

عنوان مقاله:

Effect of functionality of pressure sensitive adhesives on in vitro evaluation of a double layer fentanyl patch

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

In this study double-layer transdermal drug delivery systems (TDDSs) with different functional and non-functional acrylic pressure sensitive adhesives (PSAs) were prepared. For this purpose fentanyl as a drug was used. The effects of PSAs type on skin permeation and in vitro drug release from devices were evaluated using a hydrodynamically wellcharacterized Chien permeation system fitted with excised rat abdominal skin. as well as the adhesion properties of devices such as peel strength and tack values were obtained. It was found that TDDS with –COOH functional PSA showed the lowest steady state flux. Double-layer TDDSs had the constant flux up to 72h. Drug release followed the Higuchi's kinetic model. The double layer TDDSs with non-functional PSA demonstrated the suitable skin permeation .rate close to Duragesic®TDDS and suitable adhesion properties

کلمات کلیدی:

fentanyl; transdermal drug delivery system; skin permeation; pressure sensitive adhesive; peel strength; tack

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