Ni-B Coating Production on Magnesium Alloy by Electroless Deposition

Authors : Ferhat Bülbül

Abstract : The use of magnesium alloys is limited due to their susceptibility to corrosion although they have many attractive physical and mechanical properties. To increase mechanical and corrosion properties of these alloys, many deposition method and coating types are used. Electroless Ni-B coatings have received considerable interest recently due to its unique properties such as cost-effectiveness, thickness uniformity, good wear resistance, lubricity, good ductility and corrosion resistance, excellent solderability and electrical properties and antibacterial property. In this study, electroless Ni-B coating could been deposited on AZ91 magnesium alloy. The obtained coating exhibited an amorphous and rougher structure.

Keywords : magnesium, electroless Ni-B, X-ray diffraction, amorphous

Conference Title : ICTFTA 2015 : International Conference on Thin Film Technology and Applications

Conference Location : Copenhagen, Denmark

Conference Dates : June 11-12, 2015