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Nota di contenuto	Introduction -- Quantities, numerical values, units. Important relationships -- Basics and collection of formulas -- Ideal gas law. Mass action law. Mass balances. Heat. Electrochemistry. Liquid conveying. Scale enlargement -- Exercises -- Ideal gas law. Law of mass action. Mass balances. Heat. Electrochemistry. Liquid conveying. Scale enlargement. Combined tasks.
Sommario/riassunto	Understanding and mastering basic computational methods for the quantitative description of the processes in a chemical production plant are essential for an optimal interaction of internal and external technical functions, such as production planning, plant operation, quality assurance, laboratory, research, etc. Therefore, this collection of tasks, oriented on practical examples, is aimed at foremen and shift supervisors as well as plant engineers who have received a

predominantly mechanical engineering education. Also addressed are chemists and chemical laboratory assistants/chemical engineers who have had no relationship to technical chemistry but are involved in a production operation. For chemistry students, the problem collection opens an introduction to chemical engineering calculus. The author Dr. Günter Jüptner has been working in the chemical industry for 55 years. His curriculum vitae includes a career starting as a chemical laboratory assistant in a company laboratory and culminating in the position of global technology manager for polyester in a major global chemical company. Intermediary stages included studies at a technical college to become a chemical engineer, followed by studies in chemistry at a technical university, culminating in a doctorate. Here, the author taught seminars focusing on technical chemistry/process engineering, among other things. His later work in research and development always took place in close practical cooperation with production plants. For about ten years, he has been teaching prospective industrial foremen in chemistry on a part-time basis. This collection of tasks, which describes basic calculations occurring in chemical production in a practical manner, developed from this. The translation was done with the help of artificial intelligence. A subsequent human revision was done primarily in terms of content.