Testing of Zn-1.6Mg Alloy in Model Physiological Solution

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The Zn-1.6Mg alloy was chosen because mechanical properties of this alloy are similar to human bones. It is necessary to describe corrosion behaviour of the Zn-1.6Mg alloy before using it for application as a biodegradable material. In this work, two types of corrosion rate measurements were used. One of them was an exposure test in model physiological solution marked as SBF (the simulated body fluid) and NaCl solution. The second method was measurement of potentiodynamic curves in the SBF and NaCl solutions. The aim of this work was to compare both methods and confirm similar trend of corrosion behaviour in model physiological solution (SBF and NaCl).

Keywords: Biodegradable Material, Zinc, Magnesium, Model Physiological Solution, Immersion Test

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