Polymersome bubble with pH-Tuning Permeable Membrane

김민상, 이두성*
성균관대학교
(dslee@skku.edu*)

Vesicular aggregates composed of copolymers (polymersomes) have attracted particular interest as candidate materials for biomedical applications. Amphiphilic copolymers have higher molecular weights than phospholipids and can associate to form a more entangled membrane with improved mechanical properties. Herein we report the preparation of polymersomes with pH-sensitive membranes using a biodegradable polymer designed by grafting together a copolymer using methoxy poly(ethylene glycol) (PEG), poly(D,L-lactide) (PLA), and poly(β-amino ester) (PAE). Membrane properties of polymersome have been evaluated against low and high molecular weight compounds. And various hydrophilic solutes have been encapsulated in polymersome from preparation by solvent exchange method.