

QUESTION

Using the I - V curves how are ohmic materials different from non-ohmic materials

Answer

The main difference between an **ohmic** and a **non-ohmic** materials is whether they follow Ohm's law. An **ohmic** materials would have a linear relationship between the current and the voltage or in simple terms ohmic materials follow Ohm's Law. In **ohmic** materials, current and voltage are directly proportional to each other.

While **non-ohmic** materials, current and voltage are not directly proportional to each other. In a **non-ohmic** material the resistance of the conductors varies according to the variation in the temperature.

Explanation

When plotting the graph, the slope in **ohmic** conductor is a *straight line* while the slope in **non-ohmic** conductor is a *curved line*.

Examples of **ohmic** material are metals and resistors while the examples of **non-ohmic** materials are transistors, diodes and semiconductors.