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Sommario/riassunto	This book illustrates the computational framework based on knowledge of flow and mass transfer together with optimization techniques to solve problems relevant to micromixing technology. The authors provide a detailed analysis of the different numerical techniques applied to the design of micromixers. Flow and mixing analysis is based on both the Eulerian and Lagrangian approaches; relative advantages and disadvantages of the two methods and suitability to different types of mixing problems are analysed. The book also discusses the various facets of numerical schemes subjected to discretization errors and computational grid requirements. Since a large number of studies are based on commercial computational fluid dynamics (CFD) packages, relevant details of these packages to the mixing problem using them are presented. Numerical optimization techniques coupled with CFD analysis of flow and mixing have proved to be an important tool for micromixers design, and therefore, are

animportant part of the book. These techniques are presented briefly, and focus is on surrogate modeling and optimization applied to design of micromixers.