

ABSTRACT

Mg alloys played a significant role in replacing the existing sacrificial anodes. To maintain the negative potential and its capability in preventing corrosion, Ca and Al was added as alloying elements. Polarization curves showed the Al elements have some influence in the electrochemistry corrosion behavior of Mg-Ca alloys. All the samples presented a well defined passive behavior. No pitting potential was detected in this electrolyte either in the anodic or the cathodic branches of the polarization curve accepts for Mg alloy with the lowest Al content.

Keywords: Magnesium, Aluminium, Corrosion, Sacrificial anode, Polarization