

عنوان مقاله:

Preparation of PVA Nanosphere for Control Release of Betamethasone

محل انتشار:

دومین کنگره بین المللی علوم و فناوری نانو (سال: 1387)

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Betamethasone is a glucocorticoid steroid with anti-inflammatory and immunosuppressive properties which can be used in treatment of asthma and itching [1]. Poly vinyl alcohol (PVA) hydrogels have been proposed as promising biomaterials to replace diseased soft tissues [2]. In this research, polyvinyl alcohol nanospheres were prepared by oil in water emulsion method and the subsequently obtained nanoparticles were exposed to 1, 2 and 4 freeze-thawing (F-T) cycles including 24 hours freezing cycle at -25°C and 12 hours thawing at ambient temperature. Synthesized nanoparticles were characterized using Transmission Electron Microscopy (TEM) and FTIR methods and betamethasone release from nanospheres was analyzed by UV spectrophotometer at 245 nm. The results showed that these nanoparticles can be used for sustain release of such drugs for as long as 1200 hours and F-T cycles can influence release behavior of the nanoparticles

کلمات کلیدی:

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