Supplementary Materials

Improved Operation of Chloralkaline Reversible Cells with Mixed Metal Oxide Electrodes Made Using Microwaves

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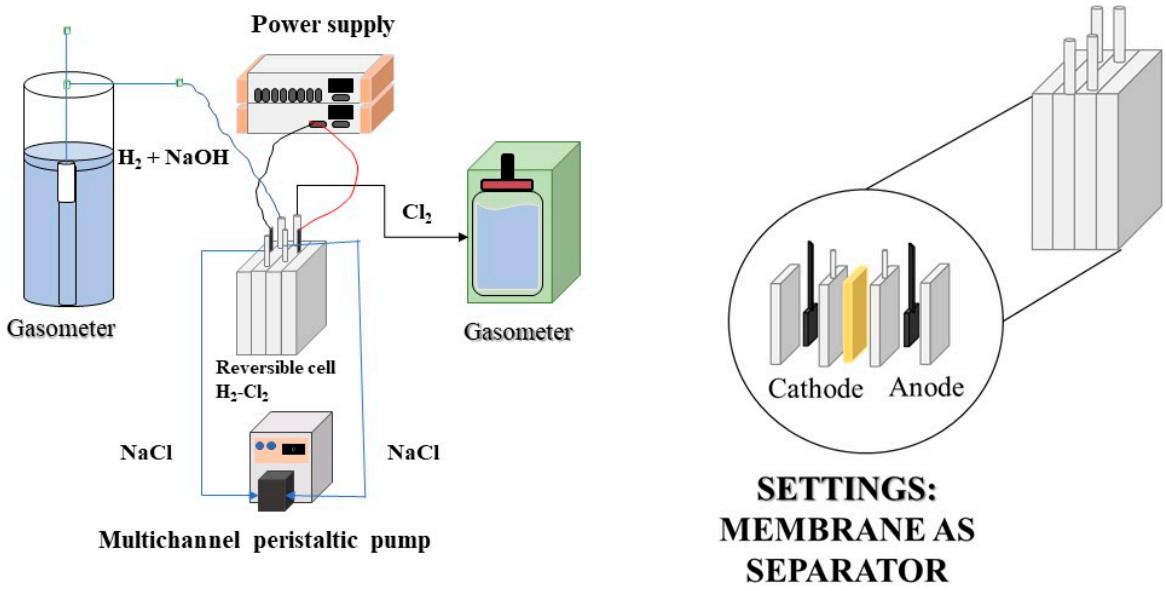

Figure S1. Schematic representation of the experimental setup used in this study, featuring gasometers in the anode and cathode compartments, power supply, electrochemical reversible cell, and a multichannel peristaltic pump. The right image provides an enlarged view of the reactor.

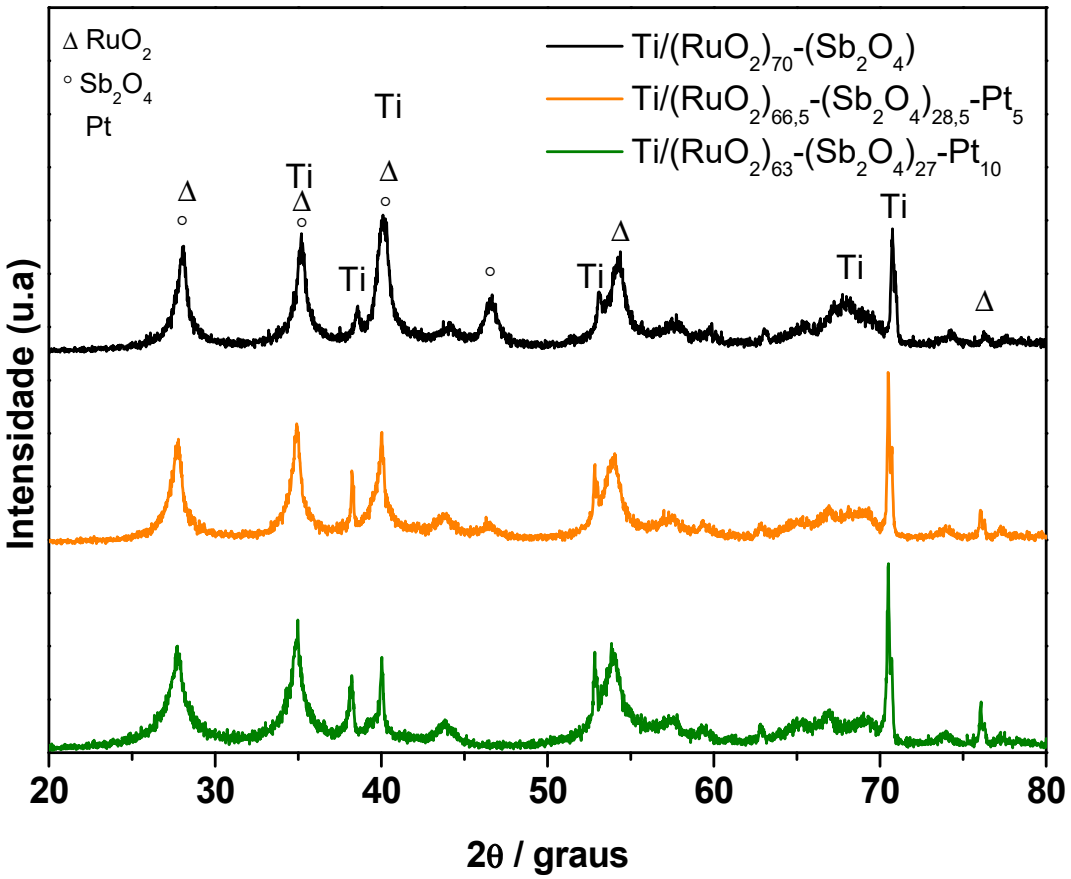

Figure S2. XRD diffraction patterns of the Ti/$(RuO_2)_{70}$-$(Sb_2O_4)_{30}$, Ti/$(RuO_2)_{66.5}$-$(Sb_2O_4)_{28.5}$-Pt_5, and Ti/$(RuO_2)_{63}$-$(Sb_2O_4)_{27}$-Pt_{10} electrodes.

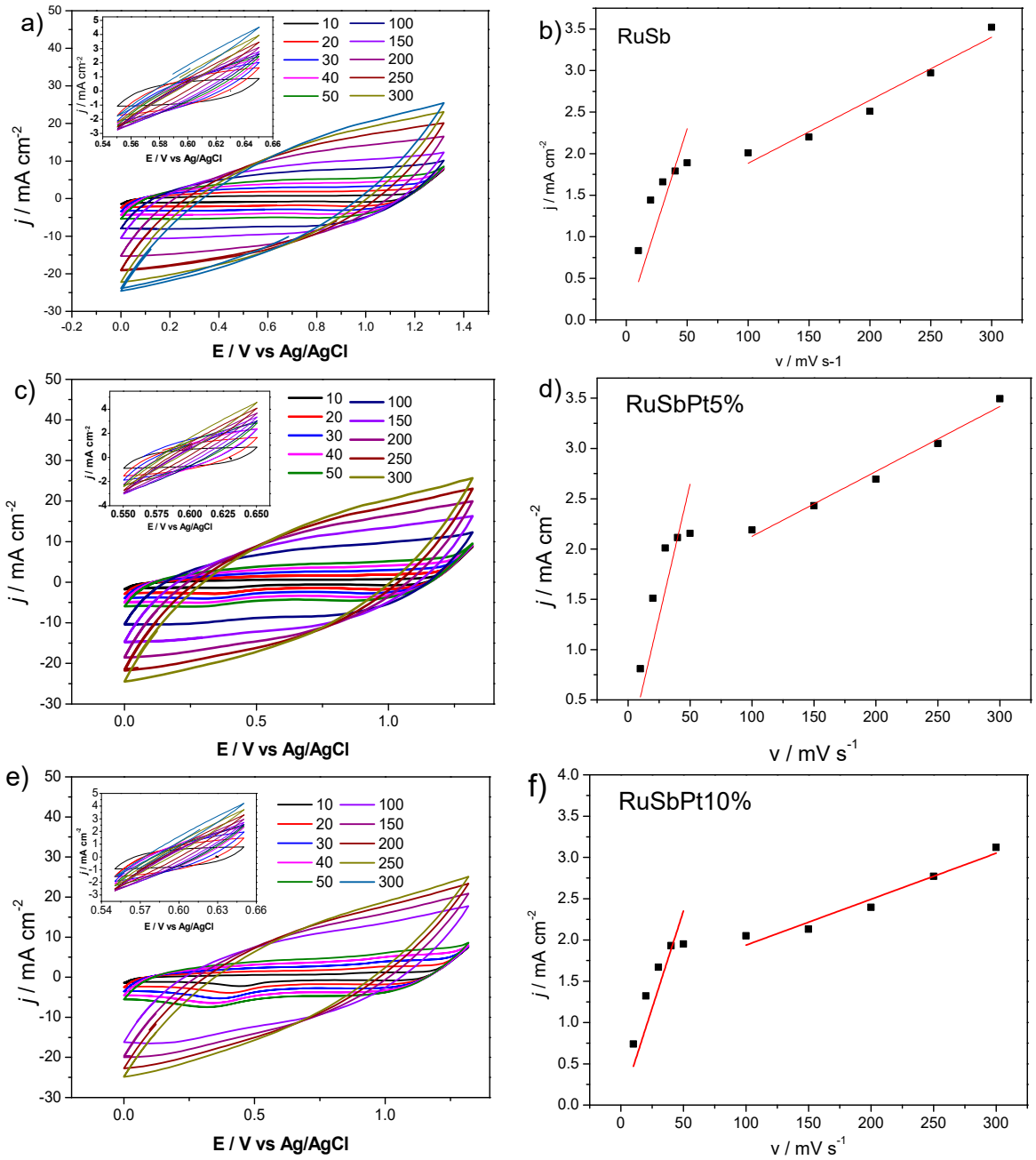

Figure S3. Cyclic voltammograms recorded in a 0.5 M H_2SO_4 solution during repetitive potential cycles at a scan rate ranging from 10 to 300 mV s^{-1} (**a**,**c**,**e**). The correlation between the voltammetric capacitive responses is shown in (**b**,**d**,**f**) for the electrodes (**a**,**b**) Ti/$(RuO_2)_{70}$-$(Sb_2O_4)_{30}$, (**c**,**d**) Ti/$(RuO_2)_{66.5}$-$(Sb_2O_4)_{28.5}$-Pt_5, and (**e**,**f**) Ti/$(RuO_2)_{63}$-$(Sb_2O_4)_{27}$-Pt_{10}.

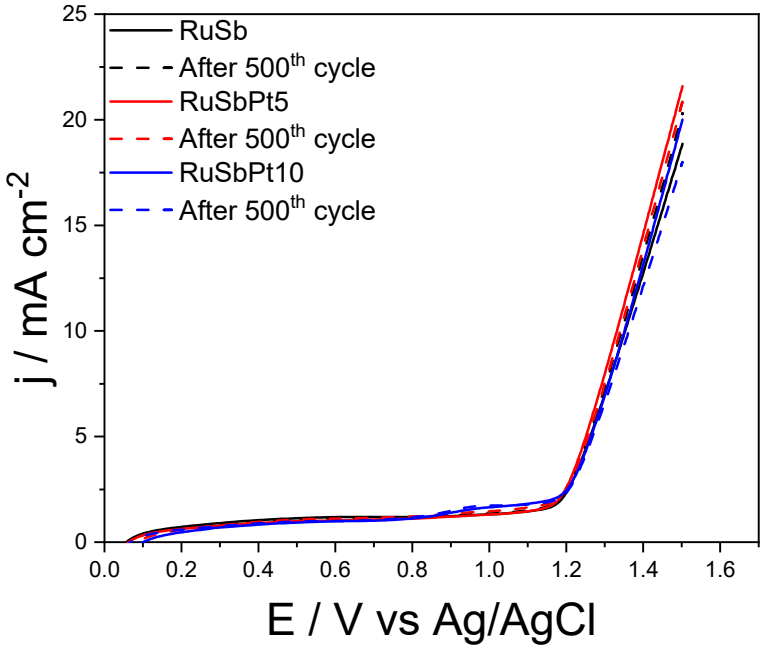

Figure S4. Linear sweep voltammetry profiles recorded at a scan rate of 20 mV s^{-1} in a 0.5 M H_2SO_4 solution before cycling and after 500 cycles at different electrodes studied in this work.