## SYMPOSIUM ON THE IRREVERSIBLE EFFECTS OF HIGH PRESSURE AND HIGH TEMPERATURE ON THE PROPERTIES OF MATERIALS

## INTRODUCTION

## By Larry Kaufman<sup>1</sup>

On February 4, 1964, a Symposium on the Irreversible Effects of High Pressure and High Temperature on the Properties of Materials was held at the Sheraton Hotel in Philadelphia. The symposium, which was part of the ASTM International Conference on Materials, consisted of a morning and an afternoon session, each containing three papers. Although there have been more than half a dozen conferences on high pressure held during the past few years, this meeting was unique in that it dealt primarily with irreversible effects produced by high-pressure treatment and did not concern itself with equipment, techniques, or problems of pressure calibration. The subject matter presented dealt with reviews and reports of new research on the irreversible changes produced in nonmetallic inorganic materials, organic substances, electronic materials, metals, and alloy steels. In addition, two papers were devoted to compound synthesis and effects of pressure on metal plasticity and forming.

The proceedings of this conference will be of lasting interest to physicists, chemists, and engineers who are interested in evaluating the potentialities of the high-pressure variable in generating useful technological innovations.

I am grateful to E. V. Clougherty of ManLabs, Inc. Cambridge, Massachusetts and to A. A. Giardini of the U. S. Army Electronics Research Laboratory, Fort Monmouth, N. J. for acting as chairmen of the technical sessions and aiding in the organization of the meeting.

 $<sup>^{1}\,\</sup>mathrm{Conference}$  chairman, director of research, ManLabs, Inc., Cambridge, Mass.