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(54) Title: BIODEGRADABLE MAGNESIUM ALLOYS AND USES THEREOF

(57) Abstract: Novel magnesium-based compositions-of-matter which can be used for manufacturing implantable medical devices such as orthopedic implants are disclosed. The compositions-of-matter can be used for constructing monolithic, porous and/or multilayered structures which are characterized by biocompatibility, mechanical properties and degradation rate that are highly suitable for medical applications. Articles, such as medical devices, made of these magnesium-based compositions-of-matter and processes of preparing these magnesium-based compositions-of-matter are also disclosed.



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