

## **SYNTHESIS OF POLYMERIC FILM WITH SILVER QUANTUM DOTS WITH POSSIBLE APPLICATION IN REGENERATION OF DERMAL LAYER**

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Skin wounds represent a challenge in the clinical field, since it is required to keep wounds infections under control. There are many treatments that can generate good cell regeneration but in turn, they create an ideal environment for the development of some infectious pathogens. The objective of this research was to synthesize a film of chitosan with silver quantum dots added by cathodic deposition. Characterization tests were performed by SEM and FTIR of the material, managing to deposit silver nanoparticles between 7 and 10 nm. In addition, antibacterial tests were performed proving to be a bacteriostatic material. On the other hand, the cytotoxicity test (MTT) showed a non-cytotoxic material at 24 and 48 h of culture.

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