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(57) Abstract :

The present invention relates to a transdermal patch formulation comprising frusemide or Lactuca sativa leaf extract for sustained drug delivery. The patch is prepared using a polymeric matrix of hydroxypropyl methylcellulose (HPMC), ethyl cellulose, and a gum selected from locust bean gum (LBG) or its carboxymethylated derivative (CMLBG), with propylene glycol as a plasticizer and dimethyl sulfoxide (DMSO) as a permeation enhancer. The formulation is cast using a solvent system of methanol and chloroform in a 1:1 ratio. The resulting patch exhibits uniform thickness, flexibility, and transparency, with effective drug loading and controlled release properties. The method provides a stable, non-invasive, and skin-compatible system for the transdermal delivery of a diuretic or herbal extract with potential therapeutic applications in fluid retention and related conditions.

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