SCIENCE

ELECTRICAL CONDUCTIVITY

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Electrical conductivity is nothing but the measure of the capability of the material to pass the flow of electric current. Electrical conductivity differs from one material to another depending on the ability to let the electricity flow through them. Protons, electrons, and neutrons present in the material carry the current. Protons carry a positive charge, and each electron carries a negative charge wherever it goes. The flow of electrons inside the material is referred to as the electric current.

Electrical conductivity is denoted by the Greek letter ρ.

The Electrical conductivity is the inverse of the resistivity and is given by

$\sigma = 1/\rho$

Where,

σ = electrical conductivity

ρ = resistivity