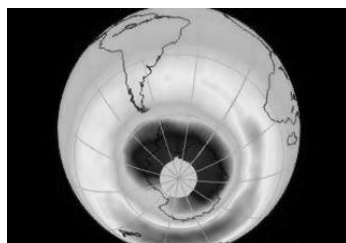


THE ARTIFICIAL METHOD OF THE OZONE LAYER RESTORATION

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The problem of the ozone holes became known for mankind at the 80-th years last century. Ozone loss was first detected in the stratosphere over Antarctica. In 1985, Vienna Convention related to the ozone layer protection was proclaimed. In 1987, one hundred and forty nine nations signed the Montreal Protocol. But these actions didn't solve the problem. The ozone holes exist and increase. The biggest ozone hole over Antarctica reached 24 million square kilometers in 2005.



Picture 1. The ozone hole over Antarctica (blue color)

Many scientists affirm that the ozone layer is restoring. It will be recovered in 50 years. In our mind it is not so attractive statements. We want to go to the beach, don't afraid the sun today. That's why we must act today and solve the problem as quickly as possible.

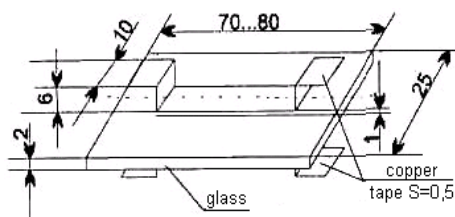
What is ozone? Ozone is a blue gas with a rough smell that is constantly formed under the influence of ultra-violet radiation from the sun or during the electric discharge of the lightning in the stratosphere. Ozone molecule absorbs damaging ultra-violet rays and safe ultra-violet rays reach the earth. That's why the ozone layer is called the sun-glasses of the planet. If it isn't the ozone layer everything will die on the earth.

Causes for the ozone depletion: 1) the usage of chlorofluorocarbons, known as CFCs or Freon, which dissociate into dangerous chlorine compounds. These CFCs commonly used in fridges; 2) the flying of the air-craft leading to nitric oxide release from the funnel gases, particularly the launches of the spacecraft such as American Space Shuttles.

The natural formation and dissolution of ozone was damaged last time. Unnatural dissolution of ozone must be stopped or the ozone layer must be restored by an artificial method. It suggests the using of the ozone restore technology.

We propose to project and to make the ozone production device – “ozonator”. It will use the property of the air to form ozone during an electric current or arc on the emitter passes through the air.

The picture 2 shows the main worker area of the ozonator. The device only needs the electricity and the atmospheric air cleared of the dust. Other recourses are not necessary.



Picture 2. The emitter construction

Other recourses are not necessary.

The production of 1 cubic meter of ozone demands 2000 kilowatts of electricity. The average price for 1 kilowatt of electricity in the world is 2 sent, thus the production of 1 cubic meter of ozone will cost 40\$.

Ozone can be transported up into the stratosphere in liquid state, under the high pressure and at the temperature 90 degrees or 120 degrees of frost by air-fighter AH 124"Ruslan". Around 80 tones of liquid ozone can be delivered at altitude 12-14 kilometers for one flight. The exact place of ozone release can be considered through the gas-analyzer. Ozone released into the stratosphere will be transformed into a gas. It will rise to the upper atmosphere because its volatility more than the air volatility in 1,62 times. It is necessary to release ozone by night and at the lowest temperature, because ozone quickly decomposes to oxygen by sunlight. But ozone atom is stable at the temperature 73 degrees of frost.

3 cubic meters of ozone eliminate 1 square kilometer of the ozone hole. In order to eliminate the ozone hole over Antarctica completely 72000000cubic meters of ozone is required. 72000000cubic meter of ozone can be transported for 700 flights. It is necessary to remember the amount of ozone reactions with chlorine, fluorine, nitric oxide, which catalyze the ozone depletion. One molecule of these substances removes from one thousand to hundred thousand ozone molecules. Thus, 700 flights by one thousand ozone molecules is 700 thousand flights.

Those countries should pay for electricity, equipment, fuel and the tenancy of the plane, whose contribution to the destruction of the ozone layer is the biggest. They are: United States, Japan, United Kingdom, Germany, France, Russia.

If these countries refuse to pay the problem of the ozone layer can be solved in other way: the ozonator can be placed directly in Antarctica. The ozone will be released from the funnel 10-20 meters in high during the polar night. Ozone will rise to the stratosphere and step by step eliminate the hole. The electricity for the ozonator can be received from the gas electro producer. There is a great number of the gas deposits in Antarctica, which are prohibited from the countries using. But it can be used for safety of the world. Thus gas can be gained from little gas-works in Antarctica, which have no the industrial value for the future. The cost of the maintenance of the "ozonator-plant" in Antarctica is not so expensive for all mankind. It is estimated in 1 million dollars per year.