

Short Communication

Advances in Theoretical & Computational Physics

The Mystery of Electromagnetic Connection

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Abstract

Magnetic field and electric field are two independent states. In order to explore the inner connection between the two transformations, we propose a new magnetic ring theory; it can reasonably explain many phenomena in Interdisciplinary such as magnetic materials, superconductors, and the electromagnetic induction law. What can be determined is that the magnetic field is a subsidiary product of atoms gaining or losing electrons, cannot exist independently, after the magnetic field touches the substance, it transforms into the only electric field, will not disappear in the space, only infinitely diluted.

Introduction

Known by the law of electromagnetic induction, changes in magnetic flux can generate induced electromotive force, Study the essential connection between electromagnetics, can improve electromagnetic conversion efficiency. At here, we prove through the combination of theory and experiment, atoms inside objects gain or lose electrons, will generate the corresponding magnetic ring, the magnetic ring is superimposed to form a magnetic field. Therefore, there is no direct connection between magnetic field and electric field, the transformation of electric field and magnetic field requires the participation of atoms inside matter, the magnetic field is a microscopic field, composed of indivisible magnetic rings.

Rationale

In the article on verifying the essence of magnetization, we get the result [1]. When a conductor moves from space to the N pole of the magnetic field, the conductor itself has a slight positive potential difference change relative to the outside world and returns to zero, then the conductor moves out of the N pole of the magnetic field, there will be an opposite negative potential change and returns to zero, When the conductor moves to the S pole of the magnetic field, the change in the potential difference is exactly the opposite of moving to the N pole, the magnitude of the potential difference has nothing to do with the conductor material, it is positively related to the strength of the magnetic field and positively correlated with the rate at which the conductor moves into the magnetic field.

Results

Magnetic ring theory applies the essence of magnetization Conclusions are obtained in the article verifying the essence of

magnetization, atom loses electron, release energy to the outside in the form of magnetic ring, form an N magnetic ring as shown in Figure S1, the N side of the N magnetic ring is outside, and the S side is inside; On the contrary, if the atom gets electrons, atoms will absorb surrounding energy, Form an S magnetic ring as shown in Figure S2, the S side of the S magnetic ring is outside, and the N side is inside, each atom generates a magnetic ring, same frequency, same direction, superimposed on each other to form a magnetic field, the magnetic field strength is positively related to the number of magnetic rings. From this we can get: The magnetic field is not continuous, composed of indivisible energy; At the same energy level, atom gain or lose unit electrons, the formed magnetic ring has the same width, it means carries the same energy; At different energy levels, the electrons move at different rates, the generated magnetic ring has a different interval frequency; N magnetic ring carries positive energy, S magnetic ring carries negative energy [1].

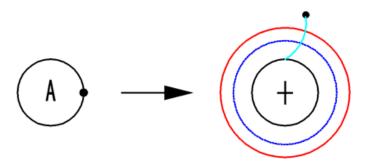


Figure 1: S1

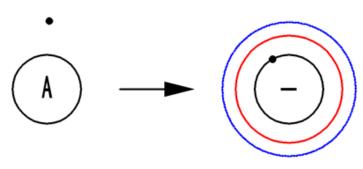


Figure 2: S2

Both magnets and energized wires exhibit magnetic fields to the outside, and their essence is that atoms gain or lose electrons, so there is no magnetic induction line inside the magnet from S pole to N pole; There is a difference between the two, Solenoid formed by winding energized wires, Internal atom gains or losses electronic at the same time, has Good magnetic ring coherence, The magnetic field generated by the superposition is intervals magnetic ring with as shown in Fig S3. The atoms inside a natural magnet gain and lose electrons at different times has poor magnetic ring coherence, The magnetic field formed after superposition is a continuous magnetic ring surface as shown in Fig S4. The superimposed magnetic field strength, determined by the number of atoms gaining or losing electrons, the more atoms gain or lose electrons at the same time, the more magnetic rings formed, the wider the magnetic field after superposition; The better the magnetic ring coherence, the more obvious the magnetic toroidal distinction.

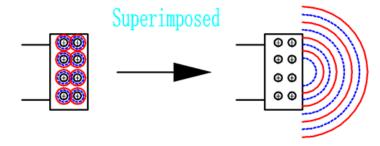
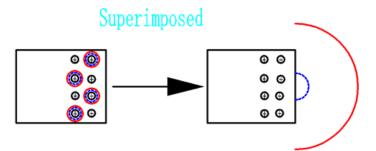


Figure 3: S3



Magnetic Ring Theory Application Electromagnetic Wave

The current oscillates in the loop formed by the inductor coil and the capacitor, generate electromagnetic waves, we take a plate of the capacitor as the research object, the capacitor plate voltage alternately changes between positive and negative values, according to the article verify the essence of magnetization [1]. When the plate voltage is positive, the pole plate loses electrons and produces N magnetic ring; On the contrary, when the plate voltage is negative, The pole plate gets electrons and produces S magnetic ring, when the plate voltage changes from a positive value to a negative value, sometime in the middle, the voltage value becomes 0, when the plate voltage is 0, no magnetic ring is produced, this process causes a gap between the S magnetic ring and the N magnetic ring, so back and forth, will get a magnetic field with alternating N ring and S ring, as shown in Figure S5.

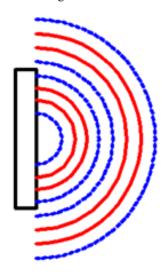


Figure 5: S5

S magnetic ring and N magnetic ring have the same pole face opposite to each other, according to the same pole exclusion principle, as long as there is a conversion between positive and negative plate voltage, the electromagnetic field will continuously radiate outward, hen encountering substances, the energy carried by the magnetic ring acts on the atoms inside the substance, according to the energy carried by S magnetic ring or N magnetic ring, making the atom gain or lose electrons, forming an oscillating current, from this we can get, electromagnetic waves are neither transverse waves nor longitudinal waves, electromagnetic waves are similar to longitudinal waves, but the power of radiation is not vibration, it is repulsive force; electromagnetic waves only have magnetic fields during transmission, the electric field is transformed after contact with the substance; When external load is applied, the oscillating current changes, resulting in different magnetic ring widths, receiving at the receiving end, translate to form the corresponding alternating current signal.

Magnetic Ring Theory Application Superconductor

Three characteristics of superconductors: Fully conductive, fully diamagnetic, Flux quantization. Full conductivity can be understood as all atoms inside the superconductor, the outer electrons all move. It is easy to explain the complete diamagnetic [1]. According to the article verify the essence of magnetization, it can be known, when the external magnetic field touches the superconductor, because all atoms inside the superconductor undergo electronic transitions, there is no normal atom as a carrier for the external magnetic field, carry the energy of its magnetic ring, to gain or lose electrons, so the external magnetic induction line cannot pass through the superconductor, and because the magnetic field of the energized wire has no magnetic poles, repulsion to external magnetic poles, and the energized wires generate magnetic fields with magnets, magnetic ring coherence and frequency are different, cause total rejection.

Conclusion

The magnetic field is produced by atoms gaining or losing electrons, and cannot exist independently, has no direct connection with electric field, the two transform each other through atoms as the intermediate medium. The electric field drives the outer electrons of the atoms to transition to produce a magnetic ring, magnetic rings superimposed to form a magnetic field; Magnetic field meets matter, the atoms inside the substance absorb the energy of the magnetic ring, make atoms gain or lose electrons, gener-

ate electric field, the magnetic field must touch the substance, to changes to an electric field, and then do work by the electric field, Therefore, the magnetic field will not dissipate in space but can only be infinitely diluted. For example, we can receive electromagnetic signals thousands of light years away.

The magnetic field is composed as a single magnetic ring, need mechanical movement, to ensure that the magnetic flux changes, to produce electric field, When N magnetic ring and S magnetic ring alternately appear, it will form an alternating current inside the conductor, this has extremely important reference value for the basic research of electromagnetic waves. The superposition of magnetic fields determines the close connection with quantum science, the energy carried by the magnetic ring has a certain multiple relationship with the light quantum, and the magnetic ring theory promises to connect classical physics and quantum physics.

According to the magnetic field characteristics, I dare to assert, external magnetic field changes, affect the charge distribution inside the magnet, at a specific frequency; magnet is similar to light-emitting diode, and form a directional current, as a power generation device.

References

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