

Supplementary material for ADSORPTION

Compared arsenic removal from aqueous solutions by synthetic mixed oxides and modified natural zeolites

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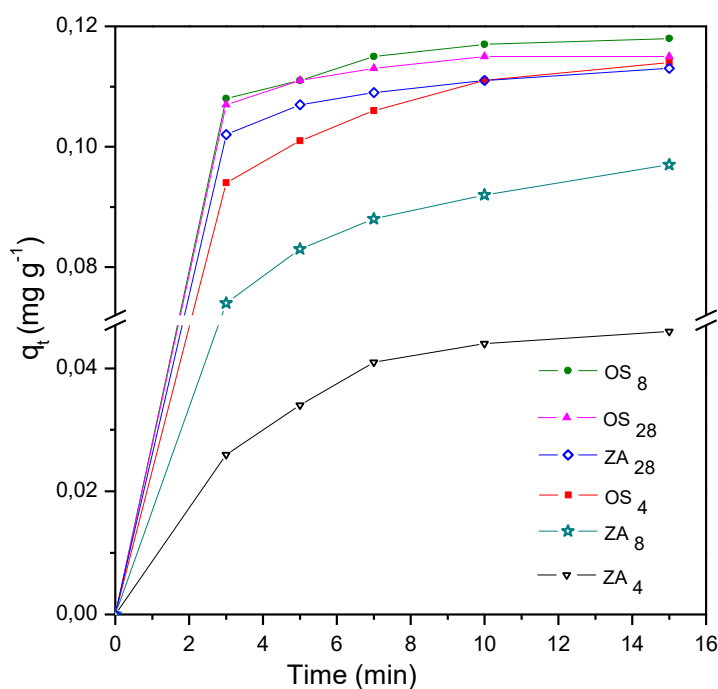


Figure 1: Time dependence of As(III) adsorption capacity. $C_0 = 170 \mu\text{g L}^{-1}$ of As(III). Adsorbent dose: 1.42 g L^{-1} .

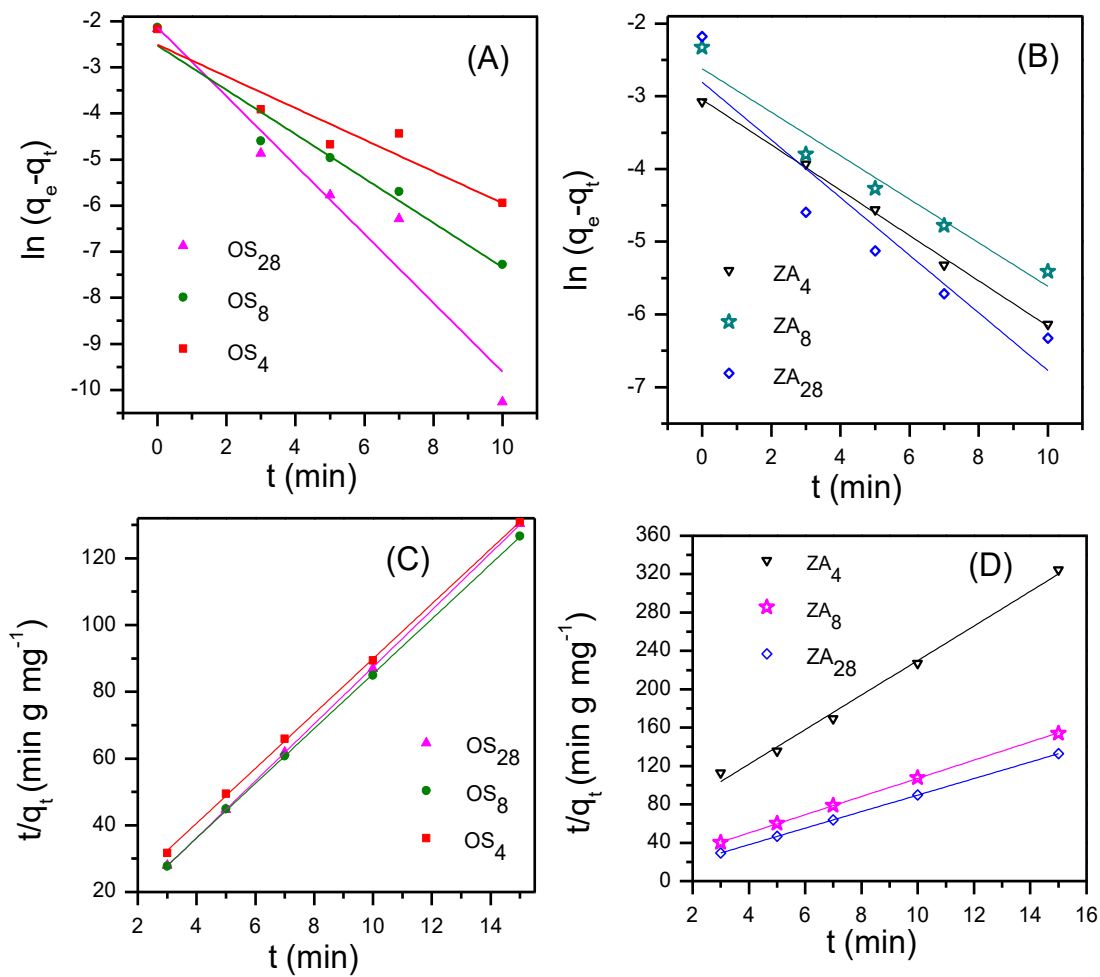


Figure 2: The Pseudo first (A, B) and Pseudo second (C, D) order kinetic models.

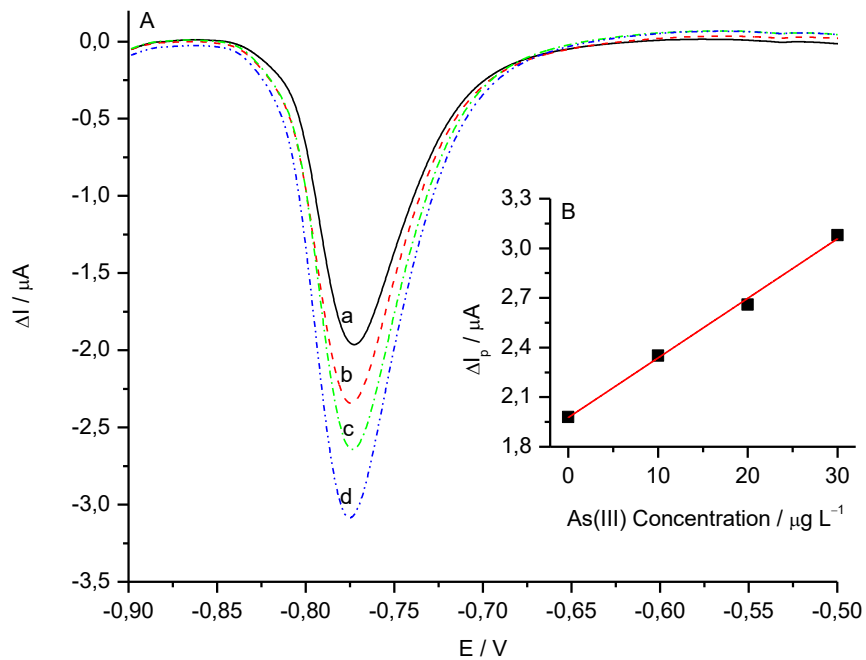


Figure 3. (A) Experimental differential current (ΔI) corresponding to CS-SWV of As(III) after: (a) exposing 70 mL of a solution with $170 \mu\text{g L}^{-1}$ of As(III) to 0.1g of ZA₄. Curves (b), (c) and (d) are standard additions of As(III) = $10 \mu\text{g L}^{-1}$. Other parameters are 1 M HCl, $f = 100 \text{ Hz}$, $E_{\text{sw}} = 50 \text{ mV}$, $dE = 5 \text{ mV}$, $t_{\text{ac}} = 20 \text{ s}$, and $E_{\text{ac}} = -0.4 \text{ V}$. (B) Dependence of ΔI_p on the concentration of As(III).

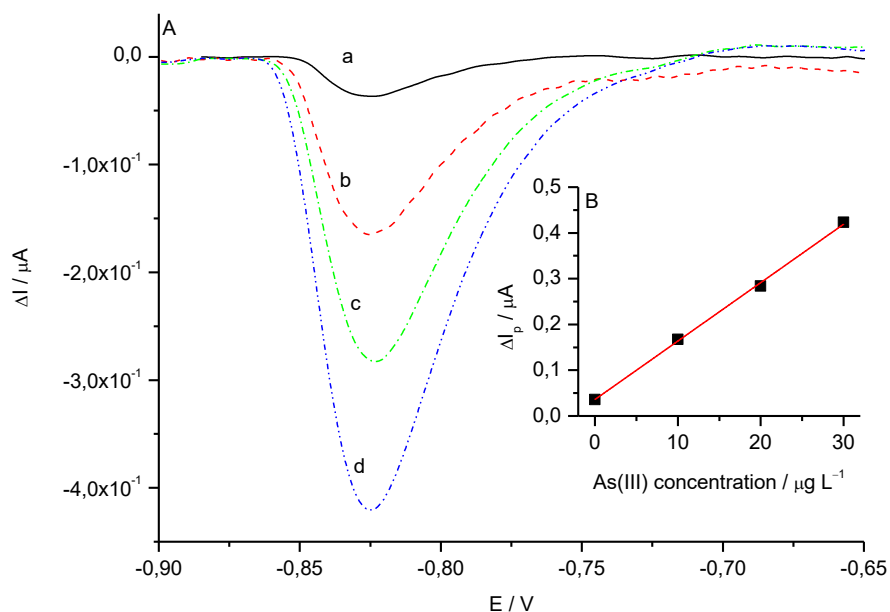


Figure 4. (A) Experimental differential current (ΔI) corresponding to CS-SWV of As(III) after: (a) exposing 70 mL of a solution with $170 \mu\text{g L}^{-1}$ of As(III) to 0.1g of OS₄. Curves (b), (c) and (d) are standard additions of As(III) = $10 \mu\text{g L}^{-1}$. Other parameters are 1 M HCl, $f = 100 \text{ Hz}$, $E_{\text{sw}} = 50 \text{ mV}$, $dE = 5 \text{ mV}$, $t_{\text{ac}} = 20 \text{ s}$, and $E_{\text{ac}} = -0.4 \text{ V}$. (B) Dependence of ΔI_p on the concentration of As(III).