Recrystallization of itraconazole and β-cyclodextrin micro- and nano- particles by supercritical antisolvent precipitation

The particle morphology of itraconazole and β -cyclodextrin was studied by supercritical antisolvent precipitation(SAS) process frequently applied to produce size – controlled nanoparticles of pharmacetical compounds in order to improve productivity and uniformity. From the rigorous performances of SAS processes, the pressure of 150 bar, the temperature of 45°C, and the solution feed flowrate of 0.5ml/min were detemined as the best conditions of SAS process , and the particles obtained were about 100nm with relatively excellent productivity and uniformity.