Formation of water-soluble inclusion complex powder using SAS process

김정규[2], 이상윤[1], 최효진[2], 김우식[1], 유종훈[2], 임교빈*[2]
수원대 화공생명공학과; [1]연세대 화학공학과;
[2]수원대 화공생명공학과
(gblim@mail.suwon.ac.kr*)

Itraconazole is a drug used in the treatment of fungal infections and has a highly lipophilic property. In this study inclusion complex of itraconazol/HP-β-CD was prepared using a supercritical antisolvent (SAS) process. Various process parameters such as temperature, pressure, concentration and flow rate were investigated. From the in vitro test, the solubility and dissolution rate of itraconazole/HP-β-CyD inclusion complex were significantly increased compare to that of untreated itraconazole. The present results suggest that the SAS process is a promising method for the preparation of water-soluble cyclodextrin inclusion complex of water-insoluble drugs.