Data reporting template (metadata) for LA-ICP-MS

(adapted from http://www.plasmage.org/recommendations)

Laboratory & Sample Preparation	
Laboratory name	School of Environment, Earth and Ecosystem Sciences, Open University, UK
Sample type/mineral	Mafic granulites/Amp, Pl, Cpx, Opx
Sample preparation	Polished thin sections
Laser ablation system	
Make, Model & type	Photon Machines Analyte G2 193 nm excimer laser
Ablation cell & volume	HelEx II 2-volume cell
Laser wavelength (nm)	193 nm
Pulse width (ns)	4 ns
Fluence (J/cm^2)	3.63 J/cm^2
Repetition rate (Hz)	10 Hz
Ablation duration (s)	30 s
Spot diameter (μm)	50 μm, reduced to 40 μm for certain interstitial Pl films
Sampling mode / pattern	static spots
Carrier gas	100% He in the cell, Ar make-up gas combined in a mixing bulb down stream.
Cell carrier gas flow (l/min)	0.9 l/min He
ICP-MS Instrument	
Make, Model & type	Agilent 8800 ICP-QQQ-MS
Sample introduction	Ablation aerosol in He & Ar gas mix
RF power (W)	1250 W
Ar carrier gas flow (l/min)	~0.77 l/min
Detection system	Dual-mode discrete dynode electron multiplier
Masses measured; Integration time per peak/dwell times (ms)	^{7}Li 0.005; ^{9}Be 0.005; ^{23}Na 0.002; ^{24}Mg 0.005; ^{27}Al 0.002; ^{29}Si 0.002; ^{31}P 0.01; ^{39}K 0.005; ^{43}Ca 0.005; ^{45}Sc 0.005; ^{49}Ti 0.005; ^{51}V 0.005; ^{53}Cr 0.005; ^{55}Mn 0.005; ^{56}Fe 0.005; ^{59}Co 0.005; ^{60}Ni 0.005; ^{65}Cu 0.005; ^{66}Zn 0.005; ^{71}Ga 0.005; ^{74}Ge 0.005; ^{85}Rb 0.005; ^{88}Sr 0.005; ^{89}Y 0.005; ^{90}Zr 0.005; ^{93}Nb 0.01; ^{95}Mo 0.01; ^{111}Cd 0.01; ^{115}In 0.01; ^{118}Sn 0.01; ^{121}Sb 0.02; ^{133}Cs 0.02; ^{137}Ba 0.01; ^{139}La 0.01; ^{140}Ce 0.01; ^{141}Pr 0.01; ^{146}Nd 0.01; ^{147}Sm 0.01; ^{153}Eu 0.01; ^{157}Gd 0.01; ^{159}Tb 0.01; ^{163}Dy 0.01; ^{165}Ho 0.01; ^{166}Er 0.01; ^{169}Tm 0.01; ^{172}Yb 0.01; ^{175}Lu 0.01; ^{177}Hf 0.01; ^{181}Ta 0.01; ^{182}W 0.02; ^{205}Tl 0.02; ^{208}Pb 0.02; ^{209}Bi 0.02; ^{232}Th 0.01; ^{238}U 0.01
Total integration time (s)	0.6504
Gas blank	30 seconds
Washout	40 seconds
Data Processing	
Calibration strategy	SRM-NIST 612 (primary for trace elements), BCR-2G (secondary for traces, primary for majors) every ~20 analyses
Reference Material info	SRM-NIST 612 (Jenner and O'Neill, 2012) BCR-2G (Jenner and O'Neill, 2012 & in house long-term

	averages)
Data processing package used	Iolite v3.71; DRS: X_Trace_Elements_IS; internal standard ^{29}Si
Uncertainty level & Quality control / Validation	BCR-2G within 3-10% of the preferred value depending on element concentration and homogeneity of secondary standard. Major element concentrations obtained by LA-ICP-MS were compared to those measured by EMPA for consistency checks and data defines on a 1:1 line