Two-Phase Flow, Boiling, and Condensation: In Conventional and Miniature Systems

S. Mostafa Ghiaasiaan
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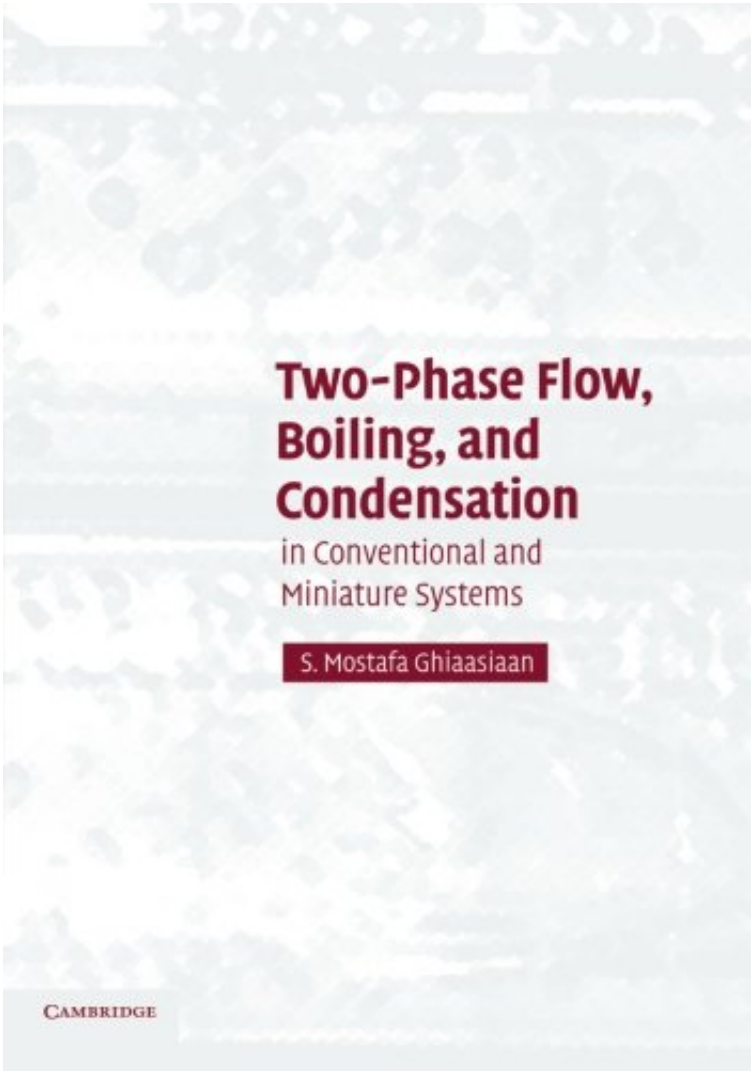

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0 of 0 people found the following review helpful. Two-phase flow,Boing,and Condensatin in Conventioal and MinitureSystemsBy Kenzo MishimaThis book is written about two-phase flow in detail. There are many useful equations and correlations to design chemical equipments. But there is no page of heat transfer and pressure drop with phase-change on tube banks.

This text is an introduction to gas-liquid two-phase flow, boiling and condensation for graduate students, professionals, and researchers in mechanical, nuclear, and chemical engineering. The book provides a balanced coverage of two-phase flow and phase change fundamentals, well-established art and science dealing with conventional systems, and the rapidly developing areas of microchannel flow and heat transfer. It is based on the author's more than 15 years of teaching experience. Instructors teaching multiphase flow have had to rely on a multitude of books and reference materials. This book remedies that problem by covering all the topics that are essential for a graduate first course. Among the important areas that are discussed in the book, and are not adequately covered by virtually all the available textbooks, are: two-phase flow model conservation equations and their numerical solution; condensation with and without noncondensables; and two-phase flow, boiling, and condensation in mini and microchannels.

About the AuthorMostafa Ghiaasiaan is a Professor in the George W. Woodruff School of Mechanical Engineering at Georgia Tech. Before joining the faculty, Professor Ghiaasiaan worked in the Aerospace and Nuclear Power industry for 8 years, conducting research and development activity on modeling and simulation of transport processes, multi-phase flow, and nuclear reactor thermal-hydraulics and safety. His current research areas include nuclear reactor thermal-hydraulics, particle transport, cryogenics and cryocoolers, and multiphase flow and change-of-phase heat transfer in microchannels. Professor Ghiaasiaan has more than 150 publications, including 80 journal articles, on transport phenomena and multiphase flow. Ghiaasiaan was made a Fellow of the American Society of Mechanical Engineers (ASME) and has been a member of that organization and the American Nuclear Society (ANS) for more than 20 years. Currently he serves as the Executive Editor for Asia, Africa, and Australia, of the journal Annals of Nuclear Energy.