LONGITUDINAL ELECTRIC CONDUCTIVITY OF LAYERED CRYSTALS IN STRONG MAGNETIC FIELD

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S u m m a r y

Calculations of longitudinal conductivity (LC) along the *c*-axis of layered crystals are carried out with regard for the dependence of the chemical potential of an electron gas on a quantizing magnetic field. Two cases are considered: (i) the relaxation time is constant, and (ii) it is proportional to the longitudinal velocity of current carriers. It is shown that, in the quasiclassical approach, a relative contribution of the oscillating conductivity term to the total LC is greater in the former case, than in the latter one. When the field is so strong that the chemical potential depends on magnetic field, the total conductivity approaches zero according to the B^{-2} law in case (i) and the B^{-3} law in case (ii), where B is the magnetic induction.