

As of April 2025

**CRDAM**  
**2025 List of Equipment open for collaborative research**

General Responsible Person : CRDAM Director Prof. Kato  
tel.+81-22-215-2114 e-mail : hidemi.kato.b7

1. Material preparation group

	Equipment	Deputy Manager	Contact		Responsible Operator	Contact	
			Tel.	e-mail		Tel.	e-mail
1-1	Electron Beam Lithography & Ion Milling System	Seki Prof.	215-2095	takeshi.seki	Yamazaki Assistant Professor	215-2097	takumi.yamazaki.d5
1-2	Multi-Target Reactive Sputtering (Ion Beam Sputtering)				Sasaki Technical Staff	215-2375	tomoko.sugiyama.a6
1-3	Reflection High Energy Electron Diffraction System				Ito Assistant Professor	215-2097	keita.ito.e3
1-4	Multi-Ion Vapor Deposition System				Sasaki Technical Staff	215-2375	tomoko.sugiyama.a6
1-5	Multi-Layer Chemical Vapor Deposition Reactor	Umetsu Prof.	215-2199	rie.umetsu	Sasaki Technical Staff	215-2375	tomoko.sugiyama.a6
1-6	Hot Working (Forging) Simulator	Kato Prof.	215-2114	hidemi.kato.b7	Yamanaka Associate Professor	215-2118	kenta.yamanaka.c5
1-7	Spark Plasma Sintering SPS-1050				Harata Technical Staff	215-2375	koichi.harata.e7
1-8	Spark Plasma Sintering SPS-3.20 Mark IV				Harata Technical Staff	215-2375	koichi.harata.e7
1-9	Electron-Beam Melting Furnace				Sugawara Technical Staff	215-2799	takamasa.sugawara.d3
1-10	Gas-atomization				Sato Research Associate	215-2233	mitsutaka.sato.a3
1-11	High Frequency Induction Tilt Casting				Umetsu Professor	215-2199	rie.umetsu
1-12	Single Roll Melt Spinning				Umetsu Professor	215-2199	rie.umetsu
1-13	Solidification Control Equipment from Liquid Phase				Tozawa Technical Staff	215-2799	shinichiro.tozawa.e4
1-14	Single Crystal Growth Equipment by Resistance Heating				Tozawa Technical Staff	215-2799	shinichiro.tozawa.e4
1-15	IR Image Furnace for Floating Zone Melting				Sugawara Technical Staff	215-2799	takamasa.sugawara.d3
1-16	Electron-beam Furnace for Floating Zone Melting				Sugawara Technical Staff	215-2799	takamasa.sugawara.d3
1-17	Crystal Growth Furnace with HF-inductive Heating System				Sugawara Technical Staff	215-2799	takamasa.sugawara.d3
1-18	Tungsten Resistivity Element Furnace for Vacuum Heating				Nomura Technical Staff	215-2799	akiko.nomura.d7
1-19	High-frequency Induction Furnace				Sugawara Technical Staff	215-2799	takamasa.sugawara.d3
1-20	High Temperature Floating Zone Furnace for Composite Ceramics	Sugawara Technical Staff	215-2799	takamasa.sugawara.d3			
1-21	Vacuum Arc Melting Furnace for Small-sized Ingot	Nomura Technical Staff	215-2799	akiko.nomura.d7			
1-22	Vacuum Arc Melting Furnace for Large-sized Ingot	Nomura Technical Staff	215-2799	akiko.nomura.d7			
1-23	Arc-melting Furnace with Horizontal-traveling Hearth	Nomura Technical Staff	215-2799	akiko.nomura.d7			
1-24	Programmable Furnace with MoSi <sub>2</sub> Heater	Nomura Technical Staff	215-2799	akiko.nomura.d7			

e-mail address : Add "@tohoku.ac.jp" .

Tel. No. : Add the nation and area codes (+81-22) first.

## 2. Material analysis group

	Equipment	Deputy Manager		Contact		Responsible Operator		Contact	
				Tel.	e-mail			Tel.	e-mail
2-1	Magnetic Property Measurement System	Seki	Prof.	215-2095	takeshi.seki	Ito	Assistant Professor	215-2097	keita.ito.e3
2-2	X-ray Diffractometer (Micro Area Type)	Kato	Prof.	215-2114	hidemi.kato.b7	Murakami	Technical Staff	215-2375	yoshihiro.murakami.e6
2-3	X-ray Diffractometer (Horizontal Sample Setting Type)					Murakami	Technical Staff	215-2375	yoshihiro.murakami.e6
2-4	X-ray Photoelectron Spectrometer (XPS)					Omura	Technical Staff	215-2375	kazuyo.omura.b1
2-5	Field Emission Scanning Electron Microscope (FE-SEM)					Narita	Technical Staff	215-2375	issei.narita.b4
2-6	Field Emission Electron Probe Micro Analyzer (FE-EPMA)					Narita	Technical Staff	215-2375	issei.narita.b4
2-7	Scanning Electron Microscope (Tungsten Filament) (W-SEM)					Narita	Technical Staff	215-2375	issei.narita.b4
2-8	Superconducting Quantum Interference Device (SQUID) Magnetometer	Umetsu	Prof.	215-2199	rie.umetsu	Umetsu	Professor	215-2199	rie.umetsu
2-9	Differential Scanning Calorimetry (DSC)	Kato	Prof.	215-2114	hidemi.kato.b7	Wada	Associate Professor	215-2112	takeshi.wada.d7
2-10	Conventional Type Thermal Analysis Measurement System (DTA, DSC, TMA)	Umetsu	Prof.	215-2199	rie.umetsu	Umetsu	Professor	215-2199	rie.umetsu
2-11	Wide and Small Angle X-ray Diffractometer (Rotating Anode X-ray Source)					Taniguchi	Assistant Professor	215-2039	takanori.taniguchi.d3
2-12	Vibrating Sample Magnetometer (VSM)					Umetsu	Professor	215-2199	rie.umetsu
2-13	Laue X-ray Back Scattering by Digital CCD Camera					Umetsu	Professor	215-2199	rie.umetsu
2-14	Seebeck Coefficient/Electrical Resistivity Measurement System					Umetsu	Professor	215-2199	rie.umetsu
2-15	Laser Flash Apparatus for Thermal Diffusivity and Conductivity Measurements					Umetsu	Professor	215-2199	rie.umetsu
2-16	Static Particle Image Analyzer	Kato	Prof.	215-2114	hidemi.kato.b7	Endo	Technical Staff	215-2375	takahide.endo.e5
2-17	Flat / Cross Section Ion Milling System					Sato	Research Associate	215-2233	mitsutaka.sato.a3
2-18	Micro Vickers Hardness Tester					Sato	Research Associate	215-2233	mitsutaka.sato.a3

e-mail address : Add "@tohoku.ac.jp" .

Tel. No. : Add the nation and area codes (+81-22) first.