

Independent Testing

NPBI™ Technology Neutralises SARS-CoV-2



NPBI™ Purification: Air & Surface Sterilisation System

Innovative Bioanalysis - Healthcare & Clinical Research Laboratory

Innovative Bioanalysis is a CAP, CLIA, and AABB-certified reference laboratory providing laboratory services to the healthcare and clinical research industries.

Test Scenario

In the laboratory study, Innovative Bioanalysis designed a test to mimic ionisation conditions such as those in a commercial aircraft's fuselage using Global Plasma Solutions NPBI™ technology to mitigate contaminants.

The goal was to increase the efficiency of the HEPA filters already being used in aircraft's to protect against SARS-CoV-2, which can be small enough to pass through HEPA filters when attached to particles less than 3 microns (3µ) in size.

Results

Based on viral titrations, it was determined that at 10 minutes, 84.2% of the virus was inactivated, at 15 minutes, 92.6% of the virus was inactivated and at 30 minutes, 99.4% of the virus was inactivated.

GPS NPBI™ technology has also been rigorously tested to meet additional Aviation standards, including the RTCA/DO-160 standard for zero EMF, line noise and avionics interference, as well as being the only purification system to receive the UL 2998 Ozone Free Certification.

Outcome

NPBI™ technology is now approved and available on all aircraft manufacturer platforms, makes and models.

- 99.4% Inactivation of SARS-CoV-2
- Airborne & surface sterilisation
- Neutralises jet fuel & aviation related VOCs
- Continuous ongoing protection
- Improves existing HEPA filter efficiency
- Unpleasant passenger & cabin odours neutralised

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**PURE
AIR⁺**

What is the PureAir⁺ NPBI Series

The Airius PureAir⁺ Series is an air and surface purification and airflow circulation fan system, designed to deliver the highest level of pathogen, particle and odour elimination in any type of indoor commercial or community environment.

Featuring the latest in Needlepoint BiPolar Ionisation (NPBI™) technology from one of the world's leading manufacturers of indoor air quality systems - Global Plasma Solutions, the PureAir⁺ Series uses the power of ions to provide continuous round-the-clock sterilisation, neutralising up to 99%+ of all known pathogens, VOCs and odours, in both the air and on surfaces.

The PureAir⁺ also provides all the features and benefits of the world's most popular destratification and airflow circulation fan, balancing temperatures, improving comfort, reducing heating and cooling costs and cutting carbon emissions.

How does it work?

The PureAir⁺ Series integrated GPS NPBI™ system emits a high concentration of positive (+) and negative (-) ions, which are circulated into spaces via the fan.

The polarity of the ions attracts them to all particles within the space, causing the particles to cluster together and make them filterable. They also bond with and neutralise pathogens, VOCs and odours by removing them of a hydrogen atom, breaking them down into their basic, harmless and odourless compounds, such as O₂, CO₂, N₂ and H₂O.



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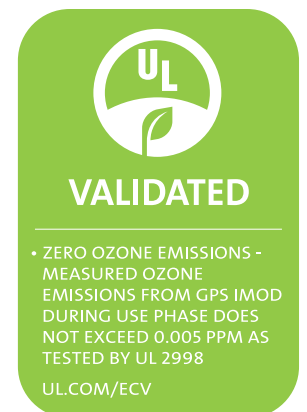


Tested and Approved by Leading Agencies



Multiple studies have been conducted on the NPBI™ technology integrated into the Airius PureAir+ Series range, supporting the efficacy and effectiveness of NPBI™ systems for pathogen neutralisation, particle reduction and odour elimination.

- Installed through out all industries, including Healthcare, Aviation, Manufacturing, Offices, Education, Arenas, Retail outlets and many more.
- Approved by the RTCA to meet the DO-160 standard for Airborne Equipment
- One of the first purification systems to be tested on a live strain of SARS-CoV-2
- Testing carried out by:
 - Innovative Bioanalysis
 - Harvard School of Public Health
 - Retroscreen Virology
 - Kitasato Institute Medical Centre
 - EMSL Analytical Inc
 - Green Clean Air
 - Calgary Int. Airport, NAV Canada
 - Aachen University of Applied Sciences
 - Medical School of Luebeck
 - Shanghai Municipal Center for Disease Control
 - School of Advanced Sciences, Hiroshima University



Contact Airius

Airius fans are commonly used to purify air and balance temperatures for both heating and cooling applications in a wide variety of environments – from offices to aircraft hangars.

Adding an Airius PureAir+ Series air purification, infection and odour control ventilation fan is a simple way to continually clean your air and surfaces, creating a safer and healthier environment for you, your staff and your building.

Contact Airius to learn more >>