

Poly (N-Vinyl Caprolactam) Based Thermo-responsive On Demand Transdermal/Topical Drug Delivery System

The invention provides a biocompatible, thermo-responsive matrix for transdermal drug delivery. More particularly, the invention provides a thermo-responsive matrix comprising poly-N-vinyl caprolactum (PNVCL) polymer grafted with a natural polymer which incorporates either drug, drug loaded microparticles, drug loaded nanoparticles, cells or combinations thereof. The present invention also provides a process for preparing the afore-mentioned thermo-responsive matrix and a transdermal drug delivery system comprising the afore-mentioned thermo-responsive matrix

Patent application No. 3808/Mum/2014