Mnatsakanov Anton | DP-82 | Variant №5

1 Як залежить від температури електронна електропровідність в діелектриках з упорядкованою і неупорядкованою структурою?

In general, in electronic conduction, the charge is transferred by negatively charged electrons or positively charged electron vacancies - holes, also conductivity increases exponentially with increasing temperature and in strong electric fields it also increases significantly as new charge carriers are excited.
There is also such a thing as thermogenesis. At normal and elevated temperatures, thermal recombination in dielectrics makes a major contribution to conductivity, and dielectrics are not only characterized by thermal generation of electrons (holes), but also by the generation of mobile ions.

Dielectrics with a disordered structure include glasses, polymers, ceramics (polycrystalline material) and amorphous dielectrics.

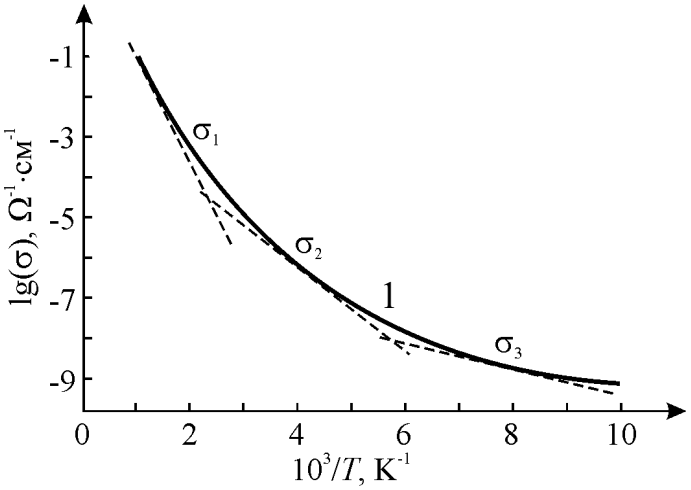


Рис. 1: The electrical conductivity of a dielectric with a disordered structure may look like curve 1.