

**A study of polymeric micelle : micellization–demicellization behavior of new pH–sensitive block copolymer**

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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.

This study is about pH–sensitive micelle. Micelle has been collapsed as pH undergoes a change and then drug released. block copolymer becomes self assembled micelles in aqueous solution and show a reversible micelle–demicelle behavior with pH, thus appropriate molecular design is needed. Micelle has been formed at the range of body pH(7.4) and broken at lower or higher pH than body pH.

pH–sensitive block copolymers have been synthesized and characterized by NMR, GPC, MALDI–TOF, LC/MSD trap, etc. Fluorescence spectrometer has been utilized for measuring the micellization behavior with CMC changes.