



## **EFFECTS OF LOW FREQUENCY WEAK MAGNETIC FIELD ON THE CARDIOVASCULAR SYSTEM THROUGH THE BRAIN CORTEX**

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*Abstract- In order to study the effect of low frequency weak magnetic field on the cardiovascular system through the central nervous system, this paper design the experiment that is using a rotating magnetic field acts on the cerebral cortex, the different frequency when different parts of the brain, collecting and analysis ECG and blood pressure signal, and discussing the effect of low frequency rotating magnetic field on cardiovascular system through the brain cortex. It proved that a rotating magnetic field can affect blood pressure through cerebral cortex, has different effects on blood pressure by using different frequencies, the effects on blood pressure is not the same because a different position focused on by magnetic field. The results shown by selecting the frequency and location stimulated with rotating magnetic field may have certain therapeutic effect for controlling hypertension.*

**Index terms:** low frequency magnetic field; cardiovascular system; blood pressure; biological effect of magnetic field.