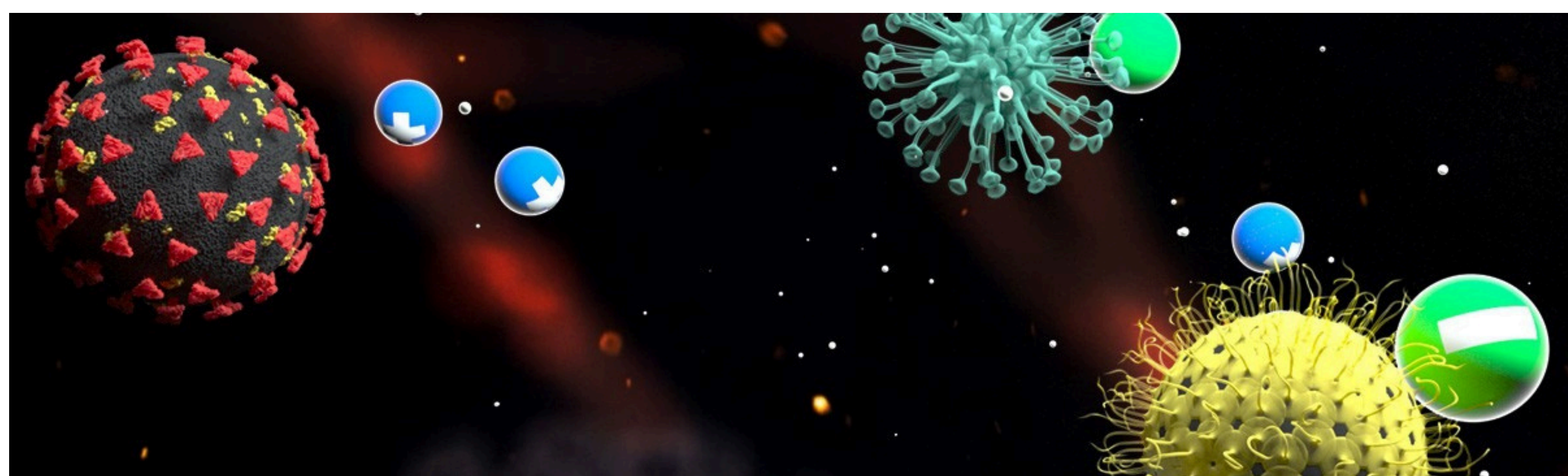


Air Plasma Info Sheet

TRICLEANAIR'S PLASMA AIR PURIFICATION SYSTEMS



How Does Our System Work?

Bipolar ionization is an air purification technology that generates both positively and negatively charged ions, which are then dispersed into the air. These ions bind to airborne particles, pathogens, and other contaminants, causing them to become ionized. The ionization process makes these particles clump together into larger, heavier clusters, making them easier to capture in air filtration systems or causing them to settle out of the air. This technology is commonly used in air purification systems to improve indoor air quality by reducing airborne contaminants and particles.

History Of Bipolar Ionization

Recent advancements have lowered costs and made the installation of bipolar ionization devices easier, prompting many companies to test the technology against the coronavirus in their facilities. Bipolar ionization has been widely used in Europe for years. According to Business Insider, it was introduced to the U.S. in the 1970s for controlling pathogens in food production and proved effective during the 2004 SARS outbreak, as well as outbreaks of MERS, norovirus, and various influenza strains.

How Does TriCleanAir Bipolar Ionization Work Within an Air Purifier?

Plasma Air and TriCleanAir systems both use ionization technologies to purify air. Plasma Air's bipolar ionization removes bacteria, viruses, mold spores, formaldehyde, and VOCs, while TriCleanAir's DBD technology neutralizes pollutants like particulate matter, pathogens, and harmful gases, ensuring cleaner, safer air for your home.

Advantages of TriCleanAir Bipolar Ionization

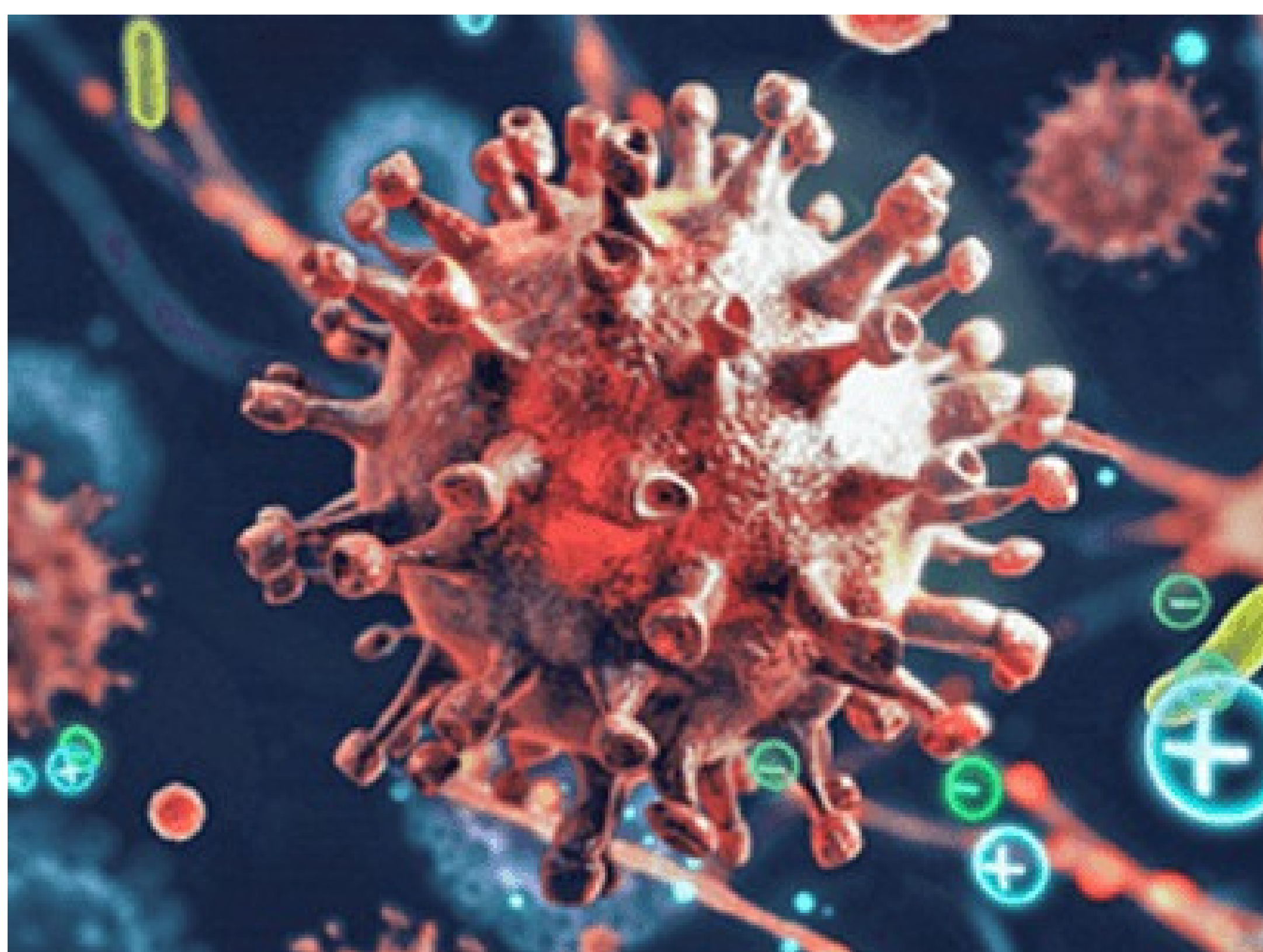
Bipolar ionization is a technology used in air purification systems that provides several key advantages for enhancing indoor air quality. Some of the benefits include:



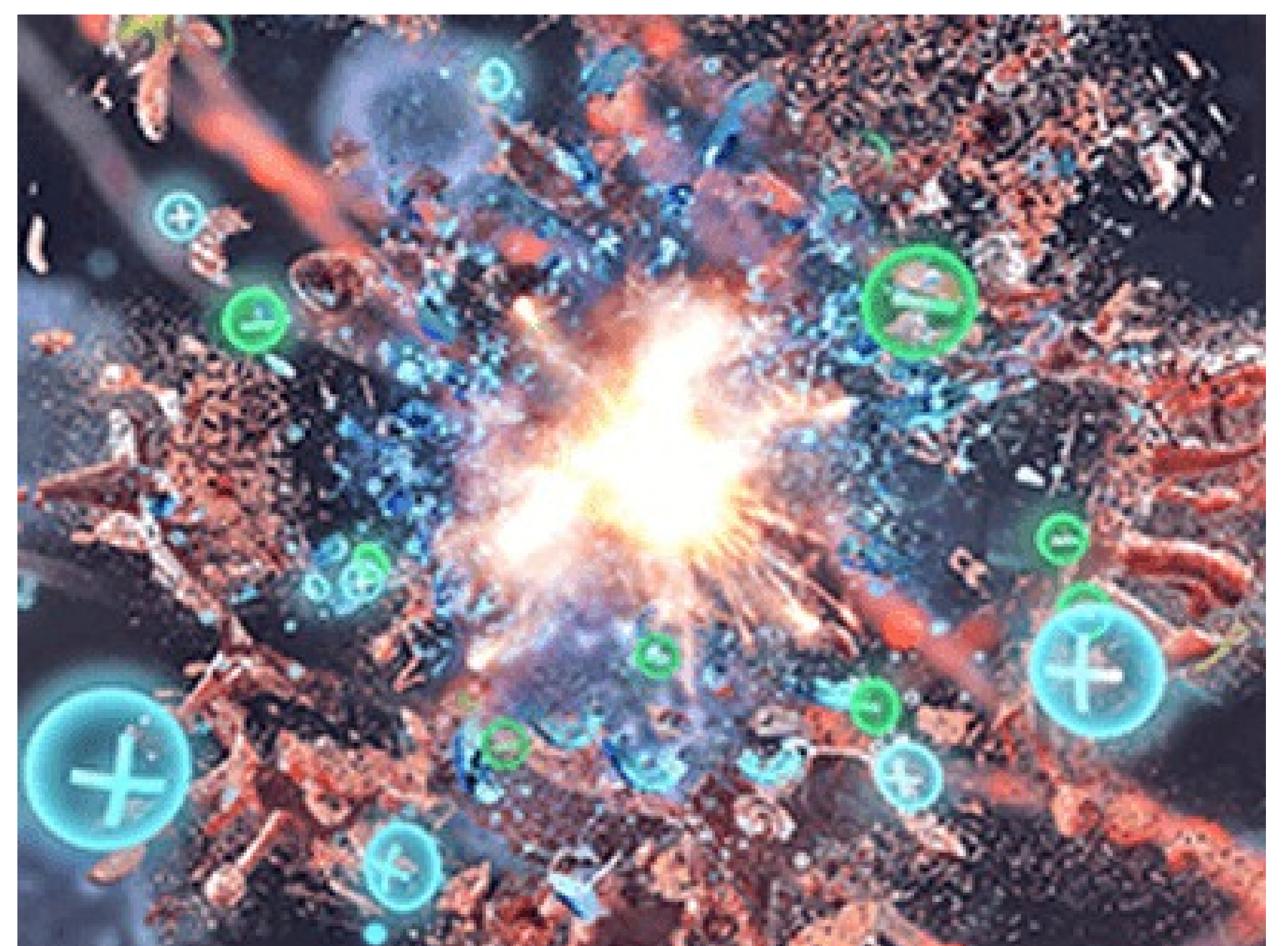
The ion tube generates a significant quantity of both positive and negative ions.



Destroy cell membranes, viruses DNA and protein.



Charged ion clusters actively target and attack viruses and bacteria.



They lose activity quickly and be killed.

- Reduction of dust and mold particles occurs as the plasma binds to contaminants, causing them to increase in size and weight. This makes them either fall to the floor or be captured by filters, making it easier to remove them from the air we breathe.
- Eliminate odors. Plasma effectively targets and dismantles odors right at the source, ensuring they are completely removed.
- Manage chemical and VOC gases by breaking down toxic compounds from harmful chemicals found in cleaning products, pesticides, paint, solvents, mold, and more through plasma technology.
- Eliminate bacteria and viruses. Bipolar ions disrupt the DNA of these pathogens, helping to protect people from diseases and epidemics.
- Low maintenance costs. With no filters to replace or collectors to clean, the only upkeep required is replacing the plasma tubes every two - five years.



Compared With The Reactive Air Purification Methods

Laboratory tests have demonstrated that bipolar ion systems are highly effective at reducing pollutants. Unlike passive technologies that require pollutants to be brought to the device, bipolar ions actively fill the space, targeting and neutralizing contaminants at their source for greater efficiency.

Air Purifier Info

TRICLEANAIR'S PLASMA AIR PURIFICATION SYSTEMS



Refer to the chart below for a comparison of Clean Air Delivery Rate (CADR) testing results.

Technology	CADR Rate
Bipolar Ionization	125
Lennox Photo Catalytic Oxidation	47.4
Honeywell Electronic Air Cleaner	35.8
Emerson Polarized Media Filter	27.2
Sharper Image Ionic Breeze	4.8
GPS Needlepoint Ionizer	1.3
Activetek PCO	-3.9

Source: Intertek ETL
Testing was performed to standard ASNI/AHAM AC-1-2002. Testing rated relative performance on .3 micron particles in a standard 10"x10'x10' chamber

	TriCleanAir DBD BPI	NeedlePoint Ionization
Reduces VOCS	Yes	Yes
Reduces Particles	Yes	Yes
Effective on Bacteria and Virus	Yes	Yes
Doesn't Produce Ozone	Yes	Yes
Smart IoT Capable System	Yes	No
Low Static Pressure Drop	Yes	Yes
Maintenance	Every 2 Years	Every 5 Days
No Re-Engineering of HVAC System Required	Yes	Yes
New Design and Retro t	Yes	Yes
Reduces Energy Costs	Yes	Yes
No Chemicals or Byproducts	Yes	Yes
Tested Contaminant Reductions in Occupied Space	Yes	No

HELPING YOU FIND THE BEST INDOOR AIR QUALITY SOLUTION

TriCleanAir offers a wide range of air quality solutions tailored for agriculture industries. Our product lineup includes In-Duct Air Purifiers, and wall-mounted options, ensuring we have the right solution for your specific needs. Explore our innovative air purification systems designed for effective performance. Visit TriCleanAir.com today to find the perfect solution for improving your air quality.

If you're interested in our products, don't hesitate to reach out.

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