

Abstract**A BIOCOMPATIBLE, NON-BIODEGRADABLE, NON-TOXIC POLYMER USEFUL FOR NANOPARTICLE PHARMACEUTICAL COMPOSITIONS**

The invention relates to a biocompatible, non-biodegradable, and non-toxic polymer of formula (I), comprising of three monomeric units, selected from 1-Vinylpyrrolidone (VP), N-Isopropylacrylamide (NIPAM), and ester of Maleic anhydride and Polyethylene glycol (MPEG), cross-linked with a bi-functional vinyl derivative, of high purity and substantially free of respective toxic monomeric contaminants, and a process for preparation thereof. The invention further relates to nanoparticulate pharmaceutical compositions of poorly water-soluble drugs or compounds comprising the polymer of the invention, which are safe, less-toxic and convenient for bedside administration to patients in need thereof. Furthermore, the invention relates to a highly selective method for preparation of nanoparticulate pharmaceutical compositions of poorly water-soluble drugs or compounds.

Fig - 1.