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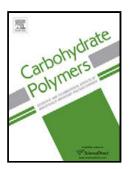
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ACCEPTED MANUSCRIPT

Preparation, characterization and *in vivo* evaluation of pH sensitive, safe quercetinsuccinylated chitosan-alginate core-shell-corona nanoparticle for diabetes treatment

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Highlights:

- > Preparation of pH sensitive succinyl chitosan/alginate core-shell nanoparticles.
- > Nanoparticles used diabetes treatment show 90nm size with -24mV zeta potential.
- > ~95% quercetin encapsulation with self-sustained release following non-fickian trend.
- > Pronounced hypoglycaemic effect and maintenance of glucose homeostasis in diabetics
- Safe, non-toxic, polymeric drug carriers for diabetes treatment

ABSTRACT

The study aims for development of an efficient polymeric carrier for evaluating pharmaceutical potentialities in modulating the drug profile of quercetin (QUE) in antidiabetic research. Alginate and succinyl chitosan are focused in this investigation for encapsulating quercetin into core-shell nanoparticles through ionic cross linking. The FT-IR, Download English Version:

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