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التوثيق الالكتروني والميكرو فيلم

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بالرسالة صفحات

لم ترد بالأصل

ELECTROPLATING OF SOME TIN ALLOYS FROM AQUEOUS SOLUTIONS

A thesis Submitted

By

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B.Sc. Very good (Chemistry) 1991

B 1125E

To

Faculty of Science (Benha)
Zagazig University

For

The Award of M.Sc. Degree In Chemistry

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Aim of the work

Tin is one of the most important metals due to its widely industrial application as a result of its good properties as softness, ductility, corrosion resistance, easily solderable, attractive in appearance and is non-toxic in contact with food stuffs. In view of these attributes, it has been used for many centuries as coating of other metals. Therefore, the present work was devoted to study the electrodeposition of tin, nickel and tin-nickel alloy onto mild steel substrate from acidic baths. These baths are characterized by their cheapness. In our work, the effect of some plating and operating variables such as bath composition, current density and temperature on potentiodynamic cathodic polarization, cathodic current efficiency, surface morphology, microhardness and structure of the deposits were investigated. Moreover, the effect of these parameters on the throwing power of the acidic baths also were investigated.

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