Table S1: MC-ICPMS collector configurations with isotope abundances and significant interferences for Pt stable isotope measurements, and collector configurations for Pb isotope cycle in Pb doped measurements, with isotope abundances and Pt based interferences on Pb isotopes.

Pt measurements

Collector	Nu Plasma (NZ)	H6	-	H5	-	H4	H3	H2	H1	Ax	L1	L2	IC0	L3	IC1	L4	IC2	L5
	Neptune (DK)			H4		H3		H2	H1	Ax		L1		L2		L3		
Mass (amu)				200		198		196	195	194	193	192		190		188		
Hg				23.1		10.1		0.2										
Pt						7.2		25.3	33.8	32.9		0.79		0.01				
Ir											62.7							
Os												41		26.4		13.3		
Significant molecular interferences				$^{199}Hg^{1}H$ $^{188}Os^{12}C$ $^{187}Re^{13}C$ $^{186}W^{14}N$ $^{186}Os^{14}N$ $^{185}Re^{15}N$ $^{184}W^{16}O$ $^{182}W^{18}O$ $^{165}Ho^{35}Cl$ $^{163}Dy^{37}Cl$ $^{164}Dy^{36}Ar$ $^{162}Dy^{38}Ar$ $^{160}Gd^{40}Ar$ $^{160}Dy^{40}Ar$		$^{197}Au^{1}H$ $^{186}W^{12}C$ $^{186}Os^{12}C$ $^{185}Re^{13}C$ $^{184}W^{14}N$ $^{184}Os^{14}N$ $^{183}W^{15}N$ $^{182}W^{16}O$ $^{181}Ta^{17}O$ $^{163}Dy^{35}Cl$ $^{161}Dy^{37}Cl$ $^{160}Gd^{38}Ar$ $^{158}Gd^{40}Ar$ $^{158}Dy^{40}Ar$		$^{195}Pt^{1}H$ $^{184}W^{12}C$ $^{184}Os^{12}C$ $^{182}W^{14}N$ $^{181}Ta^{15}N$ $^{180}Hf^{16}O$ $^{180}W^{16}O$ $^{178}Hf^{18}O$ $^{161}Dy^{35}Cl$ $^{159}Tb^{37}Cl$ $^{160}Gd^{36}Ar$ $^{158}Gd^{38}Ar$ $^{156}Gd^{40}Ar$ $^{156}Dy^{40}Ar$		$^{194}Pt^{1}H$ $^{183}W^{12}C$ $^{182}W^{13}C$ $^{181}Ta^{14}N$ $^{180}Hf^{15}N$ $^{179}Hf^{16}O$ $^{178}Hf^{17}O$ $^{160}Gd^{35}Cl$ $^{160}Dy^{35}Cl$ $^{158}Gd^{37}Cl$ $^{158}Dy^{37}Cl$ $^{159}Tb^{36}Ar$ $^{155}Gd^{40}Ar$		$^{193}Ir^{1}H$ $^{182}W^{12}C$ $^{181}Ta^{13}C$ $^{180}Hf^{14}N$ $^{180}W^{14}N$ $^{178}Hf^{16}O$ $^{159}Tb^{35}Cl$ $^{157}Gd^{37}Cl$ $^{158}Gd^{36}Ar$ $^{156}Gd^{38}Ar$ $^{154}Gd^{40}Ar$		$^{191}Ir^{1}H$ $^{180}Hf^{12}C$ $^{180}W^{12}C$ $^{178}Hf^{14}N$ $^{176}Yb^{16}O$ $^{176}Lu^{16}O$ $^{176}Hf^{16}O$ $^{175}Lu^{17}O$ $^{174}Yb^{18}O$ $^{157}Gd^{35}Cl$ $^{156}Gd^{36}Ar$ $^{155}Gd^{37}Cl$ $^{152}Gd^{40}Ar$		$^{189}Os^{1}H$ $^{178}Hf^{12}C$ $^{176}Yb^{14}N$ $^{176}Lu^{14}N$ $^{176}Hf^{14}N$ $^{175}Lu^{15}N$ $^{174}Yb^{16}O$ $^{174}Hf^{16}O$ $^{172}Yb^{18}O$ $^{155}Gd^{35}Cl$ $^{153}Eu^{37}Cl$ $^{150}Nd^{40}Ar$		$^{187}Re^{1}H$ $^{187}Os^{1}H$ $^{176}Yb^{12}C$ $^{176}Lu^{12}C$ $^{176}Hf^{12}C$ $^{175}Lu^{13}C$ $^{174}Yb^{14}N$ $^{174}Hf^{14}N$ $^{172}Yb^{16}O$ $^{153}Eu^{35}Cl$ $^{151}Eu^{37}Cl$ $^{152}Sm^{36}Ar$ $^{148}Nd^{40}Ar$ $^{148}Sm^{40}Ar$		

Only two atom molecular interferences containing at least one major isotope (abundance > 20%), no isotope with an abundance < 0.02%, and with at least one component that is likely to be present in gas, air or acid are shown. Interferences on Pt are colour coded by resolution required to separate interference, where 1000-10000 = dark blue, 10000-20000 = light blue, 20000-100000 = orange, and >100000 = red.

Pb measurements

Collector	Nu Plasma (NZ)	H6	-	H5	-	H4	H3	H2	H1	Ax	L1	L2	IC0	L3	IC1	L4	IC2	L5
	Neptune (DK)			H4		H3		H2	H1	Ax		L1		L2		L3		
Mass (amu)								208	207	206		204						
Pb								52.4	22.1	24.1		1.4						
Pt based interferences								$^{192}Pt^{16}O$ $^{194}Pt^{14}N$ $^{196}Pt^{12}C$ $^{195}Pt^{13}C$	$^{192}Pt^{15}N$ $^{195}Pt^{12}C$ $^{194}Pt^{13}C$	$^{192}Pt^{14}N$ $^{194}Pt^{12}C$ $^{190}Pt^{16}O$								