

Communication

“Green” Three-Electrode Sensors Fabricated by Injection-Moulding for On-Site Stripping Voltammetric Determination of Trace In(III) and Tl(I)

Maria Pitsou ¹, Christos Kokkinos ¹, Anastasios Economou ^{1,*}, Peter R. Fielden ², Sara J. Baldock ² and Nickolas J. Goddard ³

¹ Laboratory of Analytical Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, 157 71 Athens, Greece; chemarpi18@gmail.com (M.P.); christok@chem.uoa.gr (C.K.)

² Department of Chemistry, Lancaster University, Lancaster LA1 4YB, UK; p.fielden@lancaster.ac.uk (P.R.F.); s.baldock@lancaster.ac.uk (S.J.B.)

³ Process Instruments (UK) Ltd., March Street, Burnley BB12 0BT, UK; nick.goddard@processinstruments.net

* Correspondence: aeconomou@chem.uoa.gr; Tel.: +30-210-727-4298

Supplementary Material

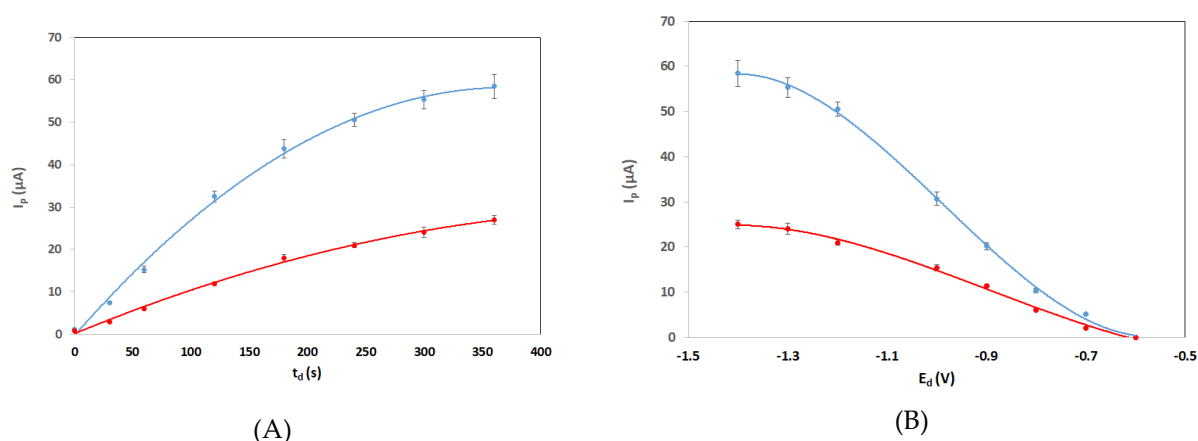


Figure S1. Effect of (A) the deposition time, (B) the deposition potential in the stripping peak heights of 50 $\mu g L^{-1}$ In(III) (blue traces) and 50 $\mu g L^{-1}$ Tl(I) (red traces). Conditions as in Table 1.

Table S1. Comparison of the LODs of the proposed sensors with existing electrodes modified with “green” metals.

Target metal	Electrode	LOD ($\mu g L^{-1}$)	Reference
Tl(I)	Bismuth	0.6	18
Tl(I)	Bismuth	2.1	17
Tl(I)	Tin	1.1	16
Tl(I), In(III)	Antimony	2 (Tl(I)), 8 (In(III))	19
Tl(I), In(III)	Antimony	1.4 (Tl(I)), 2.4 (In(III))	20
In(III)	Antimony	1.6	21
Tl(I), In(III)	Bismuth	1.5 (Tl(I)), 1.2 (In(III))	This work