

CSIR-Central Glass and Ceramic Research Institute  
List of Equipments and testing charges

Equipment Code	Approved Abbreviation	Name of Equipment	Test name	Charges for Industry	Charges for Academic	Charges for CSIR Labs	Charges for national R&D Labs
CSIR-CGCRI-1001	TEM	Transmission Electron Microscope	High-Resolution Transmission Electron Microscopy for Analysis of materials' microstructure and nanostructure	10100	5050	5050	5050
CSIR-CGCRI-1002	XPS	X-ray Photoelectron Spectroscope	X-ray Photoelectron Spectroscopy for Surface chemistry analysis	15000	7500	7500	7500
CSIR-CGCRI-1003	XRD	X ray diffractometer	X ray diffractometer for XRD Diffractogram without analysis	1600	800	800	800
	XRD	X ray diffractometer	X ray diffractometer for Qualitative Phase analysis	2700	1350	1350	1350
	XRD	X ray diffractometer	X ray diffractometer for Quantitative Phase analysis	5300	2650	2650	2650
CSIR-CGCRI-1004	XRF	X-Ray Fluorescence Spectrometer	X-Ray Fluorescence Spectrometer for Semi-Quantitative Elemental analysis by XRF	5000	2500	2500	2500
CSIR-CGCRI-1005	NI	Nanoindenter	Nanoindenter for Nanohardness measurement of Glass and Ceramics	8800	4400	4400	4400
CSIR-CGCRI-1006	VHT	Vicker's Hardness Tester	Vicker's Hardness Tester for Measurement of materials' macro/micro hardness	2500	1250	1250	1250
CSIR-CGCRI-1007	IA	Impedance Analyzer	Impedance Analyzer for Measurement of Impedance Spectra	5000	2500	2500	2500
CSIR-CGCRI-1008	VSM	Vibrating Sample Magnetometer	Vibrating Sample Magnetometer for Measurement of Magnetic moment vs field hysteresis loop	5000	2500	2500	2500
CSIR-CGCRI-1009	ST	Scratch Tester	Scratch Tester for Micro/Macro Scratch Testing at 2-200N Load	8800	4400	4400	4400

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CSIR-CGCRI-1010	SHPB	Split Hopkinson Pressure Bar Apparatus	Split Hopkinson Pressure Bar Apparatus for High strain rate behaviour of materials under compression	15000	7500	7500	7500
CSIR-CGCRI-1011	FESEM	Field Emission Scanning Electron Microscopy	Field Emission Scanning Electron Microscopy for Study of surface morphology	7700	3850	3850	3850
	FESEM	Field Emission Scanning Electron Microscopy	Field Emission Scanning Electron Microscopy for Study of surface morphology with EDX Analysis	6200	3100	3100	3100
CSIR-CGCRI-1012	UTM	Universal testing Machine	Universal testing Machine for Determination of Tensile Strength	5300	2650	2650	2650
	UTM	Universal testing Machine	Universal testing Machine for Determination of Flexural Strength	2100	1050	1050	1050
	UTM	Universal testing Machine	Universal testing Machine for Determination of Bolt-Shear Strength	2100	1050	1050	1050
	UTM	Universal testing Machine	Universal testing Machine for Determination of Compressive Strength/ Crushing Load	2100	1050	1050	1050
CSIR-CGCRI-1013	GAMMA	Gamma Ray Sterilizer	Gamma Ray Sterilizer for Sterilization/Co-polymerisation	5200	2600	2600	2600/
CSIR-CGCRI-1014	HTT	High Temperature Ball-on-Disc	High Temperature Ball-on-Disc for determination of High Temperature tribological properties using Ball-on-Disc Tribometer	9300	4650	4650	4650
	HTT	High Temperature Pin-on-Disc Tribometer	High Temperature Pin-on-Disc Tribometer for determination of High Temperature tribological properties using Pin-on-Disc Tribometer	9300	4650	4650	4650
CSIR-CGCRI-1015	HIPS	Hip Joint Simulators	Hip Joint Simulators for Hip simulation studies	300	150	150	150

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CSIR-CGCRI-1016	SP	Surface Profilometer	Surface Profilometer for Measurement of sample roughness and form/contour	700	350	350	350
CSIR-CGCRI-1017	CNC CMM	3D CNC Coordinate Measuring Machine	3D CNC Coordinate Measuring Machine for Mesurement of 3D CNC Coordinate	800	400	400	400
CSIR-CGCRI-1018	GC	Gas chromatography system	Gas chromatography system for Determination of concentration of liquid, single or in mixture.	5600	2800	2800	2800
CSIR-CGCRI-1019	IC	Automated Water Analysis System	Automated Water Analysis System for Water and Waste water	7000	3500	3500	3500
CSIR-CGCRI-1020	Galvano Stat & Potentio Stat	Galvano Stat & Potentio Stat	Galvano Stat & Potentio Stat for Cyclic Voltammetry (Limit 6V, 1A) Normal scan ( $\geq 1$ mV/s) Slow scan ( $< 1$ mV/s)	5000	2500	2500	2500
CSIR-CGCRI-1021	Battery Tester	Battery Tester	Battery Tester for Galvanostatic charge discharge (Range: 6V, 500 mA) upto 300 cycles	15500	7750	7750	7750
CSIR-CGCRI-1022	FDT	Optical Fiber Drawing Tower-II	Optical Fiber Drawing Tower-II for Standard 125 $\mu$ m OD optical fiber fabrication.	75000	37500	37500	37500
CSIR-CGCRI-1023	MCVD	MCVD System-I	MCVD System-I for Specialty optical fiber preform fabrication : One standard preform of 50 cm length	225000	112500	112500	112500
	MCVD	MCVD System-I	MCVD System-I for Specialty optical fiber preform fabrication : One rare-earths doped preform of 40 cm length	360000	180000	180000	180000
CSIR-CGCRI-1024	FBGW	FBG Writing Station	FBG Writing Station for Optical fiber based grating fabrication - One chirped FBG in acrylite coated single mode fiber:	9500	4750	4750	4750
	FBGW	FBG Writing Station	FBG Writing Station for Optical fiber based grating fabrication - One long period grating in acrylite coated single mode fiber:	10000	5000	5000	5000

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	FBGW	FBG Writing Station	FBG Writing Station for Optical fiber based grating fabrication - Extra for grating in polyimide coated fiber. For bulk order concession may be considered	2000	1000	1000	1000
CSIR-CGCRI-1025	OPA	Optical Preform Analyzer	Optical Preform Analyzer for Optical Preform Refractive Index Profiler analysis	12000	6000	6000	6000
CSIR-CGCRI-1026	OFA	Optical Fiber Analyzer-I	Optical Fiber Analyzer-I for Optical Fiber Refractive Index Profiler & Geometry Analysis	10500	5250	5250	5250
CSIR-CGCRI-1027	OSA	Optical Spectrum Analyzer	Optical Spectrum Analyzer for Optical Spectroscopy	10000	5000	5000	5000
CSIR-CGCRI-1028	RAMAN	Confocal Micro Laser Dispersive RAMAN Spectrometer	Confocal Micro Laser Dispersive RAMAN Spectrometer for RAMAN Spectra Analysis	5000	2500	2500	2500
CSIR-CGCRI-1029	UV-Vis-NIR-ABS	UV-Vis-NIR spectrometer	UV-Vis-NIR spectrometer for Spectroscopic measurement of overall transmission in UV/Visible/NIR.	2000	1000	1000	1000
CSIR-CGCRI-1030	PCOUPLER	Refractometer (Prism Coupler)	Refractometer (Prism Coupler) for Refractive index (nd) and Abbe number (Vd)	5200	2600	2600	2600
CSIR-CGCRI-1031	VISCO	Viscometer	Viscometer for Viscosity measurement of Glass/Slags using Rotation and Oscillation mode	35000	17500	17500	17500
CSIR-CGCRI-1032	INTERFER	Interferometer	Interferometer for Measurement of Surface Flatness and bulk optical homogeneity	3400	1700	1700	1700
CSIR-CGCRI-1033	FLOURI	Fluorescence Spectrophotometer	Fluorescence Spectrophotometer for Measurements of Photo Emission, excitation and Fluorescence life time	4400	2200	2200	2200
CSIR-CGCRI-1034	DIL	Dilatometer	Dilatometer for Measurement of Co-efficient of linear thermal expansion	4400	2200	2200	2200
CSIR-CGCRI-1035	STA	Simultaneous Thermal Analyser	Simultaneous Thermal Analyzer for DTA/TGA analysis	5100	2550	2550	2550
	STA	Simultaneous Thermal Analyser	Simultaneous Thermal Analyzer for DSC/Specific heat analysis	6100	3050	3050	3050

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CSIR-CGCRI-1036	NPZA	Nano-particle Size & Zetapotential Analyzer	Nanoparticle size and Zeta potential analyzer for Nano particle size analysis by DLS	4000	2000	2000	2000
	NPZA	Nano-particle Size & Zetapotential Analyzer	Nanoparticle size and Zeta potential analyzer for Zeta potential	4000	2000	2000	2000
	NPZA	Nano-particle Size & Zetapotential Analyzer	Nanoparticle size and Zeta potential analyzer for Isoelectric point determination	5300	2650	2650	2650
CSIR-CGCRI-1037	MPSA	Micro-particle Size Analyzer	Micro-particle Size analyzer for particle size analysis	4600	2300	2300	2300
CSIR-CGCRI-1038	TCA	Thermal Constants Analyzer	Thermal Constants Analyzer for determination of thermal conductivity	8300	4150	4150	4150
CSIR-CGCRI-1039	RR	Rotational Rheometer	Rotational rheometer for Flow characterization, Creep	2700	1350	1350	1350
	RR	Rotational Rheometer	Rotational rheometer for Thixotropic analysis	2700	1350	1350	1350
	RR	Rotational Rheometer	Rotational rheometer for Oscillation	2700	1350	1350	1350
	RR	Rotational Rheometer	Rotational rheometer for Magneto-rheology (at 3 magnetic field values)	3700	1850	1850	1850
CSIR-CGCRI-1040	SAA	Surface Area Analyzer	Surface area analyzer for surface area measurement by BET method	4100	2050	2050	2050
	SAA	Surface Area Analyzer	Surface area analyzer for determination of pore volume and pore size by N <sub>2</sub> gas sorption	6100	3050	3050	3050
CSIR-CGCRI-1041	PSA	Pore Size Analyzer	Pore size analyzer for determination of pore size distribution by mercury porosimeter	2500	1250	1250	1250
CSIR-CGCRI-1042	HGSA	High-speed Gas Sorption Analyzer	High speed gas sorption analyzer for surface area measurement by BET method	4100	2050	2050	2050

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	HGSA	High-speed Gas Sorption Analyzer	High speed gas sorption analyzer for determination of pore volume and pore size by N <sub>2</sub> gas sorption	6100	3050	3050	3050
CSIR-CGCRI-1043	CD	Carbon Determinator	Carbon determinator for determination of carbon content in sample	1800	900	900	900
CSIR-CGCRI-1044	HGP	Helium Gas Pycnometer	Helium gas pycnometer for measurement of density of sample (any shape) by gas pycnometry	1300	650	650	650
CSIR-CGCRI-1045	ONA	Oxygen Nitrogen Analyzer	Oxygen-Nitrogen Analyzer for determination of nitrogen content in sample	1800	900	900	900
	ONA	Oxygen Nitrogen Analyzer	Oxygen-Nitrogen Analyzer for determination of oxygen content in sample	1800	900	900	900
CSIR-CGCRI-1046	AASP	Atomic Absorption Spectro Photometer	Atomic Absorption Spectro Photometer for determination of each element (Pb, Cd, As)	2500	1250	1250	1250
CSIR-CGCRI-1047	ICP-AES	ICP-AES	ICP-AES for determination of each element (Si, Al, Fe, Ti, Ca, Mg, Na, K, Li, Sr, Ba, Mn, Zn, Zr, Cu, Cr, Ni, Co, Mo, Pb, Cd, Pt, Pd, As, Sb, S,P)	3500	1750	1750	1750
CSIR-CGCRI-1048	ICP-MS	ICP-MS	ICP-MS for Elemental Analysis	4550	2275	2275	2275
CSIR-CGCRI-1049	FTIR	FTIR	FTIR for Spectral Analysis	750	375	375	375
CSIR-CGCRI-1050	CAS	Controlled Atmosphere Sintering Furnace	Controlled Atmosphere Sintering Furnace for Brazing (Ceramic-Metal joining)/sintering studies 1200° C	30000	15000	15000	15000
	CAS	Controlled Atmosphere Sintering Furnace	Controlled Atmosphere Sintering Furnace for Brazing (Ceramic-Metal joining)/sintering studies 1700° C	40000	20000	20000	20000
CSIR-CGCRI-1051	FCT	FCT-Hot Press	FCT-Hot Press for Hot Pressing at 1800° C	120000	60000	60000	60000
	FCT	FCT-Hot Press	FCT-Hot Press for Hot Pressing at 2000° C	140000	70000	70000	70000

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	FCT	FCT-Hot Press	FCT-Hot Press for Hot Pressing at 1800°C	65000	32500	32500	32500
	FCT	FCT-Hot Press	FCT-Hot Press for Hot Pressing at 2000°C	80000	40000	40000	40000
CSIR-CGCRI-1052	FCT	FCT Spark Plasma Sintering Furnace	FCT Spark Plasma Sintering Furnace for Spark plasma sintering studies	7500	7500	7500	7500
	FCT	FCT Spark Plasma Sintering Furnace	FCT Spark Plasma Sintering Furnace for Spark plasma sintering studies	10000	10000	10000	10000
CSIR-CGCRI-1053	SECEL	Spectroscopic Ellipsometer	Spectroscopic Ellipsometer for Determination of thickness and refractive index of thin films	1700	850	850	850
CSIR-CGCRI-1054	GIXRD	GIXRD	GIXRD for XRD of Thin film	5200	2600	2600	2600
CSIR-CGCRI-1055	HCIC	High temperature compressive creep tester	High temperature compressive creep tester for Refractoriness under load (RUL) and Creep in compression of ceramic materials	10000	5000	5000	5000
CSIR-CGCRI-1056	RFDCSS	RF & DC sputtering system	RF & DC sputtering system for Preparation of thin films	7900	3950	3950	3950
CSIR-CGCRI-1057	HMOR	Temperature Bending Strength	High Temperature Bending Strength Tester for High Temperature flexural strength test	7600	3800	3800	3800
CSIR-CGCRI-1058	LFTD	Laser flash thermal diffusivity analyser	Laser flash thermal diffusivity analyser for thermal diffusivity	10000	5000	5000	5000
CSIR-CGCRI-1059	ESP	400T Press	400T Press for standard refractory brick fabrication	6400	3200	3200	3200
CSIR-CGCRI-1060	ESP	Thermo Mechanical Analyser	Thermo Mechanical Analyser for Thermo Mechanical Analysis	8900	4450	4450	4450