

Major Equipment

Housed in shared spaces within the departments of Chemistry and PAGS (Physics, Astronomy, and Geosciences) as well as the UEBL (Urban Environmental Biogeochemistry Lab)

Updated Sept. 2018

Chromatography

Type	Model	Features	Acquired
Flash	Teledyne-Isco CombiFlash Ff200i	variable wavelength UV-vis and ELSD	2012
GC-FID	HP 6890	HP 7683 100 position autosampler	1999
GC-FID	Agilent 7890a	Dual injector/FID HP 7683 100 position autosampler	2014
GC-MS	HP 6890	HP 5973 MSD HP 7683 100 position autosampler	1999
GC-MS	Agilent 7890a	Agilent 5975C MSD 7693B 150 position autosampler	2015
GC-MS/ECD Dual injection	Agilent 7890a	Agilent 5975C MSD μ ECD HP 7693B 150 position autosampler	2009
HPLC	Agilent 1200	100 position autosampler DAD and fluorescence fraction collector	2009
HPLC	Agilent 1260	DAD 100 position autosampler	2014
HPLC	Shimadzu	105 position autosampler DAD and fluorescence	2005
IC	Dionex ICS-5000	100 position autosampler dual anion/cation capability	2010
UPLC-MS/MS	Waters H-Class UPLC With Xevo G2-XS qTOF	4 column thermostat	2016

Microscopy

Type	Model	Features	Acquired
AFM	DI Nanoscope IIIa	electrochemical cell	1999
Comparison (2)	Leica FS CB	dual Leica DM EP polarizing	2010
FT-IR	Centaurus	Nexus 670 spectrometer	2003
Optical	Nikon LV100	polarizing fluorescence	2007
Optical (16)	Leica		2013

SEM	Phenom ProX	EDS	2016
Miscellaneous			
Type	Model	Features	Acquired
Auto-fluxer	Claisse Le Neo	For XRF sample prep	2018
C/N analyzer	Shimadzu TOC-V	TNM-1 nitrogen module ASI-V 68 position autosampler SSM-5000A solid sample combustor	2004
Centrifugal evaporator	CentiVap Complete		2013
DSC	Mettler DSC 20		2004
Discrete analyzer	SEAL Analytical AQ1	Automated total P, Si, NH ₃	2016
Elemental analyzer	Elementar Vario III	C, H, N, O, S	2015
Genetic analyzer	ABI 3100	upgraded in 2012	2004
Genetic analyzer	ABI 3500		2016
Lab Automation Workstation (2)	Beckman Coulter Biomek 2000		2013
Microwave reactor	CEM Mars		2010
Magnetic Susceptibility Balance	Sherwood Scientific		2016
Microwave reactor	CEM MARS 6		2013
Potentiostat	EG&G Parc 263A		2000
qPCR	ABI Prism 7000		2004
Soxhlet extractor	Foss Soxtec 2043		2009
XRD	Bruker D8 Discover	GADDS detector	2005

Spectroscopy/Spectrometry

Type	Model	Features	Acquired
CD	Jasco J-815		2010
FAAS	Thermo SOLAAR S4	Cetac ASX-260 120 position autosampler GFS97 graphite furnace with 60 position autosampler VP100 vapor system	2006
Fluorometer	Jobin-Yvon FluoroMax-4	sample heater/cooler dual polarizers	2008
FT-IR	Nicolet 320		1999

FT-IR	Nicolet 360		1999
FT-IR	Nicolet 670	ATR Temperature control 10x objective	2016
FT-IR (2)	Nicolet iS10	Smart iTR	2012/13
FT-IR	Perkin Elmer 1621		1999
ICP-MS	Thermo PQ ExCell	Cetac 240 position autosampler	2001
ICP-TOFMS	GBC OptiMass 9500	cryocell Cetac LSX-213 laser ablation system	2010
NMR	Jeol 400SS (400 MHz)	24 position autosampler	2010
Polarimeter	Perkin Elmer 343		2004
Polarimeter	Schmidt + Haensch Polartronic H		2016
Raman	Rigaku		2017
UV-Vis (3)	Cary 50		1999
UV-Vis	Cary 60		2013
UV-Vis	Cary 100		1999
UV-Vis	Ocean Optics USB4000		2009
XRF	Bruker AXS S4 Explorer	Wavelength-dispersive	2004
XRF	Bruker AXS S2 Ranger	Energy-dispersive	2015