

Scientists from the University of Waterloo have developed a mini-generator that turns a shell of walnuts into a source of pure energy. To work, the device needs only drops of water.

The invention the size of a coin is called Weg (Water-induced Electric Generator). It produces enough energy to nourish small devices – for example, a calculator.

The principle of operation is based on the natural process: when the water is evaporated from the porous surface of the shell, Jonah begin to move, creating an electric charge. At the same time, the shell itself does not require complex processing – it is enough to clean and give the desired shape.

Scientists have experienced different types of walnut shells, and it was the walnut that showed the best result. One WEG module consists of a piece of shell, electrodes, wires, water drops and a 3D printed case. Four such modules were able to power the calculator with a railway screen.

According to the developers, the technology can become the basis for powering small devices in remote areas where there is no electricity. It can be environmental sensors, wearable electronics, medical gadgets or equipment for eliminating the consequences of disasters.