Determination of dissolved zinc in seawater using micro-Sequential Injection lab-on-valve with fluorescence detection

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Electronic Supplementary Information

Table S1. FIALab for Windows protocol script commands for the determination of

Zn^{2+} in seawater using FluoZin-3 and the proposed µSI-LOV manifold.

SCRIPT COMMANDS	NOTES
'ASPIRATE CARRIER Syringe Pump Valve Out Multiposition Valve carrier Syringe Pump Flowrate (microliter/sec) 200 Syringe Pump Aspirate (microliter) 500 Syringe Pump Delay Until Done	*Carrier (0.25M CH_3COONH_4, pH 7.5) is aspirated via LOV to prevent Zn^{2+} contamination from the glass barrel of the syringe pump*
'FLUSH FLOW CELL Multiposition Valve flowcell Syringe Pump Flowrate (microliter/sec) 400 Syringe Pump Dispense (microliter) 200 Syringe Pump Delay Until Done	*This flushing step at high flow rate (400µL/s) ensures no carryover and flushes potential air bubbles out of flow cell*
'ASPIRATE REAGENT Multiposition Valve reagent Syringe Pump Flowrate (microliter/sec) 25 Syringe Pump Aspirate (microliter) 50 Syringe Pump Delay Until Done	*Reagent consists of 10µM FZ3 in 0.25M CH_3COONH_4, pH 7.5, which is purified through a metal chelating column prior use (see text)*
'ASPIRATE SAMPLE Multiposition Valve sample Syringe Pump Flowrate (microliter/sec) 25 Syringe Pump Aspirate (microliter) 75 Syringe Pump Delay Until Done	
'FLOW REVERSAL AND DETECTION PMT Start Scans Delay (sec) 2 Multiposition Valve flowcell Syringe Pump Flowrate (microliter/sec) 10 Syringe Pump Empty Syringe Pump Delay Until Done PMT Stop Scans	*When USB4000-FL was used instead of PMT, "PMT Start Scans" and "PMT Stop Scans" commands were replaced by "Spectrometer Absorbance Scanning" and "Spectrometer Stop Scanning", respectively.*