Analysis of relationship between reactor scale and statin crystal size of precipitation reaction in Lab scale Semi-batch reactor

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Statin is the medicine which is very effective to hyperlipidemia. Like other various drug, it is produced as calcium salt form. To control absorbing speed in human body, Particle size of drug is very important factor in produce of statin.

Crystal size is decided by several parameters such as reactant concentrations, temperature, reaction time, reactor mixing. Lab experiments is helpful to estimate actual plant scale process. However, the gab between lab and plant scale makes difference in production result. In this study, characteristics change in different scale reactors was analyzed. Product size esimation with information of characteristics change was also progressed based on formal researches on cyrstal preciption.