

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 $\mu$ ECD HP 7693B 150 position autosampler	

SEM	Phenom ProX	EDS	2016
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 Elemental analyzer	SEAL Analytical AQ1	Automated total P, Si, NH <sub>3</sub>	2016

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
Daman	Rigaku		2017