## GAIUS OLUWATOBI FASHORO JUNIOR SECONDARY SCHOOL ONE REDEEMER'S INTERNATIONAL SECONDARY SCHOOL No 8, Redeemer's Garden, Karji, Ibrahim Yakowa Express Way, Kaduna, Kaduna State

## **GLOBAL WARMING – AN ATMOSPHERIC CARBON CAPTURE DEVICE CONCEPT**

The accumulation of carbon-dioxide, methane, nitrous oxide, and fluorinated gases from all manmade activities is causing an increase in the greenhouse effect and, consequently, global warming. If I could invent something new, I would create a device that captures and converts carbon-dioxide into oxygen at an unprecedented scale to address global warming and reverse climate change. The device would capture and store carbon-dioxide ( $CO_2$ ) from the atmosphere, reducing the amount of greenhouse gas in the air and helping to mitigate the effects of global warming. This invention would be called the Atmospheric Carbon Capture Device (ACCD).

Due to human activity, the temperature of our planet has increased by more than 1°C in the space of 120 years. Human-induced global warming is currently increasing at a rate of 0.2°C per decade. If we do not remedy the situation immediately, in less than 50 years, we will have reached a temperature increase of 2°C above pre-industrial levels. The ACCD would be a revolutionary technology that utilizes advanced nanotechnology and artificial intelligence to capture CO<sub>2</sub> molecules from the atmosphere, oceans, and industrial emissions. Unlike the CO<sub>2</sub> reader, this device would then convert the captured carbon-dioxide into oxygen through a proprietary process, releasing pure O<sub>2</sub> back into the atmosphere. The ACCD would work by using an advanced filtering system to capture CO<sub>2</sub> from the air and then store it in a compressed form in underground storage facilities.

The ACCD is an effective way to reduce greenhouse gas (GHG) emissions and contribute to a more sustainable future. It can be deployed on a global scale, with units ranging from small, personal devices to massive industrial installations, a move that will open up lots of new opportunities for us. This invention would not only slow down global warming but also reverse its effects, restoring the planet's natural balance and reducing human influence on Earth's temperature and climate. As the world has become more aware of the impact of climate change, ACCD has become increasingly necessary for improving air quality.

Today,  $CO_2$  accounts for about two-thirds of greenhouse gas emissions, therefore bringing a more cost-efficient carbon capture technology to the market is key to mitigating rising global emissions. By reducing the global carbon footprint, we will accelerate the development and deployment of sorbent technologies that reduce  $CO_2$  capture costs and address a broad range of industrial  $CO_2$  emissions, from low- and high-concentration point sources to direct air capture. Imagine a future where our atmosphere is pristine, and our planet is thriving once more. This will help environmentally burdened communities see a brighter, cleaner future for generations to come. The ACCD would be a beacon of hope, a testament to human ingenuity and our capacity to innovate in the face of adversity.

In conclusion, the ACCD represents a game-changing solution to the pressing issue of global warming. If I could invent something new, this device would be my creation, a symbol of our collective potential to shape a brighter and more sustainable future. Thank you for your consideration.