



# PURE-PLASMA

## Kills Airborne Viruses - Cleaning the Air You Breathe

There is mounting research to suggest that clean air plays a vital role in preventing the spread of COVID-19. While respiratory droplets are considered the primary transmission route, experts strongly suspect some form of aerosol transmission may be occurring. PURE-Plasma HVAC-mounted ionizers use proactive air purification technologies to deactivate airborne viruses safely. Our needlepoint, brush and tube-style products use bipolar ionization, which creates millions of positive and negative ions, a proven method of virus destruction.

### HOW PURE-PLASMA BIPOLAR IONIZATION WORKS POWERFUL PROACTIVE VIRUS KILLING TECHNOLOGY

Our HVAC-mounted ionizers use proactive air purification technologies to deactivate airborne viruses safely. Our needlepoint, brush and tube-style products use bipolar ionization, which creates millions of positive and negative ions, a proven method of virus destruction. The ions travel through the duct system into occupied spaces where airborne viruses exist. What makes this technology even more powerful is that it's continuous. As long as air is flowing into the space, PURE-Plasma ionizers will continue to release ions into the air to combat viruses.

According to Dr. John Oxford, internationally recognized virologist and professor at the Institute of Cell and Molecular Sciences at St. Bartholomew's and The Royal London Hospital, Queen Mary's School of Medicine and Dentistry in London, bipolar ionization has proven to be effective against a number of viruses: H1N1 influenza, H5N1 avian influenza (bird flu), and corona. Dr. Oxford explains, that the ions attach to airborne pathogens, such as viruses causing a chemical reaction on the surface of the cell membrane. This deactivates the viruses, rendering them harmless, so they can no longer spread or cause infection.

In 2017, the Journal of Aerosol Science conducted a study on the effect of air ions on aerosolized MS2 bacteriophage. The MS2 bacteriophage is commonly used as a surrogate for the influenza virus and is now being used as a surrogate for other RNA viruses, such as SARS CoV-1 and SARS CoV-2, the virus causing COVID-19. The results demonstrated the antiviral efficacy of bipolar ionization on the SARS CoV-2 surrogate.

To test the virus-destroying power of our bipolar ionization solutions, Kitasato Research Center for Environmental Science, based in Tokyo Japan, conducted a series of controlled experiments to investigate how these ionizers deactivate an airborne virus. The ionizers were tested against the single-strand RNA envelope structured virus H1N1 (Influenza A), which is similar to coronaviruses. The results showed a reduction in the virus after one hour.

Also, a third-party test conducted by EMSL Analytical, Inc., demonstrated that PURE-Plasma technology reduced other common pathogens such as Staphylococcus aureus (Staph), Staphylococcus aureus (MRSA), and Escherichia coli (E. coli).

**NOTE:** Due to the small size of viruses, many filtration technologies are unable to trap viral particles. As bipolar ionization is non-selective, it offers a unique and safe solution to kill airborne viruses 24/7, helping to reduce the risk of disease and infectious outbreaks. Overall, a Coronavirus outbreak in a building will be extremely disruptive to occupant well-being and organization operations. As always, it is recommended that Operation and HR managers educate building occupants on the personal hygiene best practices outlined by the CDC and WHO, and make sure staff or students who think they are infected stay home and seek help.

**For More Info or to Get Started  
Please Call 1-800-422-7873  
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Healthy Buildings, Healthy People