Foreword

I am very pleased to introduce to the Series what I believe will become a standard reference in multiphase flow in future years. Research in this area has increasingly been focussed on the prediction of the position and temporal movement of phasic interfaces, using the so-called interface tracking methods. The simplest example of this type of system is the rise of a single bubble in a stationary fluid. However, systems of ever-increasing complexity are being predicted and, as with all numerical methods, it is difficult to establish the accuracy and efficacy of the techniques being employed, particularly when there is a dearth of experimental data for validation.

One way of increasing confidence in predictions is to compare the methods used with standard "benchmark" examples. In this book, no less than 33 separate test cases are presented in sufficient detail to allow extensive testing of interface tracking methods. The Editors (Drs. Jamet, Lebaigue and Lemonnier) have drawn together an impressive team for this Herculean task and the outcome will, I am sure, be immensely influential in progressing this important activity.

G. F. Hewitt
Series Editor