

CONCLUSIONS

- Cyclic voltammetry for the system revealed a complexity of peaks at low scan rates. The nature of the processes involves, specially those relates to the reduction cycle with oxidation states regarding Cu (I) and Cu (II) being separated and identified.
- Results showed that perchlorate ions do not interfere with the formation of the duplex oxide film on copper in the potential range before breakdown. In fact, results seem to be in agreement with the passivation model for Cu in mild alkaline solutions.
- Solubilization of the film occurs after Cu (II) formation. This is thought to be related to the formation of soluble Cu (I) complex associated to a cathodic peak formed at - 0.874V(SCE).
- Soluble species of Cu (I) and Cu (II), related to breakdown, were detected in the cathodic cycle.

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