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Sommario/riassunto	"The book describes how to use kinetic models based on the concept of biomass growth and growth stoichiometry to simulate, design and optimize biological wastewater treatment processes. The general approach used in the book is to write rate equations for the various processes occurring and coupling them with mass balances specific for each process. The resulting system of non linear equations or of differential equation is then solved using Microsoft Excel. By varying the values of the design variables, the process is designed, simulated and optimized. In addition to the traditional design variables such as reactor volume, substrate removal, excess sludge production, particular focus is given in the book to pH calculation, which is particularly important for nitrogen removal and anaerobic processes. The book also shows how this modeling methodology can be applied to specific case studies reported in the literature."--