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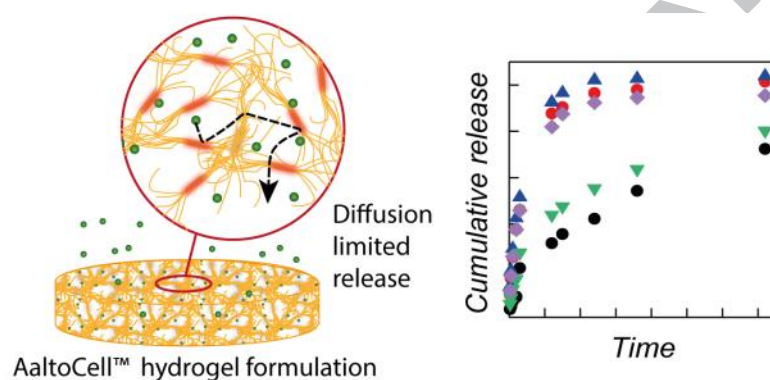


Entangled and colloidally stable microcrystalline cellulose matrices in controlled drug release

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Graphical abstract

Abstract

Drug release from a new type of matrix material consisting of partially fibrillated microcrystalline cellulose was investigated. A mechanical treatment of novel AaltoCell™ cellulose microcrystals caused partial opening of the nanofibrillary structure of the cellulose particles and entanglement of individual particles led into formation of an elastic network of microcrystalline cellulose. The rheological properties of the stable hydrogel-like materials were characterised by shear rheometry. Model compounds metronidazole and lysozyme were

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