

Use of batch control technique for high performance unseeded batch cooling  
crystallization of  
poly-hydroxybenzophenon

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A batch control technique called BMPC (batch model predictive control) has been employed for reproducible generation of high quality seed crystals in unseeded batch cooling crystallization of poly-hydroxybenzophenon. In unseeded crystallization, seed generation through primary nucleation is the most critical step. For this, an optimum cooling profile that gives an appropriate number of seed crystals should be determined. However, the heat evolved during the nucleation makes temperature control difficult. To overcome this problem, BMPC has been introduced and successfully employed.