

## Living Anionic Ring-Opening Polymerization of Organic-Inorganic Diblock Copolymer

뉘엠크닷, 김동표\*

충남대학교

(dpkim@cnu.ac.kr\*)

Poly(methyl methacrylate) have been synthesized by living anionic ring-opening polymerization of 1,1-methylsiletance at  $-48^{\circ}\text{C}$  in THF-hexane solvent system and addition of methyl methacrylate monomer. The characterization of diblock copolymer are simultaneously investigated by GPC, DSC, IR,  $^1\text{H}$ ,  $^{13}\text{C}$  and  $^{29}\text{Si}$  NMR. The microphase separation in diblock copolymer is characterized by small-angle X-ray scattering (SAXS) and transmission electron microscopy (TEM). The polymer in the solution was found to have difference morphology depending on the volume fraction of the block copolymer.