

Non Thermal Plasma Against CORONAVIRUS

Of late there had been more concern that the Coronavirus can be spread through airborne transmission.

This had been acknowledged by a few researchers from various universities and being broadcasted and published by a few reputable TV Channels and News media.

In their reports, the Coronavirus spreads most commonly in the air through droplets and small particles that can remain suspended in the air and inhaled.

The smaller particles, known as aerosol, are produced when a person coughs, sneezes, sings, talk or breathes, and it can be inhaled into someone's nose or mouth, and from there into the lungs.



According to the Centers for Disease Control and Prevention in USA (CDC), general indoor setting without good ventilation could increase the risk of contagion due to aerosol/droplets in the air. For example, in an enclosed space with poor ventilation, a person who was breathing heavily while singing or exercising.

The aerosol and droplets thus produced may remain suspended in the air and can infect people who are nearby.

That is why WHO had encourage us to protect ourselves by staying at least 6 feet apart, wear a facemask that cover nose and mouth, and wash hand frequently.

But in reality, there are people who do not like to, or are unable to wear facemask for medical or other reasons. These people may be carriers of the virus with no visible symptoms.

What will happen if these people sneeze, cough or breathe heavily and this happens in the office, restaurants, cafes, elevator or confined spaces?

What if we have a means of bringing down these droplets and aerosol or kill the virus to reduce the chance of spreading?

We are proud to introduce the Air Sterilizer by using **Dehne's Non Thermal Plasma Technology**.

This air sterilizer is able to disinfect the surrounding air, and is effective against Corona Viruses, Influenza viruses and Rhinoviruses.

Our basic model is effective for rooms up to 600 sq. ft., while our other models are suitable for use in Elevators, Public Transportation and etc.

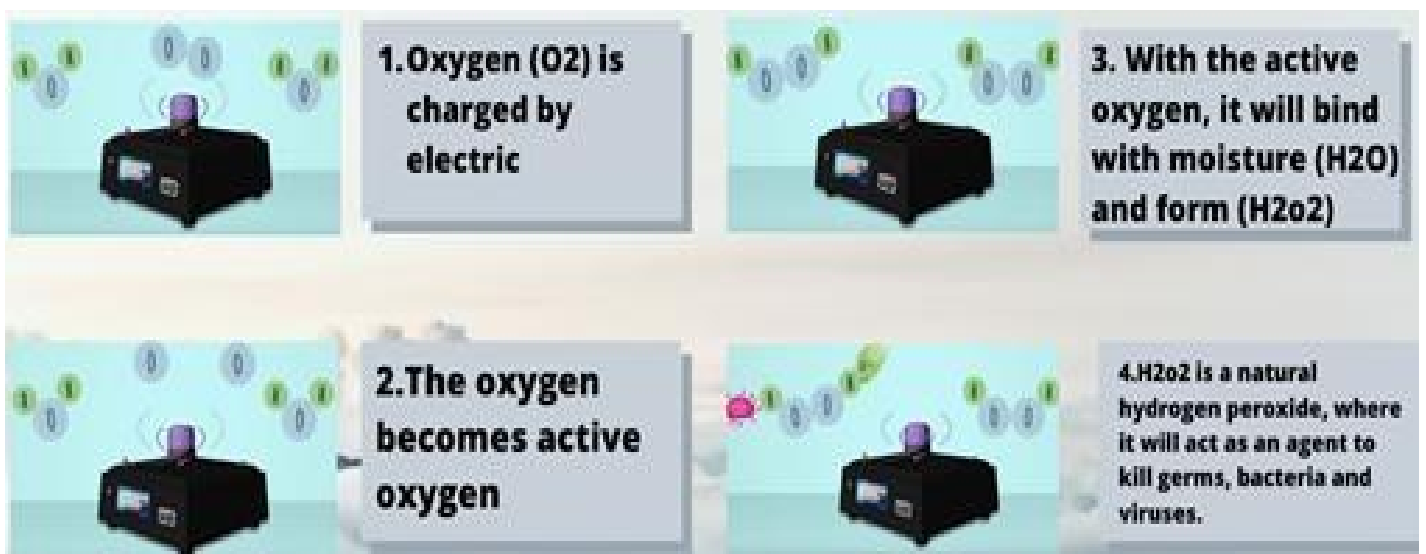


How does it work?

The Plasma Tube (Electrode) in the Non Thermal Plasma device converts the oxygen in the air into Hydroxide Radicals.

The Hydroxyl Radicals oxidizes the primary unsaturated fatty acids in the fats of the cell membrane of Single Cell Organisms (bacteria, fungi), viruses. This destroys the cell membrane and denatures the virus.

Cellular assemblies of higher cells, e.g. plant cells or animal cells, on the other hand, are not affected in any way because the composition of the fats of these cell membranes is different.



References:

Research report:

On 15th April 2020, Research by Dr.Ulrich Schmelz GmbH from the Competence Center for Technical Hygiene and Applied Microbiology, Buchenweg 20 – 34323 Malsfeld, Germany showed that the Plasma Plus Air 3 is able to disinfect the surrounding air, and is effective against Corona Viruses, influenza viruses and rhinoviruses.

On 11th June 2020, The German company, Max Planck Gesellschaft reported preliminary results show that “Cold Atmospheric Plasma (i.e. weakly ionized air) can render Sars-CoV-2 harmless in cell cultures.

”<https://www.mpg.de/14933096/cold-plasma-corona-covid19>

On 31 March 2020, NHK World-Japan announced that “an NHK experiment found that micro in droplets emitted while sneezing and coughing and during conversations stay in the air longer than normal droplets, potentially posing a uniquely dangerous risk for coronavirus infection.”

<https://www3.nhk.or.jp/nhkworld/en/news/ata glance/844/>

As late as 5 October 2020, CNN reported that the US Centers for Disease Control and Prevention (CDC) acknowledge reports that people with Covid-19 transmitted the disease in poorly ventilated and enclosed spaces that often involved activities that caused heavier breathing, like singing or exercise. Such close contact with a person who has COVID-19 than through airborne transmission. – Can infect people who aren't nearby, even after the person with Covid-19 has left the space.

<https://www.cnn.com/2020/10/05/health/cdc-covid-19-airborne-transmission-guidance/index.html>

<https://www.bbc.co.uk/news/health-54500673>

On 20 October 2020, DW reports. Coronavirus and the air we breathe

<https://p.dw.com/p/3kBrp>

On 21 September 2020, Washington Post and Los Angeles Post reported that Jose –Luis Jimenez, a University of Colorado Boulder aerosol Scientist, Donald Milton, a University of Maryland Environmental health professor and expert on aerosol does mention that Aerosols can travel farther than six feet, and is danger if the areas is poorly ventilated and crowded.

https://www.latimes.com/world-nation/story/2020-09-20/coronavirus-aerosol-airborne-spread?_amp=true

<https://www.washingtonpost.com/nation/2020/09/21/cdc-covid-aerosols-airborne-guidelines/?outputType=amp>

<https://www.thestar.com.my/news/regional/2020/04/11/coronavirus-found-in-air-samples-up-to-4-metres-from-patients-study-reveals>

<https://www3.nhk.or.jp/nhkworld/en/news/ata glance/844/>

<https://youtu.be/i453tQHFnG0>



