

Foreword

This monograph was prepared by the American Industrial Hygiene Association for the Division of Technical Information, United States Atomic Energy Commission. The publication is a part of the continuing effort of both organizations to extend the field of technical knowledge so as to safeguard the health and well-being of persons exposed to toxic or deleterious material. Production of this work is also compatible with a basic objective of the American Industrial Hygiene Association, which is to increase the knowledge of industrial hygiene through interchange and dissemination of technical information.

The measurement of particle size distributions and the interpretation of the role of particle size in physiological effects has been an important part of industrial hygiene dating back to very early history. The hectic episodes of silicosis in the early 1930's provided considerable impetus to studies on and measurements of dust particle sizes and behavior. The technical information on particle properties, kinetic behavior, sampling instruments, and interpretation presented in this monograph will be most valuable not only to industrial hygienists but also to personnel working in the many cognate disciplines dealing with particle behavior—both physical and physiological.

A considerable amount of previously unreported work is contained in this monograph. Consolidation of information, supplemented by extensive references to the original reports appearing in the literature, makes this work an important contribution to the reference library of individuals interested in all phases of environmental health.

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