

Dispersion polymerization of acrylonitrile in compressed liquid dimethyl ether

조동우, 오경실, 신정인, 배 원¹, 김화용*
서울대학교; ¹미원상사
(hwayongk@snu.ac.kr*)

Dimethyl ether (DME) has received a great deal of attention in industrial application. After DME prove to be the eco-friendly chemical material, more researchers take part in the DME application project. We found that compressed liquid DME can be used as polymerization media and have advantages about the separation process. Therefore, we try to apply DME to the dispersion polymerization of acrylonitrile.

To investigate the factor of dispersion polymerization, the experiments are performed with changing surfactant type, concentration of surfactant, initiator, and monomer, and polymerization pressures. Surface and bulk characterization of the particle were performed by SEM, XRD, and TEM.