

# SYMPOSIUM ON EXTENSION OF SENSITIVITY FOR DETERMINING VARIOUS CONSTITUENTS IN METALS

---

## INTRODUCTION

BY NEIL E. GORDON, JR.<sup>1</sup>

ASTM Committee E-2 on Emission Spectroscopy and Committee E-3 on Chemical Analysis of Metals jointly sponsored this symposium on Extension of Sensitivity for Determining Various Constituents in Metals. The papers presented dealt with methods for determining extremely small amounts of various elements in metals, what the limits of detection were for these elements, what obstacles must be overcome to obtain increased sensitivity, and what might be done to overcome these obstacles. General topics included: (1) separation and

concentration techniques, (2) electro-analytical methods, (3) optical emission spectroscopy, (4) X-ray spectroscopy and electron probe analysis, (5) radioactivation analysis, and (6) mass spectrometry. The formal papers were presented by speakers chosen from men of recognized knowledge of the subject in the various fields of testing, and who had extensive experience in practical applications. It is hoped that the efforts of the committee, and the labor of the men who gave generously of their time and energy and made the symposium a success, will have a constructive influence in promoting the interest of better and more economical methods for the analysis of metals.

---

<sup>1</sup> Atomic Power Department, Westinghouse Electric Corp., Pittsburgh, Pa.; Symposium Co-Chairman.