on dropping mercury electrode

autohimation effects of the Sn(OH)4 film
Results and discussion

Under the usual conditions employed for potentiometric measurements, only one possible electrode structure and consequently a change in the electrode-solution interface can be observed.

Always it is possible, when the electrode-solution interface changes due to a difference in the concentration of the solution at the electrode-solution interface, a change in the concentration of the reactant in the solution.

If a cell model is used, the potential difference at the electrode-solution interface can be observed.

In general, increasing the addition of a new or similar solution to the reaction mixture, the potential difference at the electrode-solution interface decreases.

A possible explanation for these observations is that the presence of the solution at the electrode-solution interface affects the potential difference at the electrode-solution interface.
mercury oxidation/sulfuric electrolyte

drop time (t) > 0.4 s have demonstrated to result in slight decrease in the current drop time due to the lowering of the resulting wave. However, a more detailed analysis of the oxidation process shows that higher drop times result in lower concentrations of the mercury produced due to the lower reaction rate. This behavior may be explained qualitatively by the following considerations:

1. Higher oxidation concentrations lead to lower oxidation rates, which in turn result in lower drop times, thereby increasing the concentration of the mercury produced.
2. The decrease in oxidation rate is more significant for shorter drop times, leading to a further decrease in the concentration of the mercury produced.

A comparison of oxidations and reduced generations of 0.10 mol dm⁻³ NaClO₄ at pH 1.5 shows that the relative oxidation rates are improved as the drop time increases, as evidenced by the increased chlorination efficiency.
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