

Chapter 5

SELF-ASSEMBLY OF PEO-PPO-PEO BLOCK COPOLYMERS: ADVANCED NANOSYSTEMS FOR DRUG DELIVERY APPLICATIONS

***Sofiya J. Shaikh, PhD, Hemil S. Patel
and Rakesh K. Sharma*, PhD***

Applied Chemistry Department, Faculty of Technology
and Engineering, The Maharaja Sayajirao University of Baroda,
Vadodara, Gujarat, India

ABSTRACT

Poloxamers are triblock copolymers composed of a middle hydrophobic polypropylene oxide (PPO) block that connects to hydrophilic polyethylene oxide (PEO) side blocks and structurally builded as $\text{PEO}_n\text{-PPO}_m\text{-PEO}_n$. Poloxamers are well-known with the tradename Pluronics® (BASF) and have been the topic of intense research in the 21st century, due to their self-assembled nanosized micelles worked as potent vehicles for drug delivery.

* Corresponding Author's Email: raksharmain@yahoo.com;
rksharma-appchem@msubaroda.ac.in.