

## Synthesis of polyether-polycarbonate from phenyl glycidyl ether and CO<sub>2</sub> using silica-supported ionic liquid

안지연, 심혜림, 이미경, 만주, 김경훈, 박대원\*  
부산대학교  
(dwpark@pusan.ac.kr\*)

Silica-supported ionic liquid proved to be an efficient heterogeneous catalyst. It requires no additional organic solvents either for the reaction or for the separation of product and the catalyst can be easily recovered by filtration. In this study we selected imidazole as one kind of the efficient ionic liquids and supported it on silica. We investigated the catalytic performance of silica-supported ionic liquid in the copolymerization of phenyl glycidyl ether (PGE) and carbon dioxide in a batch autoclave reactor. The conversion of PGE was found to be over 90 % using the silica-supported ionic liquid at 80 – 140 °C. The order of PGE conversion increased with increasing CO<sub>2</sub> pressure and reaction time.