

Biodegradable magnesium alloys for medical applications

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Nowadays, magnesium alloys from the Mg-Zn-Ca system are in a region of interest in terms of biomaterials engineering as well as in industrial application as lightweight structure materials. In particular, magnesium alloys can be used to manufacture biocompatible and bioresorbable temporary orthopedic implants due to their specific corrosion behavior and mechanical properties similar to that of human bone. Therefore, the aim of this study is to investigate the relationship between the composition, microstructure, corrosion and mechanical properties of alloys from the Mg-Zn-Ca system.