Electrochemical properties of the $[SiW_{10}O_{36}(M_2O_2E_2)]^{6-}$ Polyoxometalates series (M = Mo(V) or W(V); E = S or O) in aqueous medium: application to the electro-analysis of iodates.

Justin Claude Kemmegne-Mbouguen,*[,a,b] Sébastien Floquet,*[,a] and Emmanuel Cadot[a]

a. Institut Lavoisier de Versailles, UVSQ, CNRS, Université Paris-Saclay, 45 avenue des Etats-Unis, 78035 Versailles Cedex, France. E-mail: sebastien.floquet@uvsq.fr

b. Laboratoire de Chimie Physique et Analytique Appliquée, Faculté des Sciences, Université de Yaoundé I,B.P. 812, Yaoundé, Cameroon. E-mail: jkemmeg@yahoo.fr

Supporting Information

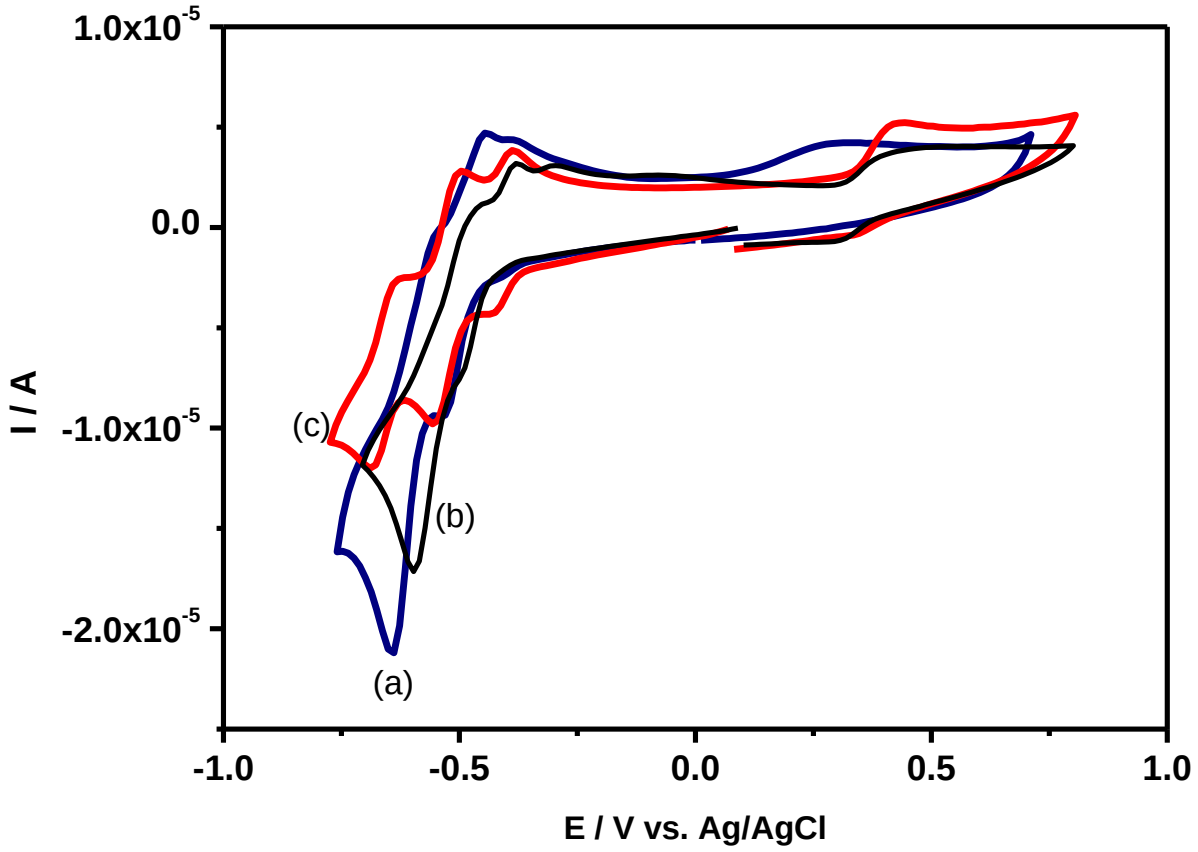

Figure S1: Cyclic voltammograms recorded at a glassy carbon electrode (v = 0.1 V s^{-1}) in 0.1 M H_2SO_4/Li_2SO_4 at pH = 1.5 of solutions containing 0.2 mM**{SiW_{10}-Mo_2O_4}** (a), **{SiW_{10}-$Mo_2O_2S_2$}** (b) and **{SiW_{10}-$W_2O_2S_2$}**(c),

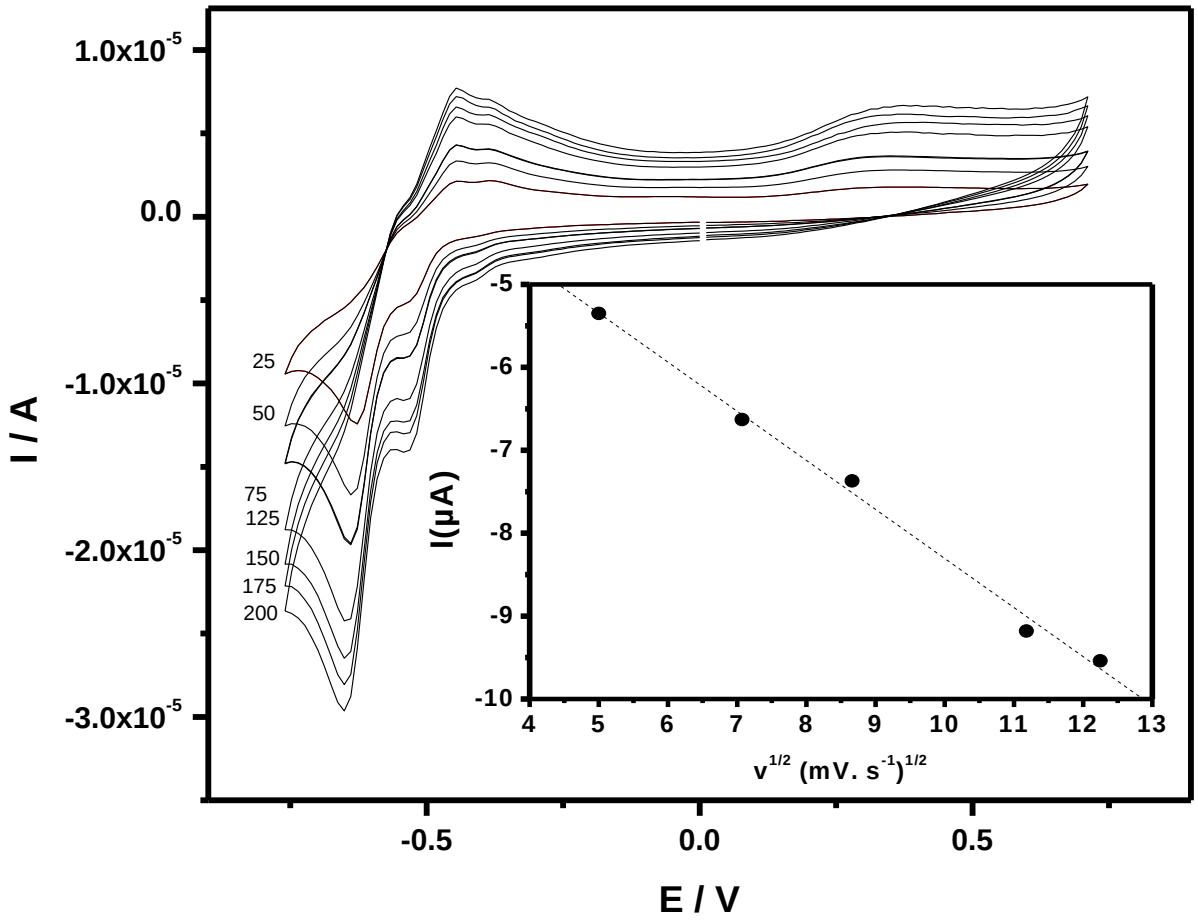

Figure S2. Cyclic voltammetry of 0.2 mM **{SiW_{10}-$Mo_2O_2S_2$}** recorded at a glassy carbon electrode in 0.1 M H_2SO_4/Li_2SO_4 (pH = 1.5) at various scan rate (v =25 – 200 mVs^{-1}). Inset: variation of I_{pc} of the first reduction versus $v^{1/2}$ indicating a diffusion controlled process.

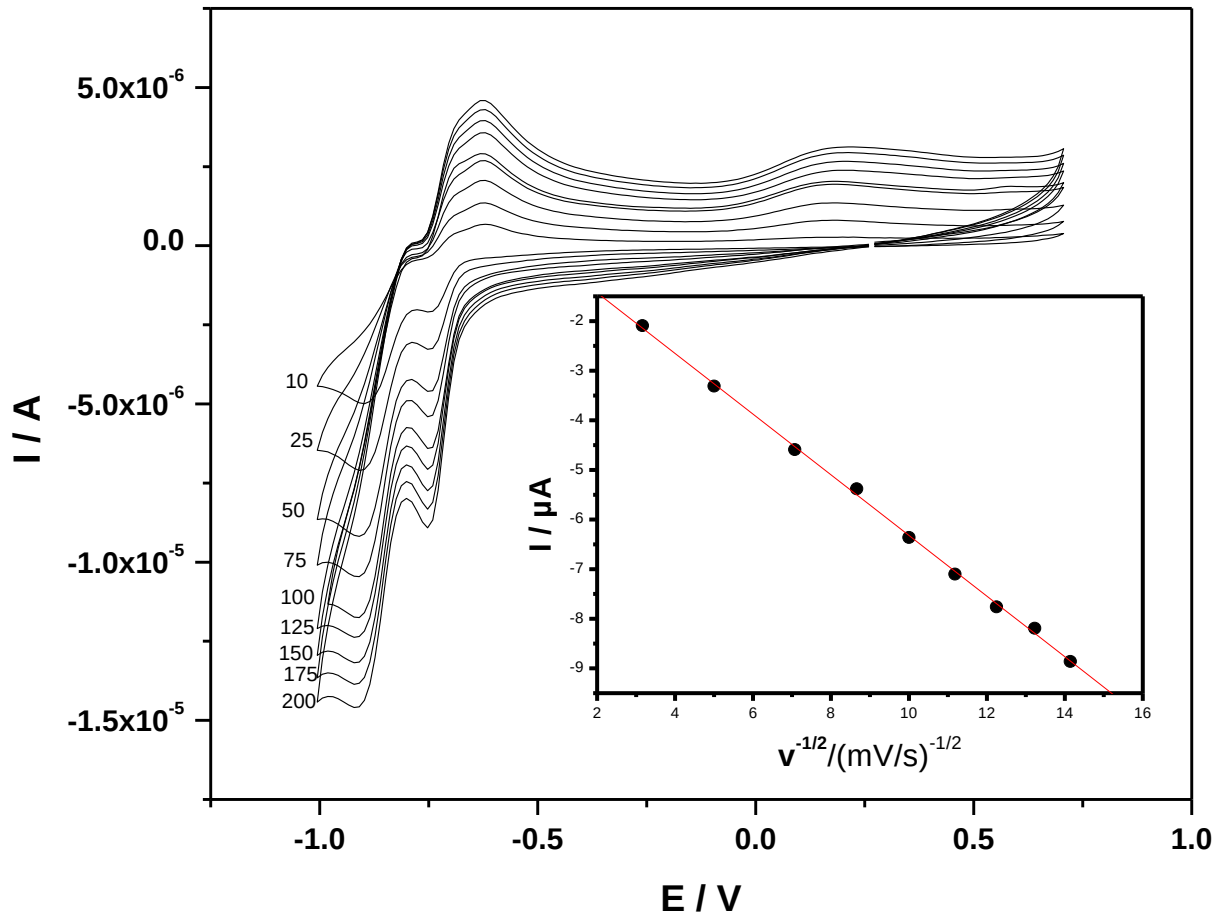

Figure S3: Cyclic voltammetry of 0.2 Mm **{SiW_{10}-Mo_2O_4}** recorded at a glassy carbon electrode in 0.1 M H_2SO_4/Li_2SO_4 (pH = 2) at various scan rate (v = 0.1 - 2 Vs^{-1}). Inset: I_{pc} of the first reduction versus $v^{1/2}$.

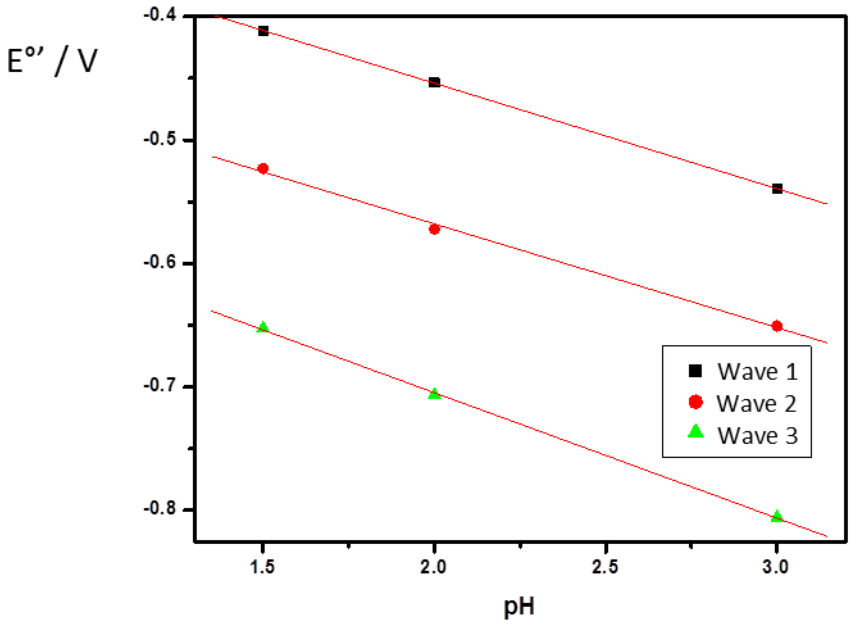

Figure S4. Dependence of E°’ versus the buffer pH for **{SiW_{10}-$W_2O_2S_2$}**.