

Equipment/Apparatus/Device	Manufacturer	Model	Establishment	Remarks	For Internal Users (Kochi Univ.)	For External Users in Academic	For External Users		Expendable Supplies for Measurement
					Charge	Charge	Charge	First Time Charge including Lecture	
<b>Nondestructive Measurement</b>									
X-ray CT scanner	Canon Medical Systems Corporation	Aquilion PRIME Focus Edition	2017		2,000 JPY/day	6,500 JPY/30min	15,000 JPY/30min	80,000 JPY/day	DVD-R: 100JPY/disc
Micro-Focus X-ray CT Scanner	Zeiss	Xradia	2016		2,000 JPY/day	2,500 JPY/30min	5,000 JPY/30min	30,000 JPY/day	DVD-R: 100JPY/disc
Multi Sensor Core Logger	Geotek	MSCL-S	2003		2,000 JPY/day	3,800 JPY/hour	15,000 JPY/hour	36,000 JPY/day	
Core Image Scanner	Alphacom		2003		500 JPY/day	500 JPY/hour	2,000 JPY/hour	7,000 JPY/day	
XRF Core Scanner (JEOL)	JEOL	JSX-3600CAZ TATSCAN-F2	2003		2,000 JPY/day	2,000 JPY/hour	6,100 JPY/hour	17,200 JPY/day	Film: 500JPY/meter
XRF Core Scanner (COX)	COX Analytical Systems	ITRAX	2014		2,000 JPY/day	7,200 JPY/hour	22,000 JPY/hour	48,000 JPY/day	Film: 500JPY/meter
X-ray analytical microscope	HORIBA	XGT-7200V	2011		business hours (8:30-17:15) 1,500 JPY/day non-business hours 1,500 JPY/hour	1,500 JPY/hour	2,500 JPY/hour	-	
Color spectrophotometer	KONICA MINOLTA	CM-700d	2011		300 JPY/day	300 JPY/hour	500 JPY/hour	-	
<b>Physical Property</b>									
Ultrasonic Propagation Velocity Measuring Instrument	OYO Corporation	Sonic-Viewer SX	2003		300 JPY/day	300 JPY/hour	1,000 JPY/hour	8,000 JPY/day	
Pentapycnometer	Quantachrome Instrument	PPYC-KU	2003		300 JPY/day	300 JPY/hour	900 JPY/hour	6,400 JPY/day	
Laser Diffraction Particle Size Analyzer	Malvern Instruments	Mastersizer 2000	2003		500 JPY/day	500 JPY/hour	1,400 JPY/hour	8,200 JPY/day	
Refractive Index Measurement using the Thermal Immersion Method	Kyoto Fission Track	RIMS2000	2003		1,100 JPY/day	1,100 JPY/hour	4,200 JPY/hour	14,400 JPY/day	
<b>Magnetic Measurement</b>									
Pass-through Superconducting Magnetometer for U-Channel Samples	2G	Model 760R (U-channel)	2003		2,000 JPY/day	5,000 JPY/day	20,000 JPY/day	10,000 JPY/day	
Thermal Demagnetizer	Natsuhara-Giken	TDS-1	2003	Possible to have vacuum heating in around 10 Pa	500 JPY/day	1,200 JPY/day	3,500 JPY/day	1,800 JPY/day	
Alternating Field (AF) Demagnetizer	Natsuhara-Giken	DEM-95	2003		500 JPY/day	1,200 JPY/day	3,500 JPY/day	1,800 JPY/day	
Spinner Magnetometer	Natsuhara-Giken	SMD88	2003		500 JPY/day	1,200 JPY/day	3,500 JPY/day	1,800 JPY/day	
Magnetic Property Measurement System (MPMS)	Quantum Design	MPMS-XL5	2003		2,000 JPY/day	5,000 JPY/day	20,000 JPY/day	10,000 JPY/day	
Vibrating Sample Magnetometer (VSM)	Lake Shore	MicroMag 3900 VSM	2003		1,400 JPY/day	3,400 JPY/day	10,000 JPY/day	5,000 JPY/day	
Magnetic Balance	Natsuhara-Giken	NMB-89	2003		1,000 JPY/day	2,400 JPY/day	7,000 JPY/day	3,500 JPY/day	
Pulse Magnetizer	Magnetic Measurements	MMPM10	2003		300 JPY/day	400 JPY/day	1,000 JPY/day	500 JPY/day	
Three Frequency Kappabridges for Measurements of Magnetic Susceptibility	AGICO	MFK1-FA, CS4, CS-L	2014	Impossible under Ar atmosphere	1,000 JPY/day	2,400 JPY/day	7,000 JPY/day	3,500 JPY/day	
<b>Geochemistry</b>									
Inductively Coupled plasma atomic emission spectrometer, desktop style (ICP AES)	PerkinElmer	Optima4300DV CYCRON	2003		1,100 JPY/day	2,200 JPY/day	4,400 JPY/day	-	Argon(Ar) gas: 1,500JPY/hour
Precise Mercury Analyzer for Liquid Samples	KYOTO ELECTRONICS MANUFACTURING	MD-700B	2020		1,200 JPY/day	2,400 JPY/day	4,800 JPY/day	-	
UV-VIS Spectrometer	SHIMADZU	UV-2550PC	2003		200 JPY/day	200 JPY/hour	800 JPY/hour	13,600 JPY/day	
UV-VIS Spectrometer with temperature and pressure controller	JASCO	V-650	2008		500 JPY/day	1,000 JPY/day	2,000 JPY/day	-	
Fluorometer with temperature controller	JASCO	FP-6500	2009		500 JPY/day	1,000 JPY/day	2,000 JPY/day	-	
Gas Chromatograph (GC)	Agilent	6890N, 7890B	2003 2017		500 JPY/day	500 JPY/hour	2,100 JPY/hour	16,200 JPY/day	
Gas Chromatograph (for dissolved gas measurement)	SHIMADZU	GC-2014	2020		3,000 JPY/day	6,000 JPY/day	12,000 JPY/day	-	
Carbon Analysis Coulometer	UIC	CM5012	2003		1,200 JPY/day	1,200 JPY/hour	4,600 JPY/hour	12,200 JPY/day	
Organic Elemental Analyzer	ThermoFinnigan	Flash EA1112	2003		1,000 JPY/day	1,000 JPY/hour	3,900 JPY/hour	19,800 JPY/day	
Density/Specific Gravity Meter	KYOTO ELECTRONICS MANUFACTURING	DA-650	2011		600 JPY/day	1,200 JPY/day	2,400 JPY/day	-	
Conductivity Temperature Depth profiler with Turbidity sensor (CTD-T)	RBR	XR-620	2012		1,000 JPY/day	2,000 JPY/day	4,000 JPY/day	-	
High-Speed Solvent Extraction Device	ThermoScientific	Dionex ASE-350	2016		800 JPY/day	800 JPY/hour	3,100 JPY/hour	9,200 JPY/day	
High-Speed Concentration Device	Zymark	Turbo Vap LV	2003		200 JPY/day	200 JPY/hour	700 JPY/hour	4,400 JPY/day	
<b>X-ray Analysis</b>									
X-ray Diffractometer (XRD)	Spectris	X'pert-PRO	2003		800 JPY/day	800 JPY/hour	2,400 JPY/hour	14,800 JPY/day	
X-ray Fluorescence Spectrometer (XRF)	Spectris	Magix PRO PW2440/00	2003		1,200 JPY/day	1,200 JPY/hour	3,700 JPY/hour	17,400 JPY/day	

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<b>Spectral Analysis</b>									
Micro Laser Raman Spectrometer	Horiba Jobin Yvon Inc.	T64000	2003		1,000 JPY/day	1,000 JPY/hour	3,000 JPY/hour	10,800 JPY/day	
Gamma-ray spectrometer	Princeton Gamma-Tech Instruments	GWL-120-15	2003		500 JPY/day	500 JPY/hour	1,600 JPY/hour	8,600 JPY/day	
<b>Biological Analysis</b>									
Thermal cycler	appliedbiosystems	GeneAmp PCR	2003		500 JPY/day	500 JPY/hour	1,400 JPY/hour	12,200 JPY/day	
DNA Sequencer	appliedbiosystems	ABI PRISM 3130xl	2003	Acceptable after reaction and purification of samples	3,400 JPY/run	3,600 JPY/run	6,000 JPY/run	15,400 JPY/day	
High Performance Liquid Chromatograph	SHIMADZU	LC-10VP	2003		600 JPY/day	600 JPY/hour	1,800 JPY/hour	13,000 JPY/day	
Fluorescent Microscopy	Olympus	BX-51-34-FLD1-SP&DP-50-B	2003		200 JPY/day	200 JPY/hour	600 JPY/hour	3,400 JPY/day	
Fluorescent Microscopy with Simple Polarizer	Olympus	BX-51	2016		200 JPY/day	200 JPY/hour	600 JPY/hour	3,400 JPY/day	
Fluorescent Objective Microscope	Olympus	SZX12-RFL3-1&DP12-B	2003		200 JPY/day	200 JPY/hour	500 JPY/hour	3,400 JPY/day	
Fluorescent Phase Contrast Microscope	Olympus	BX-51-34-FLD1-SP	2003		200 JPY/day	200 JPY/hour	600 JPY/hour	3,400 JPY/day	
Inverted Fluorescent Microscope	Carl Zeiss MicroImaging Japan	Axiocvert(V200M-FL/PH/DIC)+AxioCam HR	2003		300 JPY/day	300 JPY/hour	1,000 JPY/hour	4,400 JPY/day	
<b>Surface Analysis / Microscopes</b>									
Field-Emission Scanning Electron Microscope (FE-SEM)	JEOL	JSM-6500F	2003	Write the request in application form when using EBSD	2,000 JPY/day	2,100 JPY/hour	6,300 JPY/hour	17,400 JPY/day	
Electron Probe Microanalyzer (EPMA)	JEOL	JXA-8200	2003		2,000 JPY/day	2,200 JPY/hour	6,500 JPY/hour	23,600 JPY/day	
Universal Photo Microscope	Zeiss	Axiophoto2(PH2-DIC)	2003		300 JPY/day	300 JPY/hour	900 JPY/hour	7,000 JPY/day	
	Zeiss	Axiophoto2(PH2-FL/Ph/DIC)	2003						
	Zeiss	Axioplan 2 Imaging E(P2IE-FL/Ph/DIC)	2003						
Stereomicroscope (Stereomicroscope for the Observation of Two People)	Carl Zeiss MicroImaging Japan	Stemi SV6	2003		100 JPY/day	100 JPY/hour	300 JPY/hour	3,200 JPY/day	
	Carl Zeiss MicroImaging Japan	Stemi SV11	2003						
	Carl Zeiss MicroImaging Japan	Stemi SV11	2003						
Polarizing Microscope	Carl Zeiss MicroImaging Japan	Axiolab Pol(LABPOL-T/RS)	2003		200 JPY/day	200 JPY/hour	600 JPY/hour	6,600 JPY/day	
	Carl Zeiss MicroImaging Japan	Axiolab Pol(LABPOL-T1)	2003						
	Carl Zeiss MicroImaging Japan	Axioplan2 Imaging Pol (P2IPOL-T/R2)	2003						
	Carl Zeiss MicroImaging Japan	Axiophoto2(PH2-FL/Ph/DIC)	2003						
Polarizing Microscope with image combining system	Leica	DM6000 / PowerMosaicPlus	2014		1,100 JPY/day	1,100 JPY/hour	4,300 JPY/hour	11,600 JPY/day	
Digital Microscope	Keyence	VHX-2000	2014		1,200 JPY/day	1,200 JPY/hour	4,700 JPY/hour	12,400 JPY/day	
<b>Mass Spectrometry</b>									
Isotope Ratio Mass Spectrometer (IR-MS)	Thermo Fisher Scientific.	MAT253	2003		2,000 JPY/day	2,200 JPY/hour	6,600 JPY/hour	15,600 JPY/day	
Stable Isotope Analysis (IR-MS)	Isoprime	IsoPrime	2003		2,000 JPY/day	4,300 JPY/hour	17,000 JPY/hour	37,000 JPY/day	
Thermal Ionization Mass Spectrometer (TIMS)	Thermo Fisher Scientific	TRITON	2003	Only Sr, Nd; Ask us more details	2,000 JPY/day	2,600 JPY/hour	7,800 JPY/hour	25,000 JPY/day	
Gas Chromatograph/Mass Spectrometer with Thermal Desorption Equipments (GC/MS)	Agilent	6890+5973N	2003		2,000 JPY/day	2,000 JPY/hour	7,900 JPY/hour	27,800 JPY/day	
Elemental Analyzer/Isotope Ratio Mass Spectrometer (EA/IRMS)	Thermo Finnigan	Finnigan DELTA plus Advantage	2003		2,000 JPY/day	2,800 JPY/hour	11,000 JPY/hour	34,000 JPY/day	
Gas Chromatograph/Combustion Isotope Ratio Mass Spectrometry(GC/IRMS)	Thermo Finnigan	Finnigan DELTA plus XP	2003		2,000 JPY/day	4,500 JPY/hour	18,000 JPY/hour	48,000 JPY/day	
Double-Focusing High Resolution ICP Multi-Collector Mass Spectrometer (ICP-MC-MS)	Thermo Fisher Scientific	NEPTUNE	2003	Only Pb; Ask us more details	2,000 JPY/day	3,400 JPY/hour	10,000 JPY/hour	29,600 JPY/day	Argon(Ar) Gas: 1,500JPY/hour
<b>Others</b>									
Pressure Resistant Tester	KIMOTO ELECTRIC	ST-08	2014		500 JPY/day	1,000 JPY/day	2,000 JPY/day	-	Communication Network if necessary: 500JPY/day
3D Printer	Markforged	MARK TWO	2016		750 JPY/day	1,500 JPY/day	3,000 JPY/day	-	Nylon: 100JPY/cm <sup>3</sup> Carbon:1,500JPY/cm <sup>3</sup>
3D Printer (for ABS resin)	xyz printing	da Vinci 2.0 A DUO	2017		250 JPY/day	500 JPY/day	1,000 JPY/day	-	ABS resin: 30JPY/m
3D Printer (for PLA resin)	xyz printing	da Vinci mini	2017		200 JPY/day	300 JPY/day	600 JPY/day	-	PLA resin: 20JPY/m
Laser processing machine ( Podea )	Podea	Podea-01 Type G	2017		500 JPY/day	1,000 JPY/day	2,000 JPY/day	-	
Laser processing machine ( Oh-Laser )	Oh-Laser	HAJIME CL-1	2017		1,000 JPY/day	2,000 JPY/day	4,000 JPY/day	-	
Sampling table (per one table)					-	3,000 JPY/day	5,000 JPY/day	-	