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Electrical conductivity of $MnIn_2Se_4$ single crystals in an alternating electric field

N. N. Niftiyev[1], F. M. Mammadov[2], and M. B. Muradov[3]

[1] Azerbaijan State Pedagogical University, Az-1000 Baku, Azerbaijan

[2] Institute of Catalysis and Inorganic Chemistry named after academician M. Nagiyev, Azerbaijan National Academy of Sciences, Az-1143 Baku, Azerbaijan

[3] Baku State University, Az-1148 Baku, Azerbaijan

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The results of an experimental study of the frequency and temperature dependences of the electrical conductivity of $MnIn_2Se_4$ single crystals in an alternating electric field are presented. In $MnIn_2Se_4$, the change in electrical conductivity as a function of frequency can be explained as follows: in single crystals, there are clusters containing localized states with close energies, and electron hopping occurs between them. The activation energies were determined from the temperature dependences of the conductivity. The conductivity in these single crystals is characterized by a zone-hopping mechanism.

Keywords: $MnIn_2Se_4$, alternating electric field, electrical conductivity, frequency, zone-hopping mechanism, activation energy.

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