

I - INTRODUCTION

The exact measurement, or even the simple evaluation of the pressure which is built up inside a high pressure solid medium apparatus, has from the beginning always been a problem. It was only in piston-cylinder apparatus that a direct measurement of the pressure was possible. Thus it became feasible, making use of the phase transitions of a number of metals, to evaluate the pressure which was built up in more intricate apparatus like "belt" below 60 kbar.

Above 60 kbar there is much confusion taking into account the various datas that have been published to day (table 1). Lately, during the same year 1966, two teams, one from U. S. A. working with Professor HALL, (II) the other from Soviet Union working with Professor VERESCHAGIN (13) published in earnest that the high Bismuth transition occurred at 76.5 ± 2 kbar for the first one, at $89.3 \text{ kbar} \pm 1 \%$ for the second one.

The research workers in the high pressure field cannot remain unconcerned by that state of the art, if they wish to make more precise measurements.

.../...