

ANALYSIS, SYNTHESIS, AND DESIGN OF CHEMICAL PROCESSES

FIFTH EDITION

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processing product design and analyzing existing processes Economic analysis estimating fixed capital investment and manufacturing costs measuring process profitability and more Synthesis and optimization process simulation thermodynamic models separation operations heat integration steady state and dynamic process simulators and process regulation Chemical equipment design and performance a full section of expanded and revamped coverage of designing process equipment and evaluating the performance of current equipment Advanced steady state simulation goals models solution strategies and sensitivity and optimization results Dynamic simulation goals development solution methods algorithms and solvers Societal impacts ethics professionalism health safety environmental issues and green engineering Interpersonal and communication skills working in teams communicating effectively and writing better reports This text draws on a combined 55 years of innovative instruction at West Virginia University WVU and the University of Nevada Reno It includes suggested curricula for one and two semester design courses case studies projects equipment cost data and extensive preliminary design information for jump starting more detailed analyses *Encyclopedia of Chemical Processing and Design* John J. McKetta, William Aaron Cunningham, 1976 **Scientific and Technical Aerospace Reports** ,1976 Engineering Education ,1974 *Computer Modeling of Chemical Processes* J. D. Seader, 1985 **The British National Bibliography** Arthur James Wells, 2004

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