

The rheological property of syndiotactic polystyrene modified by high intensity ultrasound

주동욱, 김경일, 이재욱*
서강대학교
(jwlee@sogang.ac.kr*)

High intensity ultrasound is widely used in the areas of biology, cleaning, plastic welding, matching and chemical reaction, and so forth. The ultrasonicated system using batch mixer was applied to modify linear structure of syndiotactic polystyrene (S-PS) in this study. It was observed that the viscosity of S-PS was decreased by ultrasonic treatment. As the other side, when it was using multifunctional agent (MFA) and ultrasonic treatment at once, the high value of G' and low frequency viscosity ($\omega < 10\text{rad/s}$) occurred. With considerable contents, it was investigated rheological property, thermal behavior and processability of S-PS modified by ultrasonic treatment.