

pH-sensitive nanoparticle for drug delivery system

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Micelles have been received attention in drug delivery system, due to their drug loading capacity in the interior site and being able to keep away from RES(reticuloendothelial system). In recent years there is many research about various stimuli-sensitive micelles for adequate drug release in desired region.

There is speculation that pH sensitive polymeric micelle could serve for the delivery of drugs to tumors, inflamed tissues or endosomal compartments, since they are all associated with a lower pH than normal tissue. pH-sensitive polymeric micelle could enhance the antitumor efficiency of a drug by accumulating in the target area, destabilizing cellular membranes and/or releasing their contents as the pH of the surrounding environment decreases. Therefore pH sensitive nanoparticle will be useful for drug delivery system.