

## INTERNAL CHARGES FOR EQUIPMENT IN THE GRADUATE CENTER FOR MATERIALS RESEARCH

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## Effective September 1, 2023 thru August 31, 2024

The Graduate Center for Materials Research (MRC) has a large variety of research equipment that is available for use by Missouri S&T faculty, staff, and students. For internal users, i.e., those users who pay via a Missouri S&T mocode, the equipment use charges are based on the costs incurred by MRC and are in accordance with University Policy and Office of Management and Budget (OMB) Circular A-21, "Cost Principles for Education Institutions". External users are charged for supplies, equipment depreciation, and operator salary via a pre-arranged Non-University Use of University Equipment, Facilities, and Resources Contract.

Missouri S&T faculty/students wanting to use this equipment should contact the persons listed below. Special scheduling arrangements can often be made to fit unique circumstances.

#### **Equipment**

### **Person to Contact for Scheduling**

Director of MRC (Ext. 4873)

PrismaE SEM Dr. Clarissa Wisner (Ext. 4393) **RAITH e-Line PLUS** Dr. Clarissa Wisner (Ext. 4393) Dualbeam FIB/SEM Dr. Jincheng Bai (Ext. 6467) Helios Hydra CX (Dualbeam FIB) Dr. Jincheng Bai (Ext. 6467) **TEM** Dr. Ahmed Darwish (Ext. 6467) TGA/DTA/Digital Image System Dr. Eric Bohannan (Ext. 4534) X-Ray Diffraction Dr. Eric Bohannan (Ext. 4534) AFM/STM Dr. Eric Bohannan (Ext. 4534) TA Q600 Thermal Analysis Dr. Eric Bohannan (Ext. 4534) Netzsch Thermal Analysis Dr. Eric Bohannan (Ext. 4534) Horiba GD Profiler 2 James Claypool (Ext. 4358) Xradia Micro CT James Claypool (Ext. 4358) Nanoindenter James Claypool (Ext. 4358) XPS NEXSA Brian Porter (Ext. 4395) XRF – Oxford X-Supreme 8000 Brian Porter (Ext. 4395) All other Fred Eickelmann (Ext. 4356) or

# GRADUATE CENTER FOR MATERIALS RESEARCH EQUIPMENT USE CHARGES

## Charges Billed to MoCode Account

I.	X-Ray Diffraction Units Philips Thin Film (MRD)			
	1. Internal Use Rate	\$171.00 hr		
	2. Internal Use Rate for Unassisted User	\$130.00/hr		
	Philips MPD Powder			
	1. Internal Use Rate	\$60.00/hr		
	2. Internal Use Rate for Unassisted User	\$32.00/hr		
II.	Thermal Analyzers			
	TA-DSC	<b></b>		
	1. Internal Use Rate	\$9.00/hr		
	2. Internal Use Rate for Unassisted User	\$1.00/hr		
III.	Scanning Tunneling/Atomic Force Microscope (AFM)	Φ1. <b>7</b> . ΟΟ/1		
	1. Internal Use Rate	\$15.00/hr		
	2. Internal Use Rate for Unassisted User	\$1.00/hr		
IV.	<b>Dualbeam Focused Ion Beam/Scanning Electron Microscope (FII</b>	·		
	1. Internal Use Rate	\$75.00/hr		
	2. Internal Use Rate for Unassisted User	\$60.00/hr		
V.	Helios Hydra CX (Dualbeam FIB)			
	1. Internal Use Rate	\$73.00/hr		
	2. Internal Use Rate for Unassisted User	\$43.00/hr		
VI.	i ( )			
	(Tecnai F20 STEM)	<b></b>		
	1. Internal Use Rate	\$120.00/hr		
	2. Internal Use Rate for Unassisted User	\$85.00/hr		
VII. RAITH e-Line PLUS E-beam Lithography				
	1. Internal Use Rate	\$80.00/hr		
	2. Internal Use Rate for Unassisted User	\$50.00/hr		
VIII. XRF Oxford X-Supreme 8000				
	(Energy Dispersive X-ray Fluorescence)			
	1. Internal Use Rate	\$44.00/hr		
	2. Internal Use Rate for Unassisted User	\$20.00/hr		
IX. TA Q600 SDT Thermal Analysis				
	(Simultaneous DSC-TGA)			
	1. Internal Use Rate	\$133.00/hr		
	2. Internal Use Rate for Unassisted User	\$102.00/hr		

<b>X.</b>	PrismaE SEM			
	1.	Internal Use Rate	\$44.00/hr	
	2.	Internal Use Rate for Unassisted User	\$12.00/hr	
XI.	. XPS NEXSA			
	1.	Internal Use Rate	\$29.00/hr	
	2.	Internal Use Rate for Unassisted User	\$10.00/hr	
XII. Xradia Micro CT				
	1.	Internal Use Rate	\$214.00/hr	
	2.	Internal Use Rate for Unassisted User	\$182.00/hr	
XIII. Netzsch Thermal Analysis				
	1.	Internal Use Rate	\$21.00/hr	
	2.	Internal Use Rate for Unassisted User	\$1.00/hr	
XIV. Horiba GD Profiler 2				
	1.	Internal Use Rate	\$24.00/hr	
	2.	Internal Use Rate for Unassisted User	\$1.00/hr	
XV.	XV. Nanoindenter			
	1.	Internal Use Rate	\$63.00/hr	
	2.	Internal Use Rate for Unassisted User	\$23.00/hr	