

As of April 2024

**CRDAM**  
**2024 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. Materials Synthesis Station

	Equipment	Deputy Manager	Contact		Responsible Operator	Contact	
			Tel.	e-mail		Tel.	e-mail
1-1	Electron Beam Lithography & Ion Milling System	Umetsu Prof.	215-2199	rie.umetsu	Seki Professor	215-2097	takeshi.seki
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				Seki Professor	215-2097	takeshi.seki
1-4	Multi-Ion Vapor Deposition System				Sasaki Technical Staff	215-2375	tomoko.sugiyama.a6
1-5	Multi-Layer Chemical Vapor Deposition Reactor				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.e5
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

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## 2. Performance Evaluation Station

	Equipment	Deputy Manager		Contact		Responsible Operator		Contact	
				Tel.	e-mail			Tel.	e-mail
2-1	Magnetic Property Measurement System	Umetsu	Prof.	215-2199	rie.umetsu	Seki	Professor	215-2097	takeshi.seki
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	Professor	215-2199	rie.umetsu
2-11	Single Crystal X-ray Diffractometer (Rotating Anode X-ray Source)	Sugiyama	Prof.	215-2075	kazumasa.sugiyama.e6	Sugiyama	Professor	215-2075	kazumasa.sugiyama.e6
2-12	Wide and Small Angle X-ray Diffractometer (Rotating Anode X-ray Source)					Taniguchi	Assistant Professor	215-2039	takanori.taniguchi.d3
2-13	Vibrating Sample Magnetometer (VSM)	Umetsu	Prof.	215-2199	rie.umetsu	Umetsu	Professor	215-2199	rie.umetsu
2-14	Laue X-ray Back Scattering by Digital CCD Camera					Umetsu	Professor	215-2199	rie.umetsu
2-15	X-ray Diffraction Apparatus for Crystallographic Orientation Measurements	Sugiyama	Prof.	215-2075	kazumasa.sugiyama.e6	Kawamata	Assistant Professor	215-2079	kawamata
2-16	Seebeck Coefficient/Electrical Resistivity Measurement System	Umetsu	Prof.	215-2199	rie.umetsu	Umetsu	Professor	215-2199	rie.umetsu
2-17	Laser Flash Apparatus for Thermal Diffusivity and Conductivity Measurements	Kato	Prof.	215-2114	hidemi.kato.b7	Umetsu	Professor	215-2199	rie.umetsu
2-18	Static Particle Image Analyzer					Endo	Technical Staff	215-2375	takahide.endo.e5
2-19	Flat / Cross Section Ion Milling System					Sato	Research Associate	215-2233	mitsutaka.sato.a3

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## 3. Crystal Preparation Station

	Equipment	Deputy Manager		Contact		Responsible Operator		Contact	
				Tel.	e-mail			Tel.	e-mail
3-1	Solidification Control Equipment from Liquid Phase	Kato	Prof.	215-2114	hidemi.kato.b7	Tozawa	Technical Staff	215-2799	shinichiro.tozawa.e4
3-2	Single Crystal Growth Equipment by Resistance Heating					Tozawa	Technical Staff	215-2799	shinichiro.tozawa.e4
3-3	IR Image Furnace for Floating Zone Melting					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-4	Electron-beam Furnace for Floating Zone Melting					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-5	Crystal Growth Furnace with HF-inductive Heating System					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-6	Tungsten Resistivity Element Furnace for Vacuum Heating					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-7	High-frequency Induction Furnace					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-8	High Temperature Floating Zone Furnace for Composite Ceramics					Sugawara	Technical Staff	215-2799	takamasa.sugawara.d3
3-9	Vacuum Arc Melting Furnace for Small-sized Ingot					Nomura	Technical Staff	215-2799	akiko.nomura.d7
3-10	Vacuum Arc Melting Furnace for Large-sized Ingot					Nomura	Technical Staff	215-2799	akiko.nomura.d7
3-11	Arc-melting Furnace with Horizontal-traveling Hearth					Nomura	Technical Staff	215-2799	akiko.nomura.d7
3-12	Programmable Furnace with MoSi <sub>2</sub> Heater					Nomura	Technical Staff	215-2799	akiko.nomura.d7

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