

## Laser ablation

Laser type	GeoLas C, Lambda Physics Compex 100, 193 nm
Scan length (mm)	4.6
Energy density ( $\text{J cm}^{-2}$ )	4.7
Crater size ( $\mu\text{m}$ )	160x160
Repetition rate (Hz)	10
Scanning speed ( $\mu\text{m s}^{-1}$ )	20
Cell	Sedimentcell (LDHCLA)

## ICP-MS

Instrument	Agilent 7500 cs
RF power (W)	1500
Carrier gas >>He ( $\text{L min}^{-1}$ )	1
Nebulizer gas, ( $\text{L min}^{-1}$ )	0.79
Aux. Gas, Ar ( $\text{L min}^{-1}$ )	0.84
Plasma gas, Ar ( $\text{L min}^{-1}$ )	17
Dwell time (ms)	10
Sweep time (ms)	560

NIST 612: 12C, 13C, 23Na, 25Mg, 26Mg, 27Al, 29Si, 30Si, 31P, 34S, 35Cl, 39K, 42Ca, 44Ca, 45Sc, 47Ti, 51V, 52Cr, 53Cr, 55Mn, 56Fe, 57Fe, 62Ni, 63Cu, 66Zn, 79Br, 85Rb, 86Sr, 88Sr, 89Y, 90Zr, 93Nb, 95Mo, 127I, 135Ba, 137Ba, La138, 139La, 140Ce, 141Pr, 146Nd, 147Sm, 151Eu, 153Eu, 165Ho, 166Er, 178Hf, 208Pb, 232Th, 238U