**Abstract:**

This scientific paper introduces an innovative method for atmospheric carbon capture utilizing electrified copper surfaces. The research outlines a comprehensive series of experiments designed to investigate the feasibility of this approach within controlled laboratory conditions and its potential application in real-world settings. Additionally, the study explores the inventive use of electrical short circuits as a mechanism for capturing carbon at elevated atmospheric levels. The intellectual property rights pertaining to the concepts presented herein are the exclusive property of CanadianCarbon.Org.

**Introduction:**

With the increasing levels of carbon dioxide (CO₂) and methane (CH₄) in the Earth's atmosphere, the need for effective carbon capture solutions is of paramount importance. This paper presents a novel approach wherein electrified copper surfaces are harnessed to attract and accumulate carbon from the surrounding atmosphere. The central hypothesis postulates that through the creation of an electrochemical environment where a single copper plate is electrified from underneath, carbon ions dissociate from both Carbon Dioxide and Methane, gravitating towards the copper surface.

**Experimental Methods:**

**Experiment 1: Electrochemical Carbon Deposition in an Enclosed Environment**

***Part A: Carbon Dioxide (CO₂)***

A controlled environment is established by enclosing a copper plate within a chamber. This copper plate is suspended above an electrified substrate. Carbon Dioxide gas (CO₂) is introduced into the chamber. The electric field generated across the copper promotes the separation of carbon ions from Carbon Dioxide molecules. As these carbon ions detach, they are drawn downward due to the influence of gravity, solidifying and becoming denser. The experiment aims to observe and measure the rate of carbon deposition under various electrical conditions.

***Part B: Methane (CH₄)***

Similarly, within the enclosed chamber, the copper plate remains suspended above the electrified substrate. Methane gas (CH₄) is introduced into the chamber. The electric field established across the copper encourages the separation of carbon ions from Methane molecules. Just as in Part A, these carbon ions are drawn downward by gravity as they solidify and increase in density. The objective of this experiment is to investigate the rate of carbon deposition from Methane under varying electrical conditions.

**Experiment 2: Atmospheric Carbon Capture Using Electrified Drones**

Expanding on the concept of using electrified copper surfaces for atmospheric carbon capture, this research proposes the deployment of drones primarily constructed from copper. These specialized drones ascend to higher atmospheric layers where concentrations of CO₂ and CH₄ are significant. Upon reaching the designated altitude, the drone is programmed to initiate a self-destructive process, causing an electrical short circuit. This setup is anticipated to lead to the deposition of carbon compounds, including copper carbonate (CuCO₃), onto the copper components of the drone. This experiment aims to validate the feasibility of capturing carbon in regions where conventional intervention poses challenges.

**Intellectual Property Rights:**

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**Conclusion:**

The proposed experiments aim to validate the hypothesis that electrified copper surfaces can effectively attract and capture carbon ions dissociating from both Carbon Dioxide and Methane molecules. Successful confirmation of this approach could substantially contribute to advancing sustainable and efficient carbon capture technologies. Furthermore, the inventive utilization of short-circuiting drones for carbon capture at higher atmospheric levels presents a novel and promising application of these principles. Subsequent research and experimentation are necessary to comprehensively evaluate the potential impact of these approaches on mitigating carbon emissions and addressing the complexities of climate control.