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Continuing a Tradition

Many of us were disappointed when *Industrial and Engineering Chemistry* discontinued publication after 1971. We enjoyed the articles and features and especially found the Annual Reviews of real value. The cessation of the latter was one of the principal reasons the Journal inaugurated its own Review Series. We were very pleased, therefore, to find that the American Chemical Society has now published its first *Annual Reviews of Industrial and Engineering Chemistry*. The first volume is dated 1970 and was published in the spring of 1972 under the able editorship of Dr. Vern W. Weekman, Jr. The preface by Dr. Weekman so clearly states the underlying philosophy of the work, and we find it so compelling that we have published it below in full. The book, at a bargain price of \$12.75, is an excellent investment for all chemical engineers who desire to keep abreast of new developments.

PREFACE

A common lament on the demise of *Industrial and Engineering Chemistry* (monthly) was the loss of the Annual Review Series. This Series had continued unbroken for 25 years and had grown to cover most fields of industrial chemistry and chemical engineering. The new IEC Annual Review Series, published by the ACS Books Department, will carry on this tradition by issuing the annual reviews under a single cover. As with its predecessor, the Annual Reviews will be co-sponsored by the Industrial and Engineering Chemistry Division of the American Chemical Society. The editorial board is appointed by the IEC Division and the Annual Review editor.

The present reviews cover a broad range from heat and mass transfer through applied mathematics and process control to plastics and crystallization. Some fields are currently so active on such a broad front that multiple reviews have been necessary. For example, in the general area of reaction kinetics, four reviews have been prepared covering homogeneous kinetics, catalytic kinetics, reactor engineering and design as well as stability and control of reactors. In the mixing area, two reviews cover the general field of solids, liquids, and gas mixing. Most of the authors will be familiar to readers of the old review series with a few new ones added. The list of authors represents an almost even balance be-

tween industry and academia.

The review authors have been encouraged to identify and discuss the more significant papers, which in their opinion have the greatest potential value, and to provide for the reader a perspective on the relationship of the current work with that published previously. In addition, some of the authors have also prepared more exhaustive lists of current work in their fields.

By providing a broad view of a given field from new principles to applications, the reviews will hopefully continue to promote more cross-fertilization between theory and practice. In this era of searching questions on the relevance of research and development activities the purveyors of theory are under renewed obligation to "market" their results. Too many theorists direct their papers at that tiny minority of their colleagues who can understand them or be impressed by them. Apparently some theorists feel that virtue and excellence will somehow triumph since little effort is made to translate their results to a language more understandable to the practitioners. Certainly more attention to pointing out potential applications along with examples could significantly shorten the gap between theory and practice. On the other hand, the industrial practitioners must be reminded that the most fruitful experimental or development work is always that which seeks to identify critical phenomena and prove or disprove the hypotheses involved. Since the time of Bacon "to test against theory" is still the most effective and efficient experiment. It is sad, but true, that many industrial laboratories have been performing the same experiments for 20 years to determine minor variations in feed-stocks, process conditions, or product properties because they do not understand the fundamental principles involved. Clearly in these cases theory can speed practice.

Future reviews will hopefully be published with less lag time than the present 1970 reviews now that most of the re-birth pains have been overcome. Since not all fields can sustain an annual review, some reviews will appear biennially while others may appear only as the need arises. It is hoped that new reviews can be added, particularly in such growing areas as pollution control and biochemical applications.

January 1972 Vern W. Weekman, Jr.