

(Reprinted from *Nature*, Vol. 188,
December 24,

Pressure Dependence of Resistivity of Indium Antimonide to 70,000 Atmospheres

THE pressure dependence of the resistivity of indium antimonide has been measured by Keyes¹ up to 12,000 atmospheres. We have extended the range to 70,000 atmospheres. In addition to the type of change found by Keyes we have observed a resistance change on melting when the temperature was considerably below the zero pressure melting-point of 796° K.

The measurements were made in a tetrahedral apparatus constructed at the National Physical Laboratory following a design of the National Bureau of Standards². This allows the use of a standard hydraulic press. In our apparatus the pyrophyllite

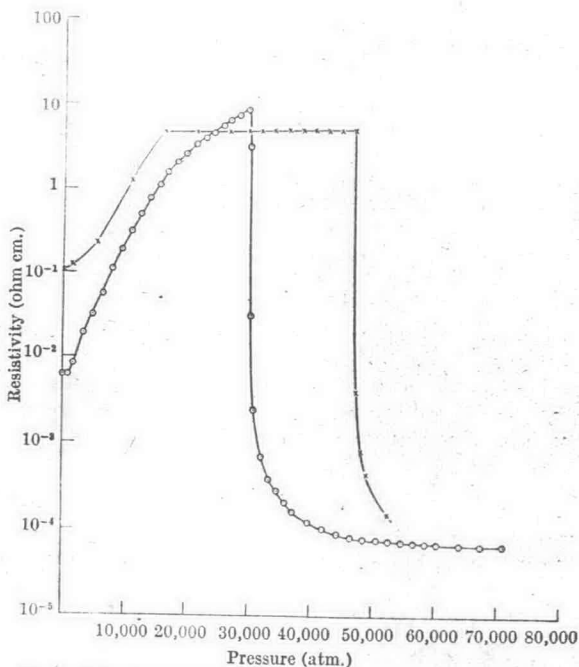


Fig. 1. Behaviour of single-crystal specimens of indium antimonide at two temperatures. *n* type $\sim 4 \times 10^{14}$ electrons/c.c. Specimen size, $1\frac{1}{2}$ mm. \times $1\frac{1}{2}$ mm. \times 3 mm. \circ , 293° K.; \times , 184° K.

JUL 10