

Supplementary information(ESI)

Table S1 HG-AFS operating parameters and SPE conditions

Parameters	Values
As hollow cathode lamp	
Primary current	60mA
Boost current	30mA
Quartz furnace height	8mm
Negative high voltage photomultiplier	270V
Reductant	1.5% (m/v) NaBH ₄ in 0.5% (m/v) NaOH
Sample acid concentration	10.8 mol L ⁻¹
Sample solution loading rate	0.5 mL min ⁻¹
Wash time	100 s
Elution solution concentration	0.06 mol L ⁻¹
Elution solution flow rate	15 mL min ⁻¹

Table S2 Operating conditions for CCT-ICP-MS

Isotope	⁷⁵ As
Internal standard	¹¹⁵ In
Rf power	1400 W
Cooling gas flow rate	13 L min ⁻¹
Auxiliary gas flow rate	0.8 L min ⁻¹
Nebuliser gas flow rate	0.95 ml min ⁻¹
Points per peak	5
Dwell time	100 ms
Detection mode	Peak jump
Collision/reaction gas	5% H ₂ - 95% He
Collision/reaction gas flow rate	5.45 mL min ⁻¹

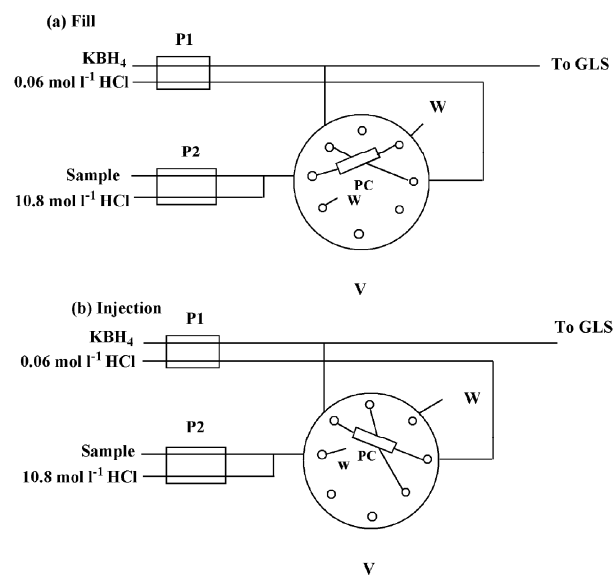


Fig. S1 FI manifold for the on-line separation and preconcentration, P1 and P2, peristaltic pump; W, waste; PC, SPE packed column; V, injection valve; GLS, gas-liquid separator.