

Introduction

This symposium was the fourth on the subject of erosion to be sponsored by ASTM, the first three having been held in 1961, 1966, and 1969, respectively. These symposia have contributed to the establishment of a common forum for scientists and engineers working in the areas of cavitation and impingement erosion and wear of materials. Specifically, attention was focused on understanding the interfaces of these problems with corrosion. D. H. Kallas, through his many years of experience in the field of marine corrosion-erosion problems, was able to set the theme of the symposium in his introductory papers. Erosion-corrosion problems were dealt with in detail in several papers presented, and metallographic studies of the basic mechanism of material deformation and fracture were also reported.

A new model for rain erosion phenomena was presented. Also, erosion of nonmetallics received considerable attention. The effects of fatigue, dynamic recovery, and failure mechanisms of some rain erosion-resistant coatings were discussed. Solid particle erosion of glassy materials was presented, as well as the wear characteristics of plasma-deposited aluminum bronze. Many new findings that could be used in practical applications were highlighted during the discussions that followed the presentation of each paper, and these also are recorded in this volume.

It was highly encouraging to note the international response to this symposium, which has contributed greatly to the promotion of knowledge in the area of erosion and wear of materials in corrosive environments.

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