

## HYDROGELS FOR THE CONTROLLED DELIVERY OF THEOPHYLLINE DERIVATES: PREPARATION AND CHARACTERIZATION

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**Abstract:** *This paper presents the obtaining of xanthan-chitosan hydrogels with two new entrapped theophylline derivatives. The synthesized products were physical-chemical characterized by FTIR spectroscopy and by scanning electron microscopy (SEM). The in vitro release studies of theophylline derivatives from the obtained complexes were carried out in similar pH conditions mimicking the gastrointestinal media. The kinetic data were finally analyzed based on literature reported specific polymer-drug systems mathematical models.*

**Keywords:** chitosan, xanthan, theophylline derivatives, drug delivery.

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