The Cause and Mechanism of Superconductivity

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Abstract: Re-explanation the causes and mechanism of Superconductivity in a new perspective and according to a new atomic theory.

Main Viewpoints and Conclusions:
The essence of Superconductivity is that it is one kind mode of energy storage with no loss or loss rarely of the energy; rather than the conductor lost its electrical resistance.

When at Bose-Einstein condensate (BEC), the extranuclear-charges of all atoms with the same density and polymerized into a single-complete body and agglomerate together with all nucleuses in the material; that is in the state of charges-nucleuses coagulation, and the extranuclear-charges (electronics) can not be moved. Same time, it is also the reason of that insulator more easily enter into superconducting state.

The sole criterion of determining a material whether or not is a superconductor: that is to test whether it have Meissner effect. A material is a superconductor if it with Meissner effect; otherwise, it is not.

References