Curves : 1) 77°K ; 2) 4.2°K. a) Nom pressure ; b) P = 1750 atm ; c) pressure removed.

Key

1) kOe
2) B
3) C
4) b
5) c

It seemed interesting to make a more detailed study of the effect of pressure on the galvanomagnetic properties of bismuth with different impurity concentrations, and also to study the nature of the variation in the galvanomagnetic properties of bismuth with the type of impurity. As impurities we chose Sn and Te, these elements being situated in columns of the Mendeleev table neighboring that of bismuth.

In order to prepare the samples, a standard alloy containing about 1% of impurities was diluted with bismuth to the desired concentration. Single-crystal samples, having the form of a rod 3 mm in diameter and 15 mm long, were grown in vacuum by the method of P. L. Kapitsa /1/. In order to discover the way in which the impurities were distributed, bismuth single crystals containing traces of radioactive tin were prepared under identical conditions. The maximum inhomogeneity in the impurity distribution along the measured part of the sample (as estimated from radiographs) was no greater than 20%. As conducting leads we used