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The electrical properties of the system $\text{Se}_{90} \text{Ge}_{10-x} \text{In}_x$ ($x = 2, 4, 6$) have been measured in three stages, glassy state, crystalline state and supercooled liquid state. The experimental results introduced the following:

- 1- Increasing of conductivity, dielectric constant, and dielectric loss tangent with temperature for all of compositions in the glassy state.

As the frequency increases, both of dielectric constant and dielectric loss tangent decrease, while the A.C conductivity increases.

- 2- As the sample transformed into the crystalline state it has been found that the conductivity, dielectric constant and dielectric loss tangent depend on the crystallization temperature. Moreover the values of these parameters in the crystalline state were higher than that in the glassy state.

The temperature and frequency dependence of the mentioned parameters indicated a similar behaviour.

- 3- For the first time, it has been used both of the dielectric constant and the dielectric loss tangent to study the phase transformation for the different compositions of the system $\text{Se}_{90} \text{Ge}_{10-x} \text{In}_x$ ($x = 2, 4, 6$) by using of the step wise method at the crystallization temperature 120, 130, 140 and 150 °C.

It has been pointed out, by applying of Avrami equation and other equations, that:

- a- The order of reaction (n) decreases as the crystallization temperature increases for all of the samples.

- b- The activation energy of crystallization increases as the indium content increases in the samples.
- C- The radius of the crystalline domain increases as the annealing time increases.
- d- The diffusion coefficient increases as the crystallization temperature increases.