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Supplementary Information

Proof-of-Concept: Interfacing the Liquid Sampling-Atmospheric Pressure Glow Discharge Ion Source with a Miniature Quadrupole Mass Spectrometer Towards Trace Metal Analysis in Cell Culture Media

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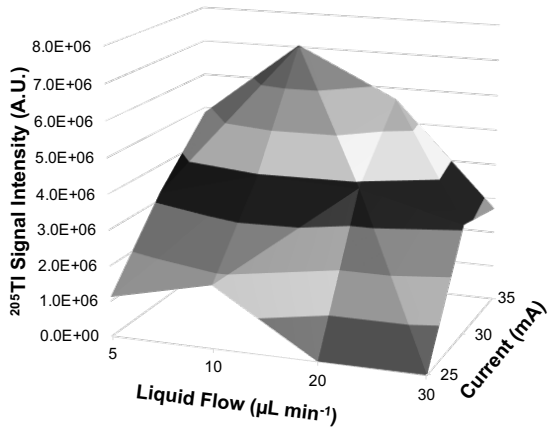
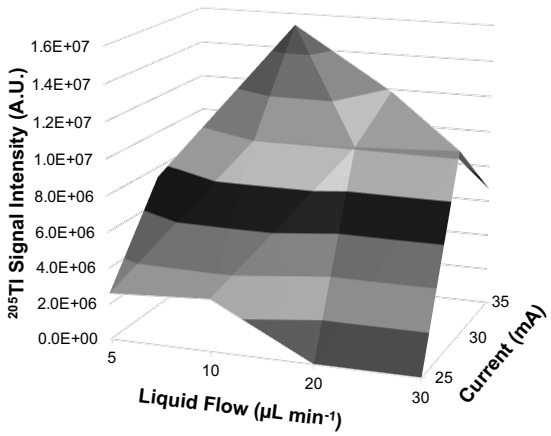
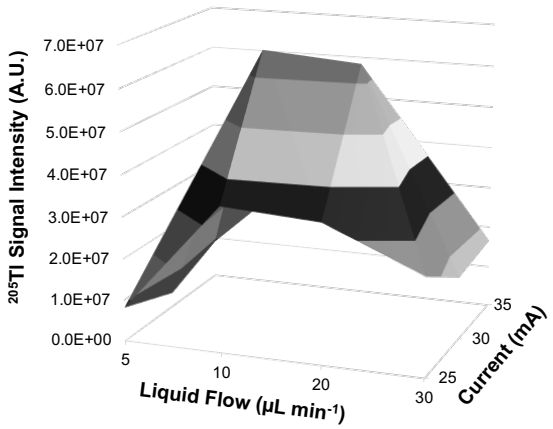
SI Fig. 1a



SI Fig. 1b

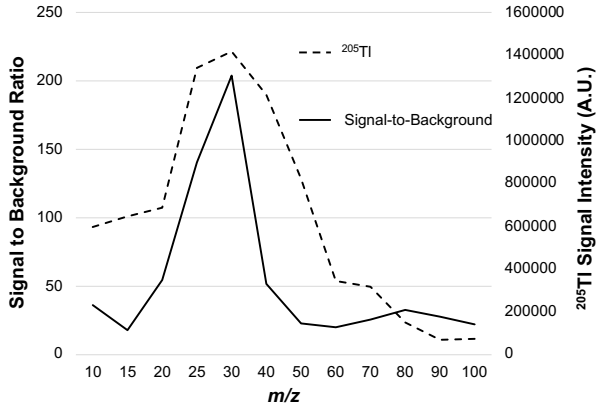


SI Fig. 1c



Supplementary Figure 1. Parametric evaluation of ^{205}Tl ion signal response (25 µg mL^{-1} in 2% HNO_3) as a function of discharge current and liquid flow rate at gas flow rates of a) 0.250 L min^{-1} b) 0.375 L min^{-1} c) 0.500 L min^{-1}

SI Fig. 2



Supplementary Figure 2. Evaluation of ^{205}Tl signal-to-background ratio as a function of the in-source CID potential. LS-APGD operating parameters were: current = 30 mA, gas flow rate = 0.5 L min^{-1}, and liquid flow rate of 10 µL min^{-1}.

Supplementary Table 1. Components of the LS-APGD ionization source and their manufacturers.

Component	Product	Manufacturer
Counter electrode	SS, weldable feedthrough	MDC Vacuum Products, LLC
Solution inner capillary	Silica, 280 μm i.d., 580 μm o.d.	Restek Corporation
Outer capillary	316 SS, 0.8 mm i.d., 1.6 mm o.d.	New England Small Tube Corp.
Power supply	SL60	Spellman High Voltage Electronics Corporation
Syringe pump	NE-1000	New Era Pump Systems, Inc.