

**Electroplating of CoFe alloys from aqueous acetate baths.** El Rehim, S. S. Abd; Khaled, K.; Abulkibash, A. M. S.; Emad, M. Department of Chemistry, Faculty of Science, Ain Shams University, Cairo, Egypt. Transactions of the Institute of Metal Finishing (2000), 78(1), 41-43. Publisher: Institute of Metal Finishing, CODEN: TIMFA2 ISSN: 0020-2967. Journal written in English. CAN 132:351117 AN 2000:286735 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

### **Abstract**

Films of CoFe alloys have been deposited galvanostatically onto a steel electrode from solns. contg.  $\text{CO}(\text{AcO})_2$ ,  $\text{FeSO}_4$  and  $\text{AcOH}$ . The cathodic polarization, the deposition efficiency and the compn. of the films were detd. as a function of c.d. and compn. of the bath. The codeposition shows an anomalous behavior with Fe (the less noble) being the preferentially deposited metal. This observation is interpreted in terms of suppression of Co (the more noble) deposition by a surface Fe hydroxide pptd. during codeposition. The efficiency improves with increasing c.d. but decreases with increasing HOAc concn. The morphol. of the deposits was examd. by SEM. In most cases, smooth dense and uniform deposits with microcracks were obsd.