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of the Model Parameters; 8.5 Model Validation with Data; 8.6 Review of Too et al.; 8.7 Danckwerts' law for a Multiphase Systems; 8.8 The abstract Multiphase System; Chapter 9 Diffusion Limits; 9.1 Fokker-Planck equation; 9.2 Limit Process; Appendix A Equations for RTD in CSTR and DPF; A.1 Ideally Mixed Vessels (CSTRs) in Series; A.2 Plug Flow with Axial Dispersion; Bibliography; Index; Mathematics in Science and Engineering

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Sommario/riassunto

There is an ever increasing need for modelling complex processes reliably. Computational modelling techniques, such as CFD and MD may be used as tools to study specific systems, but their emergence has not decreased the need for generic, analytical process models. Multiphase and multicomponent systems, and high-intensity processes displaying a highly complex behaviour are becoming omnipresent in the processing industry. This book discusses an elegant, but little-known technique for formulating process models in process technology: stochastic process modelling. The technique is based on

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