Paul J. Crutzen (12/03/1933 to 01/28/2021)

- In 1995 awarded the Nobel Prize in Chemistry for his work in studying the formation and composition of atmospheric ozone.
- Studied the ozone layer and climate change.
- He popularized the term ***Anthropocene*** to describe a proposed new geological epoch (era) when human actions have a drastic effect on the Earth.

Coined the Term "Nuclear Winter"

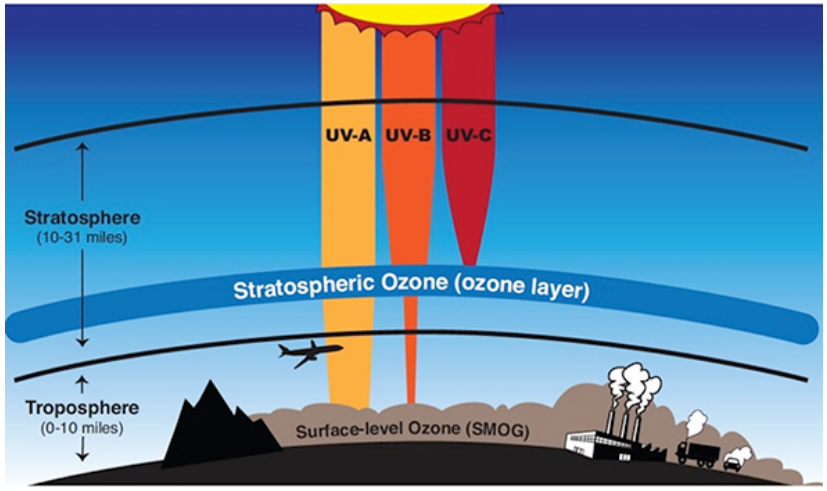
- Developed the concept of "Nuclear Winter."
- Shared the Nobel Prize in Chemistry with Mario José Molina-Pasquel Henríquez and F. Sherwood Rowland.
- Mario Molina discover the Antartic Ozone Hole and proved that Chlorofluorocarbons (CFCs) are a threat to the Earth's Ozone Layer.

What is Ozone & the Ozone Layer?

Ozone is:

- a colorless unstable toxic gas with a pungent odor and powerful oxidizing properties, formed from oxygen by electrical discharges or ultraviolet light. It differs from normal oxygen (O_2) in having three atoms in its molecule (O_3).

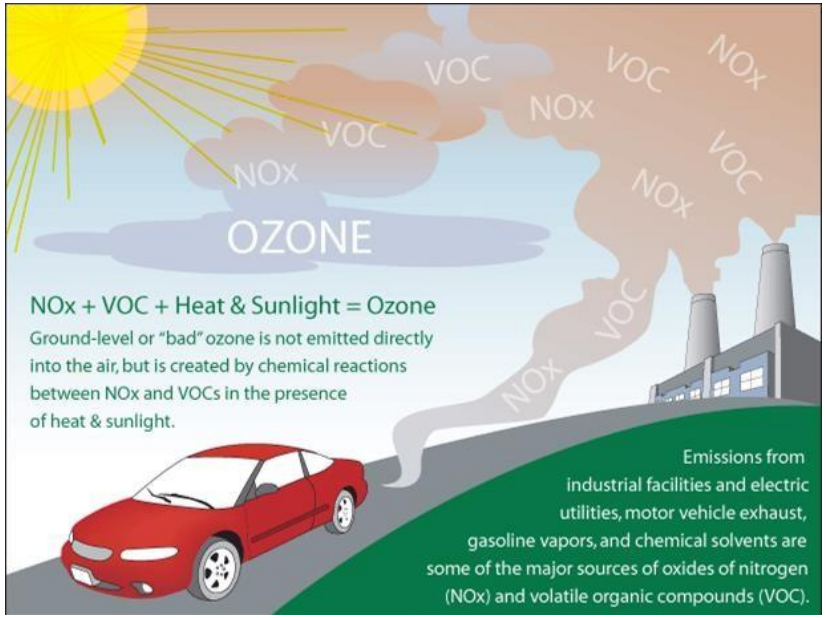
The Ozone Layer is:



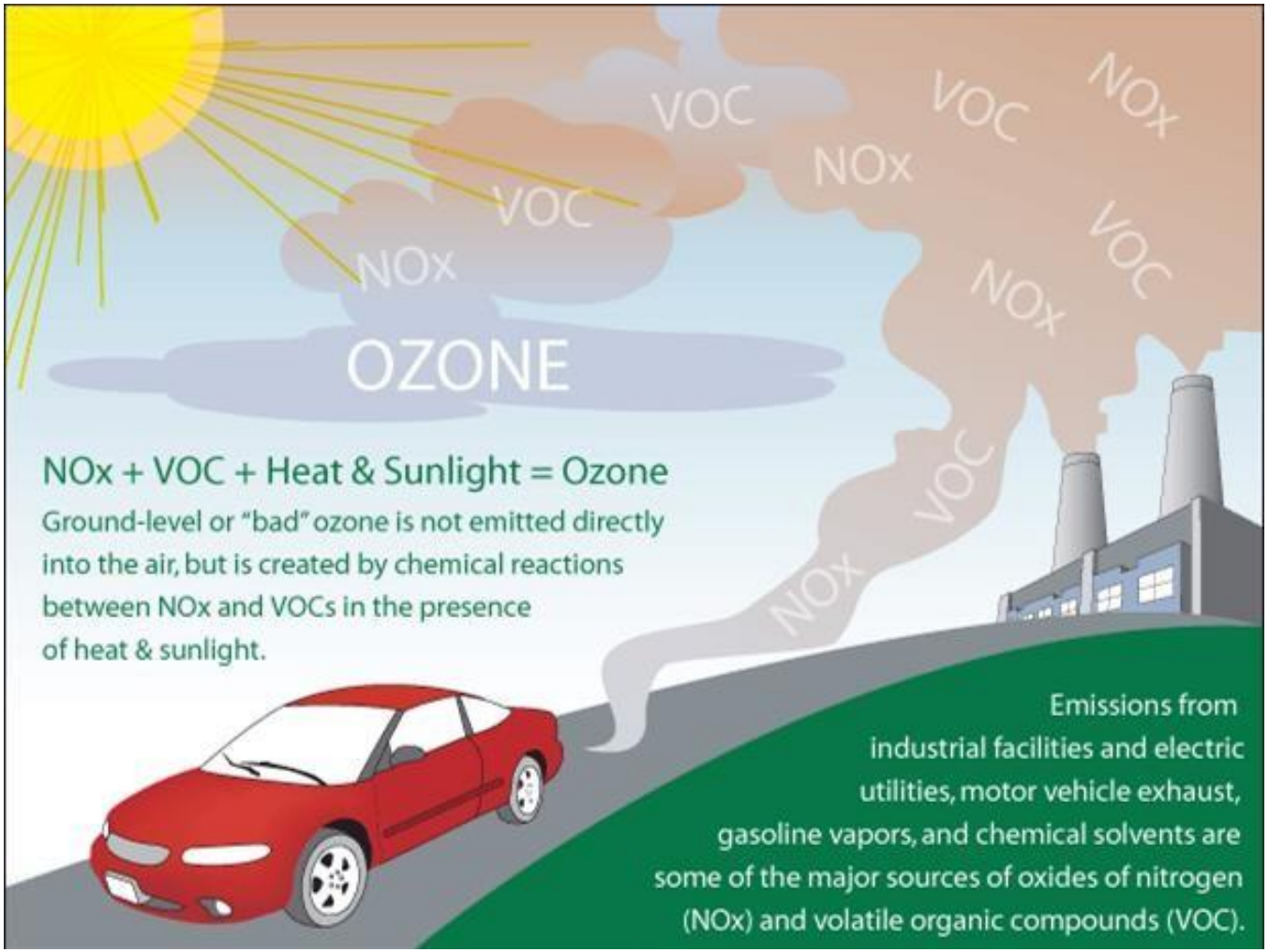
a layer in the earth's stratosphere at an altitude of about 6.2 miles (10 km) containing a high concentration of ozone, which absorbs most of the ultraviolet radiation reaching the earth from the sun.

Ground Level Ozone
"The Bad Ozone"

Ozone at ground level is a harmful air pollutant, because of its effects on people and the environment, and it is the main ingredient in "smog." (US EPA)



How Ground Level Ozone Created



Thank You and May We Take Inspiration and Courage from Your Lives.

- Paul J. Crutzen (1933-2021)
- Mario José Molina-Pasquel Henríquez (1943-2020)
- and, F. Sherwood Rowland (1927-2012)