

SUPPLEMENTARY MATERIAL TO
**An electrochemical and radiotracer investigation on lead
dioxide: influence of the deposition current and temperature**

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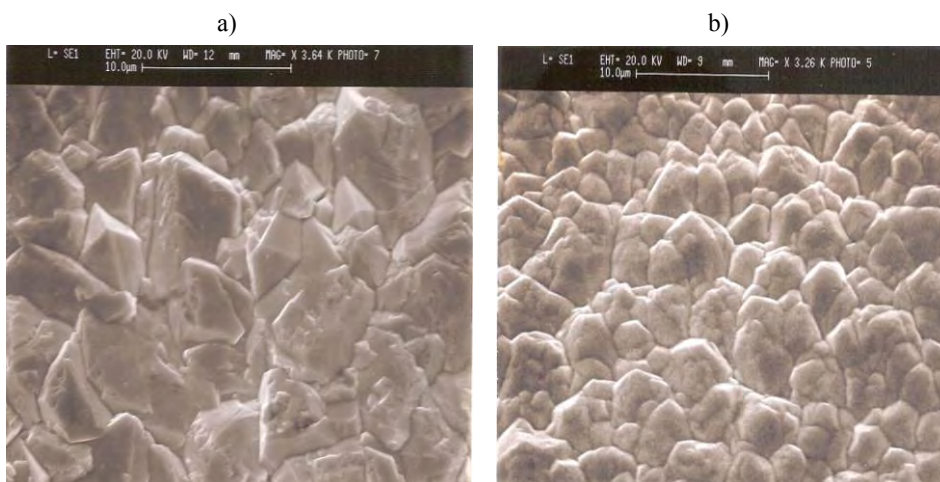


Fig. S-1. SEM micrographs for PbO₂ films deposited from 1 M HNO₃ + 1 M Pb(NO₃)₂ at a constant current: a) 5 and b) 20 mA cm⁻². Temperature: 23 °C.

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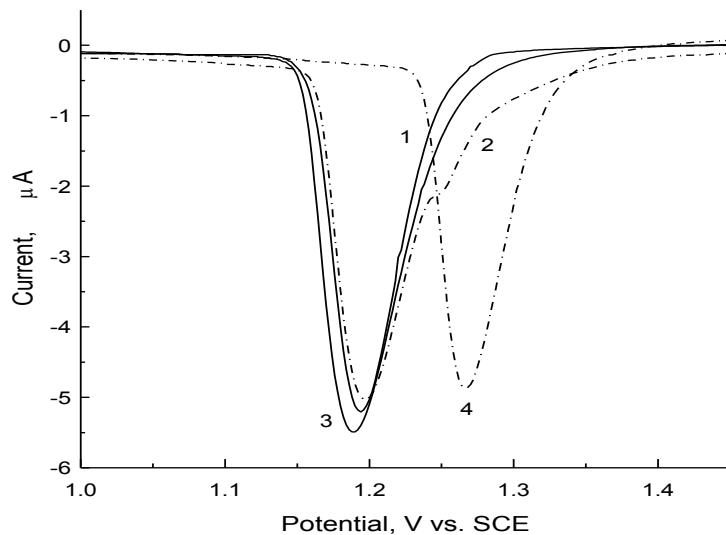


Fig. S-2. First scan linear sweep voltammetry curves for the reduction of PbO_2 prepared under different experimental conditions: 1) 5 mA cm^{-2} , $23 \text{ }^\circ\text{C}$; 2) 20 mA cm^{-2} , $23 \text{ }^\circ\text{C}$; 3) 5 mA cm^{-2} , $60 \text{ }^\circ\text{C}$; 4) 5 mA cm^{-2} , $23 \text{ }^\circ\text{C}$. Curves 1–3 refer to $\beta\text{-PbO}_2$, curve 3 to $\alpha\text{-PbO}_2$. Electrolyte: $0.5 \text{ M H}_2\text{SO}_4$. Scan rate: 5 mV s^{-1} .

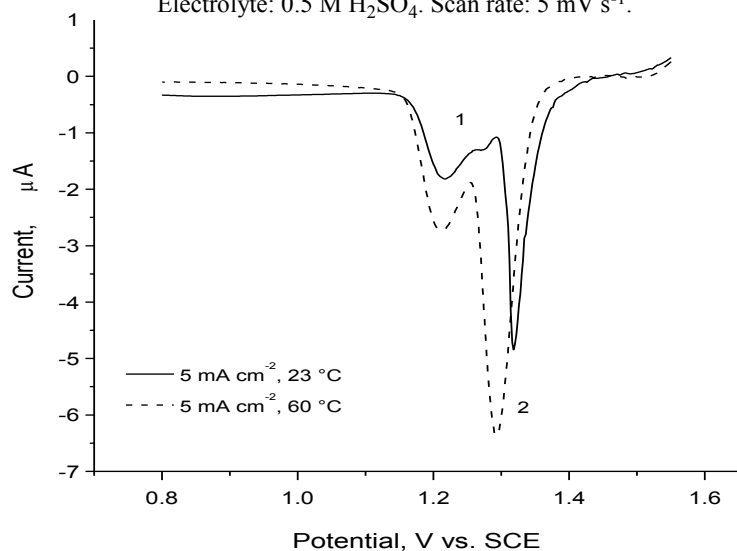


Fig. S-3. Linear sweep voltammetry curves for the reduction of $\beta\text{-PbO}_2$ prepared at different temperature. The curves refer to electrodes previously polarized at 1.95 V for 1200 s : 1) 5 mA cm^{-2} , $23 \text{ }^\circ\text{C}$; 2) 5 mA cm^{-2} , $60 \text{ }^\circ\text{C}$. Scan rate: 5 mV s^{-1} . Electrolyte: $0.5 \text{ M H}_2\text{SO}_4$.