The Mechanism of Formation of LENR in Earth's Crust

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The importance of electricity in the development of Earth's geology is not readily apparent, it is not a rarity, but fundamental to many processes. Structural breakdowns deep in the Earth's mantle require exceptional conditions, combining the powerful electrification of rocks and the formation of 'weakened zones', partially melted high-conductivity zones which occur in the subduction lithosphere.

The latest seismic and seismological data has made it possible to reveal the rotary mechanism which drives geospheres from the Earth's core towards the surface. The speed of this rotation increases with depth but is made possible only in the presence of a plasma core, of a type similar to ball lightning which has existed since the formation of our planet. The rotary motion of ball lightning (also called plasmoids) has been studied in modern times since it may be the basis of cold nuclear fusion (LENR). Rotation of sub-surface geospheres generates electricity and is responsible for the dynamo effect of planet Earth. Energy produced in this way accumulates in the lithosphere, which has the properties of an electric capacitor.

The plates of this natural condenser are rock strata, and the dielectric medium between them is the fluid that circulates between these layers, which causes a radiative effect and the cooling of nuclear processes. From the standpoint of plate tectonics, these fluids are formed in subduction zones. During absorption in these regions, rocks are ground into powder by the "millstone effect", cause by the different speed of movement of the plates (seams) and geospheres. Deep fluids dissolve and transport soluble rocks (clay, limestone, etc.) over long distances, forming basal packets along which the migration of fluids is favoured. Within these basal packets and karsts electric field strength increases until it exceeds the dielectric strength of the medium, at which point breakdown occurs and these charges are neutralised. Inside the discharge channel plasma is formed in which numerous physical and chemical processes occur. This phenomenon of charge build-up followed by discharges can also occur in the interior of dielectric rocks and voids. Spark discharges in the earth's interior, when a lot of energy is released in a spark channel, can trigger earthquakes.

Proof that such processes occur is provided by the spherical nodules found in all ore and coal mines. Study of these nodules will make it possible to create the correct conditions for the formation of spherical plasma formations with a large kinetic energy. Mine explosions give us some idea of the potential power of this process. During the penetration of productive strata, there are cavities or karsts, which may sometimes contain ball lightning, which miners call "shubins" or"bunnies". It is these highly energetic electric phenomena in the earth's crust that also form Kimberlite explosion tubes.

A different subterranean chemical environment is associated with the presence of plasmas of cold nuclear fusion, in which the transmutation of elements occurs. In these reservoirs there may be a discharge in the form of a spark or current pulse, or just a weak direct current caused by variations in salt concentration in the formation electrolytes. This LENR process is possible because of the presence of plasmas of various forms, which possess both gravitational and magnetic fields and are able to process the surrounding material into geological bodies of different types. It is possible that such processes lead to the formation of various deposits of polymetals, coal, rocks and minerals. We have also conducted the first verification experiments to simulate reservoir conditions: Inside a simple reactor chamber a pressured environment was created in the presence of a magnetic field and electric discharges. Unfortunately, no elemental analysis has been performed, but very promising results were obtained - after the initial excitation of electrical discharges, a voltage appeared on the stator**,** which suggests the formation of a condenser-like structure inside the reactor.