Analysis of Carbon Dioxide to Oxygen Using Ultra Violet Light

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In this project a simple and yet a relatively cheap and effective method was used in an attempt to break the atmospheric CO2 into its basic constituents.A closed cubical control chamber was used as a control sample in this experiment. The chamber is made of clear Plexiglas to exhibit all the parts used for this experiment. Plexiglas was carefully chosen due to its capabilities in blocking the harmful UV radiation A low power UV-C light source was used as the source of energy to break the molecules of the control air sample in the chamber. A commercial CO2, CO and O2 monitoring system was used to measure the changes in the concentrations of both CO2 and CO in the control air sample in the chamber. The initial results of this promising experiment show a drop of more than 500 parts per million (PPM) in the CO2 concertation over the duration of the experiment. As a result of this drop in CO2 concentration, the CO content of the control air sample shows an increase by more than 10 ppm. This indicates that the CO2 is actually breaking into O and CO. The large difference in the concentration drop of CO2 and the concertation increase of CO may be attributed to the fact that even the CO molecule is also being broken into C and O. A fiberglass filter was used as a closed cycle filtration system to remove any resulting carbon from the treated air sample. This simple experiment can be a first step towards realizing simple and practical instruments that can help humanity to clear the mess it created with its overwhelming abuse of earth’s atmosphere. This is one small step in securing a better earth for future generations.

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