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Scientists have managed to turn CO2 into coal

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The clear objective is **to reduce the concentration in the atmosphere of carbon dioxide**, which is responsible for global warming. What is new is that a team of researchers from the Royal Melbourne Institute of Technology has managed to do this with an economical procedure and, above all, executable at room temperature.

The procedures followed until now, in fact, required high temperatures. Circumstance that has made the techniques developed by scientists difficult to industrialize. At least so far, because the results of the study published in **Nature Communications** promises to turn the tables.

The **research group**, led by Dr **Dorna Esrafilzadeh**, used an alloy of liquid metals consisting of gallium, indium, tin and cerium placed into a glass container crossed by an electric cable. Once the CO2 was inserted into the container and the cable powered, scientists observed the formation of carbon foils on the surface of the alloy. Foils that can be easily removed so that the procedure can be repeated.

An economical model, therefore, and definitely scalable at an industrial level. Not to mention that, as Esrafilzadeh explains, “the coal produced this way is able to store the electric charge, becoming a supercapacitor. And this opens the way to possible uses as a component of the vehicles of the future”.

Although the current applications of this technique allow to have a decisive impact in the fight against climate change. On a planet that is struggling to reduce CO2 emissions, a report by the Global Carbon Project states that in 2018 a **record level** of carbon dioxide released into the atmosphere was reached, a technology that at a reduced cost is able to capture the carbon dioxide already present and reduce its concentration could play a turning point in the fight against global warming.

di Translated by Cervini & Menga (Reviewed by Prof. Robert Clarke)