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内容概要

twenty years have elapsed since the second edition of crystallization was published , and more than thirty since the first. over this period of time , significant advances have been made in our understanding of the basic mechanisms of crystallization. there has also been an upsurge of interest in the utilization of crystallization as a processing technique throughout a wide range of industries. it is pleasing , therefore , to note that problems of crystallizer design and operation can now be approached with some confidence. his third edition is essentially a completely new book. most sections have been extensively rewritten and some considerably enlarged to reflect the important developments of recent years. the subject matter has been rearranged to produce a more coherent structure. for example , all methods of crystal size characterization and measurement are brought together in chapter 2. the measurement and prediction of solubility data are given some prominence in chapter 3. nucleation and crystal growth respectively are now dealt with in separate chapters , and the topics of crystal habit modification and phase transformation are given special attention. the techniques of recrystallization , precipitation , sublimation , and crystallization from melts and solutions are all treated separately , and in considerable detail. for solution crystallization , a number of different crystallizer operating modes , including batch operation , are assessed and some simple design procedures are outlined. the problems of scale-up and downstream process requirements are also addressed.



作者简介

Emeritus Professor of Chemical Engineering University of London



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