

SYMPOSIUM ON CLEANING AND MATERIALS PROCESSING FOR ELECTRONICS AND SPACE APPARATUS

INTRODUCTION

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The ASTM by long tradition has generated over 3000 specifications and methods of test for materials in many areas and technologies, and obviously has a basic interest in new technologies from this standpoint.

Committee F-1 on Materials for Electron Tubes and Semiconductor Devices,² comprising ten subcommittees dealing with many of the materials phases in electronics, has for several years responded to the strong industry needs to participate in the problems of developing and maintaining ultraclean conditions in the areas for processing electronic materials and devices. This work has been carried on in Subcommittee X on Control of Contaminants, which has also included maintaining of ultrapurity in solvents, processing liquids, and analytical and processing techniques for electron devices.

The industry response on a wide scale has been great, as many engineers have used the ASTM committees and meetings as a forum for debates and discussions to help deal with the many problems in this area. In particular, specifications coming out of the effort of the group include method of test for: Hydrophobic Surface Films by the Atomizer Test (F 21 - 62 T), Hydro-

phobic Surface Films by the Water-Break Test (F 22 - 62 T), and Particulate Contamination on Surfaces of Small Electronic Components, Measuring and Counting (F 23 - 62 T).

Concurrent with this effort, the extensive field interest resulted in the committee sponsoring symposia in Philadelphia, Pa., in October of 1958, and in April, 1961, and has further resulted in the publication by the Society of the principal papers of the symposia under the titles "Cleaning of Electron Device Components and Materials" (STP 246) and "Materials and Electron Device Processing" (STP 300).

The continuing emphasis in these material areas and recognition of the amount of industry interest in the west coast area that might benefit, resulted in this third symposium entitled "Symposium on Cleaning and Materials Processing for Electronics and Space Apparatus," largely organized by D. E. Koontz of the Bell Laboratories and held in Los Angeles in October of 1962.

As chairman of Committee F-1, it is a pleasure to bring to you this new compilation of the twenty-five papers, selected by special review from the total of the thirty-two actually given at the Symposium.

Committee F-1 trusts that the readers will find this symposium of interest and help.

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² The name was changed to Committee F-1 on Materials for Electron Devices and Microelectronics by Board action, September, 1963.