Electric formation of oil and gas in the Earth's crust based on cold nuclear fusion (ICCF)

Tarassenko G.V., Imanbayev Ye.I., Demicheva Ye.A., Bukayev Ye.Z.
Caspian State University of Technology and Engineering named after Sh. Yessenov
(Yessenov University)
Aktau, Kazakhstan
E-mail: gennadiy.tarassenko@yu.edu.kz

Directly electric charges in the Earth are observed by the exits of nodules to the surface, earthquakes, volcanism, and does not contradict the proposed hypothesis of thunderstorm activity in the earth's interior. An electric discharge in a dielectric is accompanied by the detection of a large amount of energy that can cause an increase in temperature along the discharge channel to the value at which a thermonuclear reaction is possible. Electric currents flow in the Earth and this is due to the mechanical rotation of the plasma core and geospheres, which charge the planet itself due to friction. Plasma is a gas consisting of a mixture of atoms, molecules, ions, excited atoms and ions, electrons, and in some cases, free radicals. In plasma, atoms, molecules, and free radicals, when released, have significant chemical activity corresponding to their high kinetic energy. Under certain conditions, the formation and accumulation of free charges occurs in gases, insulating vapors, liquids and solids, then an electric discharge occurs. The hypotheses of the organic and inorganic origin of gas and oil do not consider the mechanisms of product formation from the starting materials. In the scheme of the hypothesis of the inorganic origin of oil and natural gases, it is possible to introduce plasma-chemical processes of gas-oil formation in the earth's crust, this is an essential moment of the formation of a product from carbon and hydrogen, which was not enough in previous hypotheses. The possibility of the formation of gas and oil in an electric discharge is also indicated by the practically feasible reverse operation of electrocracking of oil, the technology of which seems to be sufficiently developed. Similarly, decomposition processes are observed in the discharge of ethane, propane, butane, isobutane, hexane, and other natural and synthesized gases. The polymerization reactions are carried out under lighter conditions of electric discharge compared to the conditions of electric discharge for the cracking mode. This rule allows us to restate the suggestion about the preferred direction in the nature of the reaction of polymerization of gaseous hydrocarbons in a gas discharge and the formation of oil from gas. This process is energetically and thermodynamically more advantageous, so the reactions will occur mainly in the direction of polymerization. It is also appropriate to note that in gas-filled volumes of the earth's crust, there are greater opportunities for powerful electrical discharges to occur than in liquid oil deposits. The energy balance of the flow of discharges in gaseous and liquid dielectric media also develops mainly in favor of discharges in a gaseous medium, rather than a liquid one. The appearance of an artificial ball lightning was observed during a spark discharge in a mixture of air and propane at normal pressures and temperatures. The volume concentration of propane α was less than 5%. The duration of the discharge was 10^{-3} sec. At $\alpha \geq 2.8\%$, the discharge resulted in ignition of the propane mixture in the entire volume of the chamber. At concentrations of $1.8\ \% \leq \alpha \leq 2.8\%$, the discharge did not cause any phenomena. At a concentration of $1.4\% \leq \alpha \leq 1.8\ \%$, a luminous ball of yellow-green color with a diameter of several cm appeared in the discharge, which existed for up to 2 seconds. Electricity is charged by abnormally high reservoir pressures, which lead to the gushing of wells in the fields of Zhetybay, Uzen and Tengiz. Due to the rotation of ball lightning in the earth's crust, ball nodules were formed. Based on the z-pinch, we are conducting research on the creation of spherical nodules and obtaining a new energy source. The rotation of the ball lightning in the reactor will give an EMF (electromotive force) on the stator, and we will get a simple source of energy.