

**ELECTRODEPOSITION OF COBALT-PALADIUM
MAGNETIC THIN FILMS FROM A CHLORIDE
BATH CONTAINING 5-SULFOSALICYLIC ACID.**

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Alloys and multilayered magnetic thin films have many applications in micro and nano electronics. For such systems, the electrochemical or electroless deposition may be the best, if not the only, method to produce the films with the desired or necessary characteristics. Among the many magnetic thin films being used or studied, CoPd alloys constitute excellent materials because of their soft magnetic properties. It is well known that the use of additives is essential to produce films that have good characteristics like adhesion, aspect, low stress or to shift the reduction potential of the metallic ion to less negative values. 5-Sulfosalicylic acid (5-ASS) is a well known additive in iron electrodeposition baths. However, its influence in cobalt baths is still not known. This paper reports some results on the electrodeposition of cobalt/palladium from a ammoniacal chloride bath containing 5-ASS.

The effect of applied current density on the alloy composition, surface structure, morphology and magnetic properties is discussed.

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