Rational Design of PDA Liposome Immobilization for Sensor System

박천교, 강창덕, 심상준*
성균관대학교
(simsj@skku.edu*)

Polydiacetylene (PDA) immobilization on the glass surface was achieved by NHS/EDC chemical interaction for developing of biological sensor system. As well known, when diacetylene monomers are self-assembled and polymerized by UV light, they generally produce a blue color that changes to red (fluorescent) under various stimuli such as temperature, pH, mechanical force, solvent, and most interestingly, ligand-receptor interactions occurring at the polydiacetylene matrix interface. With this special property, it is possible to develop solid phase sensor system by using immobilized PDA. But there are some kind of challenges to achieve immobilization of liposome, so in this study, we have tried to optimize the immobilization of liposome on the glass surface, and how to make the rationally designed PDA liposome sensor system.