

G. K. Vassilina

# GENERAL CHEMICAL TECHNOLOGY

PART I

Educational manual

КАЗАК  
УНИВЕРСИТЕТИ  
БАСПАЛУ



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The book is educational manual on the course «General chemical technology» for students of chemical specialties of higher education institutions. The general regularities of reactionary processes of chemical technology, basis of the theory and the choice of the chemical reactor are stated in the first part of educational manual. The chemical production is considered as a chemical-technological system, approaches to its synthesis and analysis are given. The problems of rational use of raw materials and energy in chemical production are outlined and also materials on energy technology facilities are included.

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## PREFACE

The manual is designated for students of chemical specialties of higher education institutions.

This manual is compiled in accordance with the basic provisions of the curriculum of the subject called «General chemical technology»; it includes 6 chapters, which disclose general particularities of the reaction processes in chemical technology, basics of the theory and selection of a chemical reactor, consideration of chemical production as a chemical technology scheme, providing also the approaches to the synthesis and analysis of the chemical production, along with the parameters of technological process efficiencies and the criteria characterizing the extent of technological perfection of the technological systems. Much attention is paid to the issues of raw material and energy base of the chemical industry, complex and reasonable consumption of raw materials and energy; there are also included the aspects related to applying of energy-efficient installations.

The questions for performance of self-control are provided at the end of each chapter; it facilitates comprehension of the theoretically studied learning material. The manual of general chemical technology is a timely contribution into improvement of the process of teaching and general engineering training of the students specialized in the chemistry and chemical technology disciplines.

Educational issue

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**PART I**

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