Effect of Crystallizer Type on Crystal Growth Rate of N-vinyl-2-pyrrolidone with 2-pyrrolidinone by Layer Melt Crystallizer

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Layer melt crystallizer is used to separation of N-vinyl-2-pyrrolidone from 2-pyrrolidinone. To design layer melt crystallizer the study of crystal growth rate is important. The growth rate of crystal is affected by type of crystallizer. Two type of crystallizer is used in this study. One is widely used cold-finger type and the other is plate layer crystallizer. The plate layer crystallizer is consist of plate crystallizing cell and two cooling plate at each side. The crystal growth was taken picture using interval shooting digital camera and crystal growth rate was measured by graphical analysis of taken picture. The crystal growth rate constant is calculated from experimental data and compared with cold-finger type and plate type.