

Synthesis of high performance polyethersulfone – mesoporous silica nanocomposites  
application for substrate of OLEDs with high transparency and dimensional stability

VO TRI NHAT, 김덕준†  
성균관대학교  
(djkim@skku.edu†)

Mesoporous silica nanospheres with surface modification of the particles were synthesized. Mesoporous silica with particles size smaller than 50nm can avoid scattering of the light. So the fillers are not effect to transparent property of nanocomposite. Mesoporous silica filler with high surface area may increase interaction between polymer and fillers. Therefore, dimensional stability of film can be improved. Furthermore, the mesopore maybe immobile the polymer chains inside it. Preventing the polymer expand with heating. With surface modification of the particles, the mesoporous silica nanoparticles can be well dispersed into polymer matrix. The characteristics of mesoporous silica nanoparticles and the nanocomposites will be measured.