

Production of crystals with low aspect ratio by porous device in drowning – out crystallization

조승빈, 이종휘†
중앙대학교
(jong@cau.kr†)

When manufacturing crystals of drugs through drowning-out crystallization, crystals of high aspect ratio could easily be damaged during processing and have poor flowability, leading to the problems of downstream processes such as packaging and filtration in the pharmaceutical industry. To solve this problem, the various studies have been carried out to change the physicochemical properties of drugs by changing the shape, size and aspect ratio of crystals. In this study, a drug called naproxen, which is used as a nonsteroidal anti-inflammatory drug, was produced by using drowning-out crystallization with porous devices having uniform pores, and the change of the aspect ratio of the drug was verified through various parameters. These changes improve the flowability of drugs and provides the possibility of solving problems in the downstream processes.