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Surface analysis of Tri-block copolymers

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Poly (L-Lactic acid) (PLLA) is naturally present in the human body, it can be used in bone fracture fixation⁽¹⁾, in the drug delivery systems,^(2,3) in prosthetic devices⁽⁴⁾, as surgical suture, or in blood vessel repair.⁽⁵⁾ Furthermore, biodegradation of the PLLA component ensures that the biomaterials is metabolized and eliminated by the body after its function has been accomplished. The surface chemistry of spin coated films of poly(ethylene oxide) (PEO), PLLA, Poly(lactic acid-co-glycolicacid) (PLGA) PLLA-PEO-PLLA block copolymers and MPEO-PLLA-MPEO, PLGA-PEO-PLGA, and PDLA-PEO-PDLA have been investigated over a wide range of compositions under development for drug delivery and/or tissue engineering applications. X-ray photoelectron spectroscopy and Atomic force microscopy were utilized to prove both and structure data. The study of surface is executed by angle dependent XPS. Also we will investigate the surface of PEO-PLLA block polymer by XPS using high-temperature method.

[참고문헌]

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