

Synthesis of light scattering polystyrene microspheres by plug flow reaction system

한진, 임상혁†

경희대학교 결정기능화공정센터(FCC)

(imromy@khu.ac.kr†)

Recently flat panel displays (FPDs) such as liquid crystal displays (LCDs), plasma display panels (PDPs), and organic light emitting displays (OLEDs) have been widely used in our daily life and their function and resolution are gradually enhanced to cope with processing much information. In FPDs, we often meet the situation that our features are reflected on the top surface on the screen by external light so that it is difficult for us to recognize the information of display. Therefore, the antiglare (AG) or antireflection (AR) film is required to reduce the reflection of top screen. Commercially the AG films are more widely adapted due to the cheaper price than the AR films. However, as the market requires higher definition display, the AG films for high resolution display are also needed not to distort the original images. For this, the light scattering microspheres with controlled size and refractive index should be developed because they can exhibit internal and external scattering effect. Here, we synthesized the polystyrene microspheres by plug flow reaction system in order to prepare the light scattering microspheres with controlled size and refractive index.