

Phase Behavior of Amine Mixture in Supercritical Carbon Dioxide

원종우, 임종성*, 한갑수
서강대학교
(limjs@sogang.ac.kr*)

Cloud point of the amine mixture with the fluoride group surfactant in supercritical carbon dioxide has been investigated. Amine mixture was used as additives for the supercritical carbon dioxide, because only CO₂ could not remove completely photo resist used for semiconductor manufacturing process. The cloud point is a necessary factor for Supercritical CO₂ Resist Removal (SCORR) process. The cloud points were measured using a high pressure variable-volume view cell. All systems exhibited a lower critical solution temperature (LCST) phase behavior and became one-phase in carbon dioxide in the range of 313.15 to 353.15 K at less than 30 MPa.