

CCMR Shared Facility Rates - Corporate Use

(Updated Feb. 2019)

Some rates consist of a fixed charge plus an hourly rate.

Manager Labor Rate (may be charged in addition to
instrument rates below)

\$154.00 /hr

Electron Microscopy

Arctica-S/TEM \$200.00 /hr

Cryo-S/TEM n/a

FEI F20 TEM STEM \$459.00 /hr

FEI Strata 400 STEM FIB \$306.00 /hr

NION UltraSTEM 100 (4 hr minimum) \$510.00 /hr

FEI Tecnai T12 Spirit TEM STEM \$224.50 /hr

FEI Tecnai 12 BioTwin TEM \$224.50 /hr

Zeiss Gemini 500 SEM \$224.50 /hr

LEO 1550 FESEM (Keck SEM) \$224.50 /hr

Tescan-Mira3-FESEM \$224.50 /hr

TEM Sample Preparation:

Allied Multiprep Polisher (A or B) \$112.20 /hr

Leica EM UC7/FC7 Cryoultramicrotome \$127.50 /hr

Leica Ultracut UCT Ultramicrotome - RT \$127.50 /hr

Microscopy, Spectroscopy, Surface Analysis

Scienta Omicron ESCA 2SR XPS System \$250.00 /hr

Surface-Science-Instruments-SSX-100-XPS-System \$125.00 /hr

Keyence VK-X260 3D Laser Scanning Confocal Microscope \$153.00 /hr

Asylum-MFP3D-Bio-AFM-SPM \$153.00 /hr

Tencor Alpha Step 500 Stylus Profilometer \$80.00 /hr

WITec-Alpha300R-Confocal-Raman-Microscope \$180.00 /hr

Renishaw InVia Confocal Raman microscope \$168.30 /hr

Bruker Hyperion FT-IR Spectrometer & Microscope \$158.10 /hr

Bruker Vertex Vacuum FT-IR \$158.10 /hr

Cary 5000 UV Vis NIR Spectrometer \$132.60 /hr

Shimadzu UV-3600 UV-Vis-NIR Spectrometer \$132.60 /hr

Aviv 400 Circular Dichroism Spectrometer \$132.60 /hr

Edinburgh FLS1000 Fluorescence and Lifetime
Spectrometer \$132.60 /hr

Novocontrol Broadband Dielectric Spectrometer \$22.50 + \$132.60 /hr

Novocontrol Thermal Stimulated Depolarization Current
(TSDC) \$22.50 + \$132.60 /hr

Soft Matter/Polymer Analysis

TA Instruments DHR3 Single Head Rheometer		\$122.40 /hr
Waters MALDI Micro MX (MALDI-TOF)		\$214.20 /sample
JAI-LC9110NEXT-Recycling-Preparative-GPC		\$214.20 /sample
Waters Ambient-Temperature GPC		\$86.70 /sample
Waters Ambient-Temperature Aqueous GPC		\$86.70 /sample
Waters Breeze DMSO-GPC		\$86.70 /sample
TA Instruments Q500 Thermogravimetric Analyzer (TGA)		\$107.10 /sample
TA Instruments Q1000 Modulated Differential Scanning Calorimeter (MDSC)		\$168.30 /sample

X-Ray and Diffraction Analysis

Rigaku SmartLab X-Ray Diffractometer		\$127.50 /hr
Bruker D8 General Area Detector Diffraction System (GADDS)		\$153.00 /hr
Bruker D8 Powder Diffractometer		\$153.00 /hr
Multiwire Back-Reflection Laue Detector		\$178.50 /hr

Mechanical Properties Testing and Analysis

TA Instruments DMA Q800 Dynamic Mechanical Thermal Analysis (DMTA)	\$30 +	\$112.20 /hr
TA Instruments Q400EM Thermomechanical Analysis (TMA)		\$84.15 /hr
Micro Hardness Tester	\$15.3 +	\$15.30 /hr
Micromechanical Analyzer		\$52.50 /hr
Linkham Microscope Tensile Stage		\$60.00 /hr
ATM Sonic sifter		\$26.25 /hr

Thin Film Deposition, and Material Processing

Varian Thermal Bell Jar Evaporator Clark Hall		\$163.20 /use
Sputter Deposition		\$224.40 /use
KJL Magnetron Sputtering Tool		\$300.00 /sample
Neocera EX200 Pulsed Laser Deposition System	114.75 +	\$23.00 /hr
KSV-NIMA-KN4010 Dip Coater	\$20.4 +	\$42.00 /hr
KSV-NIMA-KN2002 Langmuir Blodgett Trough	\$40 +	\$42.00 /hr
Laurell WS-400A Spin Coater	\$30 +	\$42.00 /hr

Heat Treating

Lindberg Vacuum Tube Furnace (Clark Hall)	\$22 +	\$5.61 /hr
All controlled atmosphere tube furnaces, Bard Hall	\$22 +	\$5.61 /hr
All other furnaces and ovens (Labtemp, Lindberg, Vulcan, Hotpack, National)	\$12.25 +	\$3.72 /hr

Electronic & Magnetic Measurements

Quantum Design Physical Property Measurement Systems (PPMS)	\$71.4 +	\$32.15 /hr
Lakeshore Tabletop Magnetic-Cryogenic Probe System		\$31.50 /hr
Cascade CPS-06 Four Point Probe	\$18 +	\$31.50 /hr

Sample Preparation, Cutting, Polishing, etc.

Sample Prep

Enerpac Hydraulic Press		\$26.25 /hr
Buehler Simplemet II mounting press	\$20.4 +	\$26.25 /hr
Inert Gas Glove Box		\$43.00 /use
Ball Mill		\$15.75 /hr
Spex 8000 MIXER /MILL		\$42.00 /hr
Garlock GEM-T Jet mill		\$26.25 /hr

Cutting/Cleaning/Polishing

MicroMech Wafering Machine	\$31.5 +	\$52.50 /hr
Wale Diamond Band Saw		\$42.00 /hr
Glass Bead Abrasive Unit (sand blasting)-Clark		\$42.00 /hr
SS White Sand Blasting Unit	\$31.5 +	\$42.00 /hr
Buehler SiC Grinding Papers-Bard		\$52.50 /use
Struers Rotopol		\$63.00 /hr
Branson Ultrasonic Bath (large)	\$22	\$21.00 /hr

Welding/Bonding

Stationary Spot Welder Hughes HRW250B (Clark Hall)		\$22.00 /use
WestBond-747630E Wire Bonder	\$15.3 +	\$30.60 /hr
TPT HB05 Manual Wire Bonder	\$15.3 +	\$30.60 /hr
Kulicke - Soffa 4500 manual bonder	\$15.3 +	\$30.60 /hr

Vacuum Equipment

Portable RGA Pump Stations (Extorr or SRS)	\$40 +	\$1.58 /hr
Varian 979 Port Leak Detector	\$32 +	\$3.94 /hr
Portable Turbo Pump Stations (Clark Hall or Bard Hall)	\$20.4 +	\$1.77 /hr
Rough Pumps (Clark Hall)	\$20.4 +	\$0.42 /hr

Test Equipment Lending Library

(more info at <http://www.ccmr.cornell.edu/instruments/test-equipment-library/>)

Extech DC and BK Precision AC Power Supplies (9047-9051)	\$18 +	0.01 /hr
Agilent E3631A Triple Output Power Supplies (9040-9046)	\$18 +	0.02 /hr
GPIB-to-USB Adaptors (9180-9183)	\$18 +	\$0.033 /hr
HP 3325A Function Generators (9072-9076)	\$18 +	\$0.072 /hr
HP 3325A Function Generator with HV option (9077)	\$18 +	\$0.085 /hr
HP 8657B 2GHz Signal Generator (9085)	\$18 +	\$0.27 /hr
FW Bell Hall Probes (9140-9144)	\$18 +	\$0.085 /hr
Extech IRC40 250C Thermal Imager (9152)	\$18 +	\$0.0837 /hr
Optical Pyrometer-Portable-Bard Hall	\$18 +	\$0.01 /hr
Signal Recovery 5113 Preamplifiers (9024-9025)	\$18 +	0.134 /hr
Agilent 33521A Arbitrary Waveform Generator (9078)	\$18 +	0.134 /hr
Stanford Research SR560 Low Noise Amplifiers (9026-9031)	\$18 +	0.144 /hr
HP 85662A Spectrum Analyzer (9130)	\$18 +	0.15 /hr
Tektronix TDS2024 Four Channel Digital Oscilloscopes (9101-9104)	\$18 +	0.17 /hr
DL Instruments DL1121 Preamplifiers (9020-9022)	\$18 +	0.20 /hr
Yokogawa 7651 DC Programmable Power Sources (9060-9065)	\$18 +	0.2 /hr
Signal Recovery 7265 Lock-in Amplifier (9001-9009, 9017)	\$18 +	0.27 /hr
Stanford Research SR844 RF Lock-in (9000)	\$18 +	0.53 /hr
Keithley 6430 Sub-femtoamp Source Meter (9160)	\$18 +	0.66 /hr
Agilent 4284A Precision LCR Meter (9171)	\$18 +	0.85 /hr
Tektronix TDS8000 Digital Sampling Oscilloscopes (9107-9109)	\$18 +	\$0.125 /hr
Agilent E8257 PSG Analog Signal Generators (9081-9084)	\$18 +	\$1.275 /hr
Picosecond 10070A Pulse Generators (9091-9092)	\$18 +	\$0.92 /hr
Picosecond 10300B Pulse Generators (9093)	\$18 +	\$1.25 /hr
LeCroy 8500A Wavemaster Oscilloscope (9112)	\$18 +	\$1.25 /hr
LeCroy SDA11000 Oscilloscope (9113)	\$18 +	\$1.25 /hr
Agilent 8722ES Network Analyzer (9123)	\$18 +	\$1.275 /hr
Agilent 8565E Spectrum Analyzer (9132)	\$18 +	\$1.275 /hr
Andeen Hagerling DCPAX/TP1 Capacitance/Loss Bridge (9170)	\$18 +	\$1.275 /hr
Agilent E4991A RF Impedance/Material Analyzer (9201)	\$18 +	\$1.275 /hr
Agilent B1500 Device Analyzer (9203)	\$18 +	\$1.275 /hr