

Ideal Superconductor Theory:

Abstract: In this theory I will give the ideal solution for superconductor which operates at room temperature. I will give the engineering idea because it is primarily related engineering field, without engineering idea it is highly impossible to solve the problem of superconductors.

Keywords: Superconductors, temperature, electrons, cooper pairs, zero resistance.

Introduction: Superconductors work at very low temperature because at room temperature cooper pairs form and these cooper pairs help to conduct electricity nicely without power dissipation, offer no resistance and conduct current efficiently. Superconductors not work at normal room temperature because at room temperature the energy of the electron interaction is quite weak and the pairs can be easily broken up by thermal energy. So keeping these cooper pairs in such constant paired mode is special in this theory.

1. Engineering idea of keeping cooper pairs in constant paired mode in superconductors at room temperature:

Explanation: This is not as simple as you think because it is related to engineering. To keep the cooper pairs in constant paired mode or condition you have to add some doping material which keeps the superconductor cool even at room temperature. Take a piece of ice and add fine (fine means powder like) magnetic powder (magnet) in it such that it should reach even in the atoms of hydrogen and oxygen because water molecular formula is H_2O and this molecule contains hydrogen and oxygen atoms. When you add magnetic powder in it (in ice) such that by reaching even in the atoms of hydrogen and oxygen, ice can't melt at room temperature because force of attraction occurs in between the atoms of molecules of ice. Then take this ready made solid prepared ice compound and add it as doping element in superconductor, the superconductor will be cool at even in room temperature and the cooper pairs will not break. It is highly difficult to prepare such type of ice compound which consists of magnetic atoms even in the atoms of hydrogen and oxygen. But this is the only idea to keep the superconductor cool at room temperature. Else add some magnetic powder in water and keep it in fridge but by this process the magnetic powder not reaches even in the atoms of hydrogen and oxygen. Reaching the

magnetic atoms in hydrogen and oxygen atoms of water molecule is important because force of attraction occurs between atoms of water molecule. This is the only idea to make the superconductor to work at even room temperature because without keeping the superconductor cool at room temperature you can't keep the cooper pairs constantly in paired mode because it is related to atomic physics and by atomic physics also you can't solve this problem because it is related to electrons and you can't change the properties of electrons instead you have to add such type of prepared doping element. (It is related to inorganic chemistry and engineering).

References:

1. In 1911, while studying the properties of matter at very low temperature, the Dutch physicist Heike Kamerlingh Onnes and his team discovered that the electrical resistance of mercury goes to zero below 4.2 K (-269°C). This was the very first observation of the phenomenon of superconductivity.
2. In Japan, Masato Sagawa pioneered the development and manufacture of a permanent magnet using more abundant neodymium, boron, and iron. Masato patented his innovation in 1982, before devoting himself to working out how to mass-produce his new magnets.