DESCRIPTION

Computer aided process engineering (CAPE) tools have been very successfully used in process design and product engineering for a long time. In particular, simulation and modelling tools have enabled engineers to analyse and understand the behaviour of selected processes prior to building actual plants.

The aim of design or retrofit of chemical processes is to produce profitably products that satisfy the societal needs, ensuring safe and reliable operation of each process, as well as minimising any effects on the environment. This involves the conceptual design or retrofit of plants and processes, novel manufacturing approaches, process/control system design interactions and operability, manufacturability, environmental and safety issues.

Backed by current studies, this 2-volume set gives a comprehensive survey of the various approaches and latest developments on the use of CAPE in the process industry.

An invaluable reference to the scientific and industrial community in the field of computer aided process and product engineering.

ABOUT THE AUTHOR

Luis Puigjaner obtained his M.S. (Engineering) degree from the UPC, and a Ph.D. degree from the Polytechnic University of Madrid. He holds also a MS degree from the University of Houston. He became a member of the Higher Scientific Research Council of Spain (1972) and is currently Professor of Chemical Engineering at UPC, Director of the Environmental Center (LCMA) and the Head of a research group of 32 people with several projects in different areas of process systems engineering. He has over 350 refereed publications. His professional experience includes teaching and research positions at several Institutions.
Georges Heyen is a professor in Chemical Engineering at the University of Liege, Belgium, with teaching, research and consultancy interests in process systems engineering. He teaches courses ranging from applied chemical thermodynamics to modelling and plant design. He took part in several international projects financed by the European Union to carry research and development on process optimisation tools and methods, in collaboration with major European universities and research centres. He is one of the founders of the company Belsim, which is active in software development for process modelling and optimisation, especially using online data validation techniques.