THE MAGNETORESISTIVITY OF SEMIMETAL BICRYSTALS $Bi_{0.91}Sb_{0.09}$ IN A STRONG MAGNETIC FIELD

F.M. Muntyanu[1], A. Gilewski[2], J. Warchulska[2]
[1]Institute of Applied Physics, Academy of Sciences of Moldova, Academiei Str. 5, MD-2028 Chisinau, Moldova
[2]International Laboratory of High Magnetic Fields and Low Temperatures, ul. Gajowicka 95, 53–421 Wroclaw, Poland

9.7 cm

The n/semimetal—n/semiconductor type electron phase transition in the transition layer of semimetal bicrystals under a magnetic field is investigated. The observation of the electron phase transition requires a strong magnetic field (about 40 T). Detailed investigation of bicrystals, consisting of two monocrystal blocks and the transition layer under strong magnetic field, allowed to reveal anomalies of various physical properties determined by the reconstruction of the energy spectrum connected with a rotation of the Fermi surface in the transition layer of bicrystals. The observed n/semimetal—n/semiconductor transition gives rich information about the particle-particle correlations in the transition layer of semimetal bicrystals under a strong magnetic field.

13.4 cm

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Corresponding author :
A. Gilewski

Address for correspondence :
International Laboratory of High Magnetic Fields and Low Temperatures,
ul. Gajowicka 95, 53–421 Wroclaw, Poland
tel: 61-34 69(71); fax:61 27 21(71)

Email address :
gil@alpha.mlspmint.pan.wroc.pl