall mean the use as set forth in Article 2, Paragraph 5 of the Open Facilities Use Rules.

Article 3 (Procedures for Use)

1. A person who desires to use the Open Facilities must conclude prior consultation with the

facility manager (the "Facility Manager") of the relevant Open Facilities at AIST and submit an Open Facilities Use Application Form (Attached Form No. 1; the "Application Form") to the Tsukuba Innovation Arena Headquarters of AIST.

2. AIST shall, when the requirements listed in the following items are recognized as having been completely satisfied, notify the User of permission for use by the Open Facilities Use Response (Attached Form No. 2; the "Response"). This notification shall cause an agreement on use of Open Facilities to be established in accordance with this Agreement between AIST and the User.

(1) The use applicant desires to use the Open Facilities.

(2) There is no risk of the use harming the public welfare or the betterment of the public or national interest.

(3) There is no risk of the use interfering in the research work of AIST.

(4) The use applicant is capable of paying the Use Fees under Article 6.

(5) There is no risk of the use applicant violating the matters for observance under Article 8.

(6) The use applicant is capable of assuming the indemnification obligation prescribed in Article 12 and the product liability prescribed in Article 14, and the like.

(7) There is no other particular reason, other than as prescribed in the above respective items, why the use of the Open Facilities should be recognized as unreasonable.

3. AIST may hear the views of a third party as to whether the requirements in the respective items of the preceding paragraph have been satisfied.

4. In the event that any of the requirements in the respective items of Paragraph 2 are not satisfied, AIST may notify of non-acceptance with the Response.

Article 4 (Revocation or Suspension of Use Permission and Public Announcement of that Fact)

1. If any of the requirements in the respective items of Paragraph 2 of the preceding article comes not to be satisfied, or in the event any one of Item 1 through Item 6, and Item 8 of Article 8 is violated, AIST may revoke the use permission as set forth in Paragraph 2 of the preceding article or order the suspension of the use by the User.

2. Notwithstanding the provision of the preceding paragraph, if AIST recognizes an administrative need, AIST may order the revocation or suspension of the use permission stipulated in Paragraph 2 of the preceding Article.

3. If the use permission is revoked or suspension of use is ordered under the provision of Paragraph 1, AIST may give public notice of such fact.

4. The Use Agreement for the Open Facilities shall be terminated due to the revocation of the use permission or order for suspension of use under the provisions of Paragraph 1 or Paragraph 2.

Article 5 (Provision of services, technical guidance and technical proxy services)

1. AIST may, when the User so desires, through consultation between the User and the Facility Manager, offer services to the User relating to operation or control, etc. of the Open Facilities.

2. AIST may, when the User so desires, through consultation between the User and the Facility Manager, offer technical guidance to the User in relation to methods of operation or control of the Open Facilities, methods of preparation of test samples, etc., and methods of analysis of test data, etc.

3. AIST may, when the User so desires, through consultation between the User and the Facility Manager, perform technical proxy services with respect to observation, assay, analysis, fabrication, test sample preparation, etc. for the User.

4. The User shall, in the case where the User needs to receive disclosure of Intellectual Property Rights registered with AIST or the licensing thereof in use, execute with AIST a separate agreement with regard to the relevant disclosure or licensing.

Article 6 (Use Fees)

1. The User shall pay the total amount of the following respective items plus the amount of consumption tax and local consumption tax by the prescribed date; provided, however, that with respect to use fees, etc. for registered equipment of the "Nanotechnology Platform" commissioned by the Ministry of Education, Culture, Sports, Science and Technology, operating personnel expenses and indirect costs shall not be included.

(1) Open facility equipment fee

(2) Operating personnel expenses (contribution to expenses relating to Paragraph 1 of the

preceding article)

(3) Technical guidance personnel expenses (contribution to expenses relating to Paragraph 2 of the preceding article)

(4) Technical proxy personnel expenses (contribution to expenses relating to Paragraph 3 of the preceding article)

(5) Additional expenses

(6) Indirect expenses

2. AIST shall set the lower unit prices for the usage fee etc. than the normal prices, in the case that the user uses open facilities for the project commissioned by the Ministry of Education, Culture, Sports, Science and Technology (MEXT)..

3. In the case where it is decided not to publish the results by the proviso of Article 15, Paragraph 1, the user shall pay both the amount calculated by normal unit price, deducting from lower unit price under the provisions of Paragraph 2 and the administrative expenses calculated from the normal unit price by the day designated by AIST.

4. The method of calculating usage fees etc. in Paragraphs 1 and 2 shall be specified in Appended Table 2 for each Open Facility.

5. In the case where AIST permits use by the User within AIST, AIST may, in addition to the expenses in the preceding two paragraphs, collect per capita expenses as provided in Schedule 3 to Collaborative Research Expenses Calculation Guidelines (19-Yoryo No. 15).

Article 7 (Refund of Use Fees, etc.)

AIST shall not refund use fees, etc. that have been paid by the User; provided, however, that in the case where any of the following items is applicable, depending on the use period, the relevant use fees shall be refunded in whole or in part.

(1) Where use of the Open Facilities becomes impossible due to unavoidable circumstances such as breakdown of the Open Facilities not attributable to the User or natural disaster.

(2) Where AIST revokes the use permission or orders suspension of use pursuant to the provisions of Article 4.

(3) Where the use fee payment method is the pre-payment and adjustment method, and in the case where the use period is shorter than the projected period of use listed on the Response, and when AIST judges it necessary to refund the use fee.

Article 8 (Observance)

The User shall observe the following matters:

(1) Matters listed in this Agreement and in the Response

(2) Matters instructed by the Facility Manager and matters that should be observed in use determined for each of the Open Facilities

(3) Non-engagement in acts that could be the cause of danger

(4) Non-engagement in acts in violation of the laws of Japan

(5) Non-engagement in acts that would damage the Open Facilities

(6) Non-engagement in acts that would interfere in the execution of the operations of AIST.

(7) Restoration of the Open Facilities at the time of completion of use to the status quo of before the start of use.

(8) Other matters determined by AIST.

Article 9 (Handling of Confidential Information, etc.)

1. AIST and the User shall, with respect to Confidential Information disclosed by the opposite party, strictly preserve confidentiality and shall not divulge such information to a third party without written consent from the opposite party.

2. AIST and the User shall, with respect to the management of the Confidential Information, appoint a person to be in charge and strictly manage such information.

3. AIST and the User shall disclose the Confidential Information only to persons who are Officers or Employees of AIST or employees of the User who are involved in use of the Open Facilities, and shall explicitly specify the fact that the Confidential Information is a matter involving confidentiality that must be preserved in disclosure, and the relevant Officers or Employees of AIST or employees of the User shall be liable for the same obligations as those to

which AIST and the Users are liable in accordance with Open Facilities Use Rules and this Agreement.

4. If the User creates an Invention with Confidential Information that has been disclosed by AIST or an Invention that includes Confidential Information that has been disclosed by AIST, the User shall promptly notify AIST to that effect, and AIST and the User shall hold consultations on the handling of the relevant Invention.

5. Confidential Information disclosed by the User to AIST shall be retained only to the minimum necessary extent in light of the purpose of use of the Open Facilities.

6. The User may not use wiretapping, video surveillance, reverse engineering or other improper means to access the technical information of AIST or other third party Users

Article 10 (Attribution of Results)

1. Intellectual Property Rights obtained by the User through the use, in principle, shall belong to the User; provided, however, that in the case where the User has received technical guidance under Article 5, Paragraph 2 or technical proxy services under Paragraph 3 of the same article, or where said Intellectual Property Rights are related to the Facilities or methods of operation or control, etc. thereof, which AIST has furnished in advance, AIST and the User shall hold consultations.

2. In the case where, through consultations between AIST and the User as referred to in the preceding paragraph, the Intellectual Property Rights obtained through the use come to belong to AIST, in whole or in part, the handling thereof shall be specified under a separate agreement.

3. Notwithstanding the proviso of Paragraph 1, in the case where the User uses the Open Facilities and creates a new tangible object, excluding the case where materials or samples of AIST are used in the relevant tangible object, the relevant tangible object shall belong to the User.

4. In the case where the User creates an Invention through the use that will be the target of consultations under Paragraph 1, the User shall notify AIST.

Article 11 (Immunity)

1. AIST shall accept no legal responsibility whatsoever for losses incurred by the User or third parties arising out of accidents and events, etc. caused by or accompanying use of the Open Facilities, and shall pay no loss compensation or damages; provided, however, that this shall

not apply where AIST was the cause of the relevant accident and event, etc. intentionally.

2. AIST shall bear no legal responsibility whatsoever, including liability for damages, with respect to losses incurred by the User and third parties arising due to failure, malfunction and defect and the like of the Open Facilities.

3. AIST shall bear no legal responsibility whatsoever, including liability for damages, for losses incurred by the User or third parties arising out of or in relation to revocation of use permission or order for suspension of use as prescribed under Article 4, Paragraph 1 and Paragraph 2.

4. AIST shall bear no legal responsibility whatsoever, including liability for damages, for loss or damage relating to test samples, etc. brought in by the User, except for in cases due to willful act or gross negligence by AIST.

5. In the case where a claim is filed as the rights of a third party are infringed by the act of use by the User, the results created through the use, or act of manufacturing and sale, etc. by the User using the relevant results, the User shall resolve such dispute at its own expense and responsibility, and AIST shall bear no legal responsibility whatsoever, including liability for damages.

6. In the case where AIST assumes liability, the extent thereof shall be limited to direct and ordinary losses and shall not include lost earnings or special or indirect losses.

Article 12 (Compensation Obligation)

1. If the User, through willful act or act in violation of the matters for observance in Article 8, causes AIST a loss such as damage to the Open Facilities, AIST may claim compensation for losses from the User as well as the employees thereof.

2. In the case where a claim is filed by a third party due to suffering a loss arising out of or in relating to the act of use of the Open Facilities by the User, the User shall bear the loss and costs incurred by AIST due to the relevant claim.

3. The provisions of the preceding paragraph shall apply mutatis mutandis to the case where a claim is filed by a third party against AIST for an act of use by the User or results created through the use, or where an act of manufacturing and sale, etc. by the User using the relevant results under Paragraph 5 of the preceding article infringes the rights of the third party.

Article 13. (Effective Term of User Agreement)

This User Agreement shall remain in effect even after the expiration of the use period specified on the Response; provided, however, that, of this Agreement, the provisions of Article 4, Paragraph 3 shall remain in effect for one (1) year from the expiration of the use period and the provisions of Article 9 shall remain in effect for five (5) years from the expiration of the use period.

Article 14 (Product liability, etc.)

1. AIST and the User affirm that, with respect to manufacturing using the Open Facilities, the User shall assume sole liability as manufacturer.

2. AIST shall accept no legal responsibility whatsoever, including product liability, with respect to manufactured items as well as methods of manufacturing through use of the Open Facilities.

3. The provisions of Article 12, Paragraph 2 shall apply mutatis mutandis to the case where a claim is filed by a third party against AIST as to AIST having product liability for items manufactured through the use of the Open Facilities.

Article 15 (Publication and reporting of results based on work on consignment from the national government)

1. In the case where use by the User has been permitted under Article 3, Paragraph 2 subject to the publication of the results based on the Nanotechnology Platform Project and Research Infrastructure Network Development Project for Construction of Low-Carbon Society of the Ministry of Education, Culture, Sports, Science and Technology, AIST and the User must publish the results following the completion of use of the Open Facilities; provided, however, that in the case where, owing to the fact that the results contain some portion that will interfere in operations if made public, the User requests non-publication of the relevant portion, and there is recognized to be a justifiable reason not to publish it, it is possible for all or part of the relevant part not to be published.

2. In the case prescribed in the main clause of the preceding paragraph, the User must submit a utilization report within one (1) month after the end of the fiscal year in which the User used the Open Facilities. However, when AIST recognizes a justifiable reason for non-submission of a utilization report, at the request of the User, submission may be omitted.

3. In the case prescribed in the main clause of Paragraph 1, the user shall not perform the acts of fabrication, falsification, plagiarism, inappropriate authorship, and duplicate submission on the research products obtained by use of the Open Facilities.

Article 16 (Unauthorized Use)

1. The User may not use the Open Facilities beyond the use period specified in the Response.

2. In the case where the User, without obtaining the agreement of AIST in writing, uses the Open Facilities for a period of time outside the use period specified in the Response, the User shall pay to AIST, as a penalty for use, moneys equivalent to double the use fees, etc. (excluding Item 2 through Item 5 of Paragraph 1 of Article 6) pertaining the relevant period

Article 17 (Governing Law)

This User Agreement shall be governed by and construed in accordance with the laws of Japan

Article 18 (Jurisdiction)

Any dispute between the User and AIST with respect to the User Agreement shall be subject to the exclusive jurisdiction of Tokyo District Court as court of first instance.

Article 19 (Other)

Any doubt arising with respect to this Agreement, and any matter not described in this Agreement or arrangements hereunder shall be subject to consultations between AIST and the User in good faith on each occasion.

Supplementary Provisions
This Agreement will come into effect from December 1, 2013.

Supplementary Provisions (Partial revision)
This Agreement will come into effect from July 1, 2017.

Schedule 1

The Open Facilities

1. Super Clean Room Facility (SCR)

Equipment ID(*1)	Equipment name
L01-104 L01-103	Resist coater/developer (CLEAN TRACK LITHIUS) ArF immersion lithography (NSRS610C)
M01-08 M01-10	Resist coater/developer (ACT12) KrF stepper (FPA-5000ES3)
B03-07	Plasma CVD (EAGLE-12)
M03-06	Plasma CVD (EAGLE-12 Rapidfire)
B03-06	Plasma CVD (VECTOR)
M03-01	HDP-CVD (Concept 3 Speed)
P03-101	HDP-CVD (MAPLE)
M03-14	High-k ALD (Trias-ALD)
M06-04	Metal CVD (Trias-W)
F03-07	SiN LP-CVD (TELFORMULA)
M03-03	SiO2 (TEOS) LP-CVD (TELFORMULA)
M03-09	Poly-Si/a-Si LP-CVD (TELFORMULA)
P03-103	Doped-Si LP-CVD (DJ1226V-DF)
B06-101	Metal sputter (Endura2 EnCoReII Ta/Cu)
F06-101	Sputter (iarim C-7100GT)
M06-03	Metal sputter (COSMOS I-1201)
M06-07	Metal sputter (ENTRON W-300)
B06-102	Cu plating (SABRE NExT)
M02-04	Poly-Si etcher (Centura eMAX/DPSII)
M02-05	Metal etcher (Centura DPSII/ASPII)
B02-101	Low-k/metal etcher (Centura Enabler/DPS232/Axiom)
M02-01	SiO2 etcher (Telius SCCM-Ox/DRM-Ox)
M02-10	SiO2 etcher (Telius DRM-Ox/SCCM-Poly)
B02-01	Low-k etcher (Telius SCCM-Ox)

F02-101	Plasma etcher (U-8150)
M02-06	Asher (Surpass 320)
B02-03	Asher (ICE300/RPA300)
M02-07	Asher (μASH300)
P02-105	Asher (ICE300/μASH300)
M05-03	High energy ion implantation (EXCEED2300V)
F05-101	Low energy ion implantation (SHX)
M03-101	RTA/RTP system (Radiance)
M04-02	Gate RTO/RTP system (Trias SPA300)
B04-01	Vertical annealing furnace (VF-5700B)
M04-101	Vertical oxidation furnace (ALPHA-303i-K)
M07-15	Batch cleaning (UW300Z)
M07-07	SiO2 wet etching system (VENUS)
P07-104	SiN wet etching system (SFAW-1201-008)
M07-05	Spray batch cleaning (ZETA300 BE)
M07-02	Wafer cleaning (AQUASPIN MP-3000)
M07-101	Wafer cleaning (AQUASPIN SU-3000)
M07-102	Wafer cleaning (AQUASPIN SU-3000)
M07-13	Spin etching system (SEZ323)
P07-103	Wafer cleaning (SRWC-12801-8P-2C)
M07-09	Wafer cleaning (AQUASPIN SS-3000)
M07-12	Wafer cleaning (AQUASPIN SS-3000)
N07-101	CMP for STI, W (ChaMP-332M A-FP-3000M)
B07-101	Cu CMP (ChaMP-332M A-FP-3000M)
AF03-16	Vacuum evapolator (VX-30-S)
E12-101	Bevel polisher (SFF-200)
M04-08	Lamp annealing system (VHC-P616CP-S)
M08-55	Alignment accuracy measurement (Archer10-AIM)
M08-07	Ellipsometry film thickness measurement (ASET-F5)
M08-101	Ellipsometry film thickness measurement (ASET-F5X)
P08-108	Ellipsometry film thickness measurement (μSE-2500-A)
AF08-12	Ellipsometry film thickness measurement (MARY-102SM)
P08-104	Reflective film thickness measurement (F50-EXR)
B08-04	X-ray fluorescent thickness measurement (PW2820)
M12-08	X-ray fluorescent thickness measurement (System 3272E)
F08-04	X-ray diffraction measurement (TTR In-plane XRD)
B12-101	Film stress measurement (128LC2C)
M08-12	Film stress measurement (128L)

M08-17	Particle inspection (SP1-TBI)
AF08-01	Particle inspection (LS6600)
B08-08	Particle inspection (WM-3000FOUP)
P08-105	Particle inspection (WM-10)
P08-106	Particle inspection (WM-10)
M08-05	Total-refl. X-ray fluorescence spectrometer (TREX612)
M08-52	Vapor phase decomposition (TVD-900)
P08-107	Total-refl. X-ray fluorescence spectrometer (TXRF 310Fab)
P08-109	Vapor phase decomposition (Expert)
AF08-18	Total-refl. X-ray fluorescence spectrometer (TXRF 300)
M08-10	Resistivity measurement (RS-100)
M08-25	Resistivity measurement (VR-120/08)
M08-32	Resistivity measurement (VR-120/08S)
P08-102	Resistivity measurement (VR300DSE)
I08-110	Critical dimension SEM (CG5000)
P08-101	Critical dimension SEM (S-9380 II)
P08-103	Critical dimension SEM (S-9380 II)
M08-41	Review SEM (SEMVision G2)
M08-40	Optical microscope (AL3110F)
M08-50	Optical microscope (AL3110F)
M12-101	Optical microscope (AL110)
M12-102	Optical microscope (AL120)
J04-106	Helium ion microscope (ORION Plus)
B08-02-01	FIB (FB2100)
AF08-402	STEM (HD-2700)
B08-02	STEM (HD-2000)
J03-117	SEM (S-4700)
M08-04	SEM (S-5000)
B08-12	SEM (S-5200)
AF08-14	X-ray photoelectron spectroscopy (ESCA-1800)
B10-06	IR-OBIRCH failure analyzer (μAMOS)
J03-116	Thermal desorption spectroscopy (WA1000S/W)
J03-114	FTIR analyzer (Excalibur FTS-3000)
B10-03	Fully automated prober (P-12XL)
B10-01	Parametric tester (4073A)
J03-118	Fully automated prober (P-12XL) Parametric tester (4073B/N9201A)

M08-42 M10-01	Fully automated prober (P-12XL) Parametric tester (4073A)
M10-05	Fully automated prober (P-12XL) Parametric tester (4076)
F10-01	Semi-automatic prober (S300-861) Parameter analyzer (4156C/4284A/4294A)
M10-04 M08-47	Semi-automatic prober (S300-561) Parameter analyzer (4156C/4284A/4294A)
B10-04 B10-05	Manual prober (Model 9920A) Parameter analyzer (4156B/4284A)
J03-115	Hg prober (SSM 5130)
B08-06	Hg prober (CVmap 3092A)
SIM-01	Lithography simulator (PROLITH)
L01-101 M01-04 L09-103 I03-101 I08-101	EUV high-NA small-field exposure tool (HSFET) EUV resist coater/developer (CLEAN TRACK ACT 12) EUV light source (UXE-500-IF) EUV manual developer (Litho Spin Cup 300D) Ellipsometric film thichness measurement (M-2000X)
AH08-107	EUV frame exposure system (EUVES-7000GC)
L08-103	Critical dimension SEM (CG4000)

*1 These numbers are used for equipment management in SCR.

2. AIST Nanocharacterization Facility (ANCF)

Equipment ID(*1)	Equipment name
ANCF001	Positron probe microanalyzer (PPMA)
ANCF002	X-ray absorption fine structure spectroscopy with a superconducting fluorescence detector (SC-XAFS)
ANCF003	Nanosecond visible/near-infrared fluorescence spectrometer (VITA) (2-10-1112)
ANCF004	Nanosecond visible/near-infrared transient absorption spectrometer (VITA) (2-10-033)
ANCF005	Picosecond visible/near-infrared fluorescence spectrometer (VITA) (2-10-033)
ANCF006	Picosecond visible/near-infrared transient absorption spectrometer (VITA) (2-10-033)
ANCF007	Real surface probe microscope (RSPM) 1 (2-1D-125)

ANCF008	Real surface probe microscope (RSPM)2 (2-1D-124)
ANCF009	Solid-state nuclear magnetic resonance spectrometer (SSNMR) (600MHz) (5-3-1203)
ANCF010	Solid-state nuclear magnetic resonance spectrometer (SSNMR) (200MHz) (5-3-1205)
ANCF011	Solid-state nuclear magnetic resonance spectrometer (SSNMR) (20MHz) (5-3-1205)
ANCF014	Extreme ultraviolet excited photoelectron spectroscopy (EUPS)
ANCF015	Scanning electron microscope with a superconducting tunnel junction X-ray detector (SC-SEM)

*1 These numbers are used for equipment management in ANCF.

3. Clean Room for Analog & digital superconductivity (CRAVITY)

Equipment ID(*1)	Equipment name
CRAVITY001	I-Line Stepper
CRAVITY002	Coat/develop system
CRAVITY003	Semi auto developer
CRAVITY004	Single Wafer Cleaner
CRAVITY005	Wafer processor A
CRAVITY006	Wafer processor B
CRAVITY007	Sputter for Nab/Al Josephson junction [Ozone oxidization and mass spectrometer]
CRAVITY008	Sputter for Nb/Al Josephson junction [Standard type]
CRAVITY009	NbN sputter
CRAVITY010	Multi targets (6 targets) sputter
CRAVITY011	SiO_2 sputter
CRAVITY012	TEOS-CVD
CRAVITY013	CCP-RIE: Samco-I
CRAVITY014	CCP-RIE: Samco-II
CRAVITY015	CCP-RIE: Samco-III
CRAVITY016	CCP-RIE: Ulvac
CRAVITY017	ICP-RIE: Ulvac
CRAVITY018	Asher

CRAVITY019	Ion milling
CRAVITY020	RTA
CRAVITY021	Auto prober
CRAVITY022	Manual prober
CRAVITY023	Sheet resistance measuring instrument
CRAVITY024	Laser microscope combined with SPM
CRAVITY025	Laser microscope
CRAVITY026	Surface profiler
CRAVITY027	CMP1
CRAVITY028	CMP2
CRAVITY029	Dicing machine

*1 These numbers are used for equipment management in CRAVITY.

4. Nano-Processing Facility (NPF)

Equipment ID(*1)	Equipment name
NPF001	Electron Beam Lithography System (CRESTEC)
NPF003	Ion Coater (SEM)
NPF004	Field Emission SEM (HITACHI_S-4800)
NPF005	Low Vacuum SEM (HITACHI)
NPF006	Maskless Lithography System
NPF008	Spin-coater
NPF009	Contact Mask Aligner (MJB4)
NPF010	Mask Aligner
NPF011	i-line Stepper
NPF012	Draft Chamber (Right)
NPF013	Draft Chamber (Left)
NPF014	Draft Chamber (Organic Solvent)
NPF015	Draft Chamber (Acid and Alkaline Solvent)
NPF016	Stirrer Water Bath (SWB-10L-1)
NPF017	Smart Water Bath (TB-1N)
NPF018	Reactive Ion Etching System (RIE)
NPF019	ICP Reactive Ion Etching System (ICP-RIE)

NPF021	Plasma Asher
NPF022	UV Ozone Cleaner
NPF023	Electron Beam Vacuum Evaporator
NPF024	Resistance Heating Vacuum Evaporator
NPF025	Sputtering System (Shibaura)
NPF026	RF-DC Sputtering System (ULVAC)
NPF027	ECR Sputtering System
NPF028	Multiple Target Sputtering System
NPF029	Electroplating Equipment
NPF030	Plasma-assisted CVD (TEOS_SiO2)
NPF031	Atomic Layer Deposition (FlexAL)
NPF032	Cross Section Polisher (ALD)
NPF033	Argon-Ion Milling System
NPF034	Focused Ion Beam System (FIB)
NPF035	Ion Coater (FIB)
NPF036	Focused Ion Beam System and Scanning Electron Microscope (FIB-SEM)
NPF038	Secondary Ion Mass Spectroscope (D-SIMS)
NPF039	Ozone Cleaner (SIMS)
NPF040	Rapid Thermal Annealing Furnace (RTA)
NPF041	Oxidation Furnace
NPF042	Clean Oven (Right)
NPF043	Clean Oven (Left)
NPF044	Muffle Furnace
NPF045	Contact Profiler
NPF046	Scanning Probe Microscope 1 (SPM1, NanoscopeIV_Dimension3100)
NPF047	Scanning Probe Microscope 2 (SPM2, SPM-9600_9700)
NPF048	Scanning Probe Microscope 3 (SPM3, SFT-3500, Nano Search Microscope)
NPF049	Nano Prober (N-6000SS)
NPF050	Four Point Probe Resistance Measurement System
NPF051	Semiconductor Device Parameter Analyzer
NPF052	Capacitance-Voltage (C-V)　Analyzer

NPF053	Wire Bonder
NPF054	Dicing Saw
NPF055	Scriber
NPF056	Mechanical Polisher
NPF057	Lapping Machine
NPF058	Wafer Bonder
NPF059	Laser Microscope (VK-8510)
NPF060	Laser Microscope (VK-9700)
NPF061	Laser Microscope (OLS-4100)
NPF062	Confocal Laser Microscope
NPF063	Spectroscopic Ellipsometer
NPF064	PC (Ellipsometer)
NPF065	Laser Raman Spectrometer (RAMAN)
NPF066	Fourier Transform Infrared Spectrometer (FT-IR)
NPF067	PC (SPM, FT-IR, RAMAN and CAD)
NPF068	Magnetic Property Measurement System (MPMS)
NPF070	X-ray Diffractometer (XRD)
NPF071	Thin Film X-ray Diffractometer (ATX-G, Rigaku)
NPF072	Microscopic X-ray Fluorescence Analyzer (XRF)
NPF073	PC (XRD and CAD)
NPF074	X-ray Photoelectron Spectroscopy Analysis System (XPS)
NPF075	PC (XPS)
NPF076	PC for General Analysis 1
NPF077	PC for General Analysis 2
NPF078	PC for General Analysis 3
NPF079	PC for General Analysis 4
NPF080	Helium Ion Microscope
NPF081	Plasma-assisted CVD (SiN)
NPF082	ICP-RIE (Compound Semiconductors)
NPF083	Multipurpose Oven
NPF084	Digital Microscope
NPF085	Physical Property Measurement System (PPMS)
NPF086	Manual Wafer Prober (2F)
NPF087	Wire Bonder (2F)

NPF088	Field Emission SEM (HITACHI_S-4500) (2F)
NPF089	RTA (Diffusion Furnace)
NPF090	Laser Beam Machine
NPF091	Auto Spin-coater and Developer
NPF092	High Pressure Jet Lift-off Equipment
NPF093	Electron Beam Lithography System (Elionics)
NPF094	PC (PEC and CAD)

*1 These numbers are used for equipment management in NPF.

5. Battery Research Platform (BRP)

Equipment ID(*1)	Equipment name
BRP-01	Micro X-ray CT Scanner for Battery Development (TOSCANER-34500FD)
BRP-02	Laser Raman Microscope imaging for Battery Development (NanoPhoton RAMANtouch VIS-NIR-LT)
BRP-03	Isothermal and temperature scanning calorimeter for Battery Development (Setaram C600)
BRP-04	Thermal Analysis Equipment for Battery Development (Shimazu, DTG-60、TMA-60、DSC-60plus)

*1 These numbers are used for equipment management in BRP.

6. MEMS (MEMS)

Equipment ID(*1)	Equipment name
MEMS001	Wafer batch cleaning
MEMS002	Wafer spin cleaning
MEMS003	Draft chamber (Organic)
MEMS004	Anisotropic Si etching
MEMS005	IPA vapor drier
MEMS006	i-line stepper
MEMS007	Mask aligner

MEMS008	Mask-less lithography
MEMS009	Spin coater/ developer
MEMS010	Optical microscope
MEMS011	SiO_2 Plasma CVD
MEMS012	Sputter deposition
MEMS013	Oxidation furnace
MEMS014	Annealing furnace
MEMS015	SiN LPCVD
MEMS016	Poly-Si LPCVD
MEMS017	Metal RIE
MEMS018	SiO_2 RIE
MEMS019	200mm Si Deep-RIE
MEMS020	300mm Si Deep-RIE
MEMS021	SiO_2 sacrificial dry etching
MEMS022	Asher
MEMS023	Optical inspection microscope
MEMS024	Surface profiler
MEMS025	Ellipsometer
MEMS026	Optical film thickness measurement
MEMS027	Wafer particle counter
MEMS028	WYKO optical surface profiler
MEMS029	Sheet resistance measurement
MEMS030	IR laser microscope
MEMS031	Laser microscope
MEMS032	Blade dicing
MEMS033	Laser stealth dicing
MEMS034	Optical microscope
MEMS035	Large-area nanoimprint
MEMS036	Vacuum evaporation
MEMS037	Annealing/sintering furnace
MEMS038	Chip-to-wafer bonder
MEMS039	Wafer-to-wafer bonder
MEMS040	Self-assembled monolayer deposition
MEMS041	DUV surface treatment

MEMS042	Room temperature wafer bonder
MEMS043	CD-SEM
MEMS044	Analytical SEM
MEMS045	Scanning acoustic microscope
MEMS046	IR microscope
MEMS047	Film stress measurement
MEMS048	X-ray CT
MEMS049	Tester/ Prober
MEMS050	Optical microscope
MEMS051	Piezo-electric constant measurement
MEMS052	Glass nanoimprint
MEMS053	EB lithography
MEMS054	Large-area coater/ developer
MEMS055	Photoresist spray coater
MEMS056	RIE
MEMS057	TXRF

*1 These numbers are used for equipment management in MEMS.

7. BIO (BIO)

Equipment ID(*1)	Equipment name
BIO-001	Glycan profiling system
BIO-002	Robotic system to analyze interaction with plant transcription factors

*1 These numbers are used for equipment management in BIO.

Schedule 2
Concerning fee calculation methods

The calculation methods under Article 6, Paragraph 2 shall be as follows.

1. SCR and CRAVITY (in the case of using a process that uses standard recipes)

1) Open facility equipment fee (Article 6, Paragraph 1, Item 1):

An amount obtained by multiplying the unit price of the open facility equipment fee prescribed in (1) of the following table by the product of the number of wafers used and the number of processes.

2) Operating personnel expenses (Article 6, Paragraph. 1, Item 2):

In the case of receiving provision of services from workers, etc. of AIST, such as operation and control of the relevant equipment, an amount obtained by multiplying the unit price of operating personnel expenses prescribed in (2) of the following table by the product of the number of wafers used and the number of processes.
3) Technical guidance, etc. personnel expenses (Article 6 Paragraph. 1, Item 3 and Item 4):

In the case of receiving technical guidance from workers, etc. of AIST on methods of operation and control, test sample preparation methods and analysis methods of data, etc., or in the case of receiving technical proxy services relating to observation, assay, analysis, fabrication and sample preparation, etc., an amount obtained by multiplying the unit price of technical guidance personnel expenses in (3) of the following table by time on task.
4) Additional expenses (Article 6, Paragraph 1, Item 5):

In the case where the Open Facilities require remodeling, an amount prescribed below:
Remodeling fee: Amount of cost necessary for remodeling of the Open Facilities, calculated by tallying the actual cost equivalent amount in accordance with the specific details of remodeling work.
Restoration fee: Amount of cost necessary for restoration to the status quo of Open Facilities that have been remodeled or modified, calculated by tallying the actual cost equivalent amount in accordance with the specific details of restoration construction.
5) Indirect expenses (Article6, Paragraph 1, Item 6)

Amount obtained by multiplying the amount as referred to in 1) to 4) above by 15%.

(1) Open facility equipment fee (tax-exclusive)

(a) Open facility equipment fee unit price	(b) Number of wafers used × Number of processes	(a) × (b) Open facility equipment fee
yen	wafer processes	yen

(2) Operating personnel expenses (tax-exclusive)

(c) Operating personnel expenses unit price	(d) Number of wafer used × Number of processes	(c) × (d) Operating personnel expenses
yen	wafer processes	yen

(3) Technical guidance, etc. personnel expenses (tax-exclusive)

(e) Technical guidance etc. personnel expenses unit price	(f) Time on task	(e) × (f) Technical guidance etc. personnel expenses
yen	hours	yen

The amounts in (1), (2) and (3) are without consumption tax, etc.

Unit prices for (a), (c), and (e) are determined for each facility and are revised each year.

In the case where use becomes impossible, or when use is suspended, the open facility equipment fees as well as operating personnel expenses relating to wafers in works-in-progress shall be an amount equivalent to the time used up to the process in progress.

In some cases, use fees, etc. may be adjusted taking into consideration the scale of the User, etc.

2. SCR, ANCF and CRAVITY (in the case of using a process that requires tuning), NPF, BRP, and MEMS

1) Open facility equipment fee (Article 6, Paragraph 1, Item 1):

An amount obtained by multiplying the unit price of the open facility equipment fee per hour prescribed in (1) of the following table by the number of hours of use.

2) Operating personnel expenses (Article 6, Paragraph. 1, Item 2):

In the case of receiving provision of services from workers, etc. of AIST, such as operation and control of the relevant equipment, an amount obtained by multiplying the unit price of operating personnel expenses prescribed in (2) of the following table by the time on task.

3) Technical guidance, etc. personnel expenses (Article 6 Paragraph. 1, Item 3 and Item 4):

In the case of receiving technical guidance from workers, etc. of AIST on methods of operation and control, test sample preparation methods and analysis methods of data, etc., or in the case of receiving technical proxy services relating to observation, assay, analysis, fabrication and sample preparation, etc., an amount obtained by multiplying the unit price of technical guidance personnel expenses in (3) of the following table by time on task.

4) Additional expenses (Article 6, Paragraph 1, Item 5):

In the case where the Open Facilities require remodeling, an amount prescribed below:

Remodeling fee: Amount of cost necessary for remodeling of the Open Facilities, calculated by tallying the actual cost equivalent amount in accordance with the specific details of remodeling work.

Restoration fee: Amount of cost necessary for restoration to the status quo of Open Facilities that have been remodeled or modified, calculated by tallying the actual cost equivalent amount in accordance with the specific details of restoration construction.

5) Indirect expenses (Article6, Paragraph 1, Item 6)

Amount obtained by multiplying the amount as referred to in 1) to 4) above by 15%.

(1) Open facility equipment fee (tax-exclusive)

(a) Open facility equipment fee unit price	(b) Number of hours of use	(b) × (b) Open facility equipment fee
yen	Hours	yen

(2) Operating personnel expenses (tax-exclusive)

(c)	（d）	（c）×（d）

Operating personnel expenses uUnit price	Time on task	Operating personnel expenses
yen	hours	yen

(3) Technical guidance, etc. personnel expenses (tax-exclusive)

(e) Technical guidance etc. personnel expenses unit price	(f) Time on task	(e) × (f) Technical guidance etc. personnel expenses
yen	hours	yen

The amounts in (1), (2) and (3) are without consumption tax, etc.

Unit prices for (a), (c), and (e) are determined for each facility and are revised each year.

In the case where it is used for the project of the "Nanotechnology Platform" commissioned by the Ministry of Education, Culture, Sports, Science and Technology, operating personnel expenses and indirect costs shall not be included by the proviso of Article 6, Clause 1 and AIST shall also set lower unit price than normal unit price by Clause 2 of the same Article.

In some cases, use fees, etc. may be adjusted taking into consideration the scale of the User, etc.

3. ANCF (in the case of using a process that uses standard recipes), and BIO

1) Open facility equipment fee (Article 6, Paragraph 1, Item 1):

An amount obtained by multiplying the unit price of the open facility equipment fee prescribed in (1) of the following table by the product of the number of samples used and the number of processes.

2) Operating personnel expenses (Article 6, Paragraph. 1, Item 2):

In the case of receiving provision of services from workers, etc. of AIST, such as operation and control of the relevant equipment, an amount obtained by multiplying the unit price of operating personnel expenses prescribed in (2) of the following table by the product of the number of samples used and the number of processes.

3) Technical guidance, etc. personnel expenses (Article 6 Paragraph. 1, Item 3 and Item 4):

In the case of receiving technical guidance from workers, etc. of AIST on methods of operation and control, test sample preparation methods and analysis methods of data, etc., or in the case of receiving technical proxy services relating to observation, assay, analysis, fabrication and sample preparation, etc., an amount obtained by multiplying the unit price of technical guidance personnel expenses in (3) of the following table by time on task.

4) Additional expenses (Article 6, Paragraph 1, Item 5):

In the case where the Open Facilities require remodeling, an amount prescribed below:

Remodeling fee: Amount of cost necessary for remodeling of the Open Facilities, calculated by tallying the actual cost equivalent amount in accordance with the specific details of remodeling work.

Restoration fee: Amount of cost necessary for restoration to the status quo of Open Facilities that have been remodeled or modified, calculated by tallying the actual cost equivalent amount in accordance with the specific details of restoration construction.

5) Indirect expenses (Article6, Paragraph 1, Item 6)

Amount obtained by multiplying the amount as referred to in 1) to 4) above by 15%.

(1) Open facility equipment fee (tax-exclusive)

(a) Open facility equipment fee unit price	(b) Number of samples used × Number of processes	(c) × (b) Open facility equipment fee
yen	samples, processes	yen

(2) Operating personnel expenses (tax-exclusive)

(c) Operating personnel expenses unit price	(d) Number of samples used × Number of processes	(c) × (d) Operating personnel expenses
yen	samples, processes	yen

(3) Technical guidance, etc. personnel expenses (tax-exclusive)

(e) Technical guidance etc. personnel expenses unit price	(f) Time on task	(e) × (f) Technical guidance etc. personnel expenses
yen	hours	yen

The amounts in (1), (2) and (3) are without consumption tax, etc.

Unit prices for (a), (c), and (e) are determined for each facility and are revised each year.

In the case where use becomes impossible, or when use is suspended, the open facility equipment fees as well as operating personnel expenses relating to samples in works-in-progress shall be an amount equivalent to the time used up to the process in progress.

In the case where use was for registered equipment of the "Nanotechnology Platform" commissioned by the Ministry of Education, Culture, Sports, Science and Technology, operating personnel expenses and indirect costs shall not be included, also, AIST sets discount open facility equipment fee.

In some cases, use fees, etc. may be adjusted taking into consideration the scale of the User, etc.

Form 1

Open Facilities Application Form

To: Xxxx, President

The National Institute of Advanced Industrial Science and Technology

(Applicant for Use)

Xxxx, Xxxx (name and title of representative) (seal)

Xxxx K.K.

Xxxx (Address)

We herewith make application for use as follows in accordance with User Agreement for Open Facilities of the National Institute of Advanced Industrial Science and Technology. In addition, we consent to each of the following respective paragraphs.

1) We will observe all of the matters set forth in User Agreement for Open Facilities of the National Institute of Advanced Industrial Science and Technology.

2) We will comply with the instructions of AIST and the Facility Manager and Officers or Employees of AIST.

(1) Name of Open Facility desired for use

(2) Purpose of use and overview

(Please describe so that the actual conditions of use can be understood. Provided, unless it is deemed especially necessary to the operational management of the Open Facilities, disclosure of secrets relating to Intellectual Property Rights is not necessary.)

(3) Desired period for use

(4) Names, affiliations, and contact details for employee(s) to use the Facilities

(Please list names, affiliations, and contact details of all the persons)

(5) Whether provision of services, technical guidance, or technical proxy services are desired

(6) Prior consultation with Facility Manager

i. Name of applicable Facility Manager

ii. Date of having prior consultation

iii. Name and affiliation of persons who had prior consultation

(7) Whether or not publication of results is a requirement, and whether or not application for non-publication of results will be made (Article 15, Paragraph 1)

(Although publication of results is a requirement, if there is something that cannot be published, please specify and give reasons.)

(8) Preferred payment method for use fees, etc.

(Concerning preferred payment method for use fees, please specify either pre-payment and adjustment or post-payment.)

Notes

How to apply for use

The applicant for use shall consult with the Facility Manager listed at the URL given below under the address for submission of the Use Application Form on the status of vacancies, the possibility of provision of operation and control services, the possibility of technical support and technical proxy service, and the like, and having performed prior consultation on use, fill in the necessary items on the Open Facilities Use Application Form (Form 1), and submit it to the Secretariat (Tsukuba Innovation Arena Promotion Headquarters).

1. Address for submission of Use Application Form

Open Facilities Coordination Office
TIA Promotion Headquarters
Tsukuba Central 2, 1-1-1, Umezono,
Tsukuba, Ibaraki 305-8568, Japan
Tel.: +81-29-861-3210
Fax.: +81-29-861-3211
Email: tia-kyoyo-ml@aist.go.jp
URL: http://unit.aist.go.jp/tia-co/orp/index.html

2. Response on permission for use

We will perform coordination with the research unit or the like that manages the Open Facilities of which use is desired, and issue a response within ten (10) days, in principle, on whether or not the use is permitted and conditions for use, etc.

3. When AIST permits use by the User within AIST, a curriculum vitae must also be submitted for each individual permitted (refer to the table below for information to be included). Please submit to the address for submission of the Use Application Form.

Curriculum vitae and information to be included

1. Format	As long as the document is prepared by the subject person, there are no format restrictions		
2. Language	In Japanese language for Japanese citizens. In English or Japanese for citizens of foreign countries. A Japanese translation must be attached to any curriculum vitae written in a foreign language other than English.		
3. Information to be included	(1)	Required	Name
	(2)	Required	Name in *furigana* (Japanese phonetics)
	(3)	Required	Sex

	(4)	Required	Date of birth
	(5)	Required	Nationality
	(6)	Required	Name of school, fuculty, and department of graduation
	(7)	Required	Work history For foreign organizations, etc., describe in English.
	(8)	Required	Name of organization of applicant's currently affiliation for foreign organizations, etc., describe in English.
	(9)	Required	Post in current organizational affiliation (official position, degree, title, etc.)
	(10)	Required	Details of research currently in progress
	(11)	—	Brief overview of achievements