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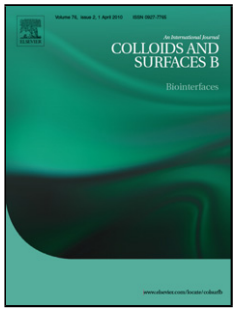

Title: Influence of biodegradable polymer coatings on corrosion, cytocompatibility and cell functionality of Mg-2.0Zn-0.98Mn magnesium alloy

Author: Agnieszka Witecka Akiko Yamamoto Joanna Idaszek Adrian Chlanda Wojciech Święszkowski

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Graphical Abstract

Highlights

1. Water permeability and degradation rate of polymer coating controls ZM21 corrosion.
2. Initial protective effect of the coating is more important than polymer degradation.
3. EIS technique is useful to evaluate protective effect of polymers.
4. PLLA-, PHBV- and PHB-coatings support cell growth and following functionalization.
5. PHBV is the most beneficial for cell proliferation and functionalization.