Earth Electric Generator

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Abstract
The purpose of this research is to research the cause of the earth electric generator. In the case of this method, the rotation of the earth and the principle of the electric generator were investigated. The result is that Earth’s magnetic field creates a rotational force that rotates the Earth. As the Earth rotates, it functions as a generator. This generator function produces electrical energy and rotates the Earth. Therefore, the Earth continues to rotate and produce electrical energy as if an electric generator and an electric motor were combined. Electric energy is charged to the earth. Some of the electrical energy is converted into thermal energy.

This thermal energy is associated with volcanoes, earthquakes, and hot springs. The conclusion is that the Earth rotates at high speed to produce electrical energy, and this electrical energy rotates the Earth, and some of the electrical energy is charged to the Earth.

Keywords: Earth Generator, Earth Electric Generator, Magnetic Field, Geomagnetism, Earth Rotation, Celestial Motion, Volcano, Volcanic Eruption, Hot Spring Water, Earthquakes, Climate

1. Introduction
The existing Earth electric generator theory is the dynamo theory (the theory of geomagnetism), which is a theory of rotation of the outer core inside the Earth [1]. The earth electric generator theory in this research is a theory that states that a very large amount of electrical energy is charged to the earth as the earth itself rotates. The Earth rotates at a high speed of approximately 1600 km/h (equator). In other words, as the magnet rotates at high speed, electric energy is generated by the generator principle. Therefore, a very large amount of electrical energy is charged to the earth. Some of the electrical energy is converted into thermal energy. This thermal energy is related to volcanic eruptions, hot springs water, and climate.

2. Electric Generator Principle
The generator principle is Fleming’s right-hand rule. According to Fleming’s right-hand rule, when an object moves in a magnetic field, an electric current flow. That is, electrical energy is produced. The electric generator principle is also used to produce electricity by rotating a magnet in a bicycle generator. It is a known fact that the Earth has magnetic properties in the north-south direction. Earth rotates to the east, so it rotates at 90° to the magnetic field. Therefore, electricity flows when the earth rotates according to the generator principle. In other words, when the Earth rotates, electrical energy is generated.

3. Earth’s Rotation and the Earth’s Electric Generator
Earth has magnetic properties. The Earth has a magnetic field in the north-south direction [2]. Earth’s equatorial regions rotate at approximately 1600 km/h, and midlatitude regions rotate at approximately 1300 km/h. Since the earth has magnetic properties and rotates, current flows as the magnet rotates, as in Fleming’s right-hand rule. In other words, like a generator, it produces electrical energy. This electric energy rotates the earth, so it functions as an electric motor. As the Earth rotates, electrical energy is produced similar to an electric generator. Therefore, the Earth continues to rotate and produce electrical energy as if an electric generator and an electric motor were combined. The electric energy generated by the Earth’s electric generator is charged to the Earth. In addition, electrical energy generated in the sky above the Earth is also charged to Earth through lightning. Some of the electrical energy charged on the earth is converted into thermal energy through internal discharge (same as the principle of internal discharge of a storage battery).

This thermal energy raises the temperature of volcanic eruptions, hot springs and climates. It is assumed that volcanic and hot spring area materials are composed of materials with high dielectric constants that are efficient for charging electrical energy. This electrical energy is converted into heat by internal discharge. That is, it is composed of a material such as water with a high dielectric constant, and the electric energy generated by the rotation of the earth is converted into thermal energy, which causes volcanic eruptions and hot spring water to rise.

Lightning is a phenomenon that occurs during the charging pro-
cess of electrical energy that occurs in the sky above the Earth. Evidence of the generation of electrical energy from the Earth Electric Generator includes the generation of electrical energy that rotates the Earth, the generation of the Earth's magnetic field, the generation of thermal energy from volcanic eruptions, and the generation of hot spring water.

4. Volcanoes and Earthquakes
Some of the electrical energy of the Earth Electric Generator is converted into thermal energy. The electric energy charged on the earth is converted into heat by internal discharge. In the case of a volcano, the electric energy of the Earth's electric generator is charged in the volcanic transition zone and converted into thermal energy. This thermal energy gradually heats the volcanic region transition zone, causing it to rise in temperature and explode. The reason the volcanic cycle theory comes out, such as the volcanic eruption cycle being 50 years, is that it takes time for the temperature of the volcanic area to gradually rise to reach the eruption. It is presumed that the material of the volcanic region has a material with a high dielectric constant (water, etc.).

Water has a high dielectric constant, so it charges electrical energy well. Because of its low electrical resistance, it plays an important role in raising the temperature of the volcanic transition zone. Recently, “Geologists have found a new way volcanoes form”.

In Research News, “Scientists discover a new way volcanoes form”, water is the main substance in the volcanic material [3]. Figure 1 shows the volcanic transition zone (scientists discover a new way volcano form).

5. Development of Electric Energy Charging Facilities for Earth Electric Generators
If electric energy generated according to the rotation of the earth is developed, it is judged that inexpensive electric energy can be secured. Investigate areas with a lot of electric energy charged on the earth and develop those areas. Volcanic and hot spring areas are likely to be areas with large amounts of charged electrical energy. As a method of newly establishing a facility to charge the earth electric energy, the earth electric energy is charged by newly establishing a charging material with a good dielectric constant to charge the earth electric energy.

6. Discussion
The earth has magnetic properties, and since the earth rotates at high speed, it produces electrical energy like an electric generator, and this electrical energy rotates the earth, and some of the electrical energy is charged to the Earth. Some of the electrical energy is converted into thermal energy, and this thermal energy causes volcanic eruptions, earthquakes, hot springs, and temperature rises in magma. It is necessary to examine whether the reason typhoons occur in the equatorial sea is related to typhoons by converting the electric energy of the Earth’s electric generator into thermal energy and raising the temperature of the sea.

In Research News, “Scientists discover a new way volcanoes form”, water is the main substance in the volcanic material. According to this Research News, there is direct evidence that volcanoes form when material deep in the Earth’s mantle's "transition zone", rich in water, crystals and molten rock, seeps to the surface below the volcano. Evidence that water played an important role in volcanic eruptions. Water is a good material for charging electricity because of its high permittivity. Substances such as volcanic sulfur are good for charging electricity when mixed with water. In addition, salt water from the sea is a suitable material for charging systems due to its high dielectric constant and good current flow [4]. Therefore, volcanic material is a good material for charging electricity. The Ring of Fire in the volcanic region of the Pacific Rim is the area where land and sea meet. This is evidence that seawater from the sea seeps into the volcanic area underground and is associated with electrical energy charging and thermal energy conversion.
Data Availability
Data supporting the findings of this manuscript are available from the corresponding author upon reasonable request. Further documentation about data processing is available at Electromotive Force Generated in All Materials under Temperature Difference, doi.org/10.21203/rs.3.rs-1137728/v5

Code Availability
Custom codes that support the findings of this study are available at a dedicated “Causes of Gravitational Waves” (doi.org/10.33140 JRAR.03.01.04)

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Author Contribution
The author (Dong-il Song) confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

Competing Interest
The author declares that there is no competing interest.

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