Panasonic

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Inhibitory effect on the novel coronavirus (SARS-CoV-2) confirmed through testing of Panasonic's air conditioners with nanoe™X technology

January 21, 2021.

Panasonic Corporation ("Panasonic") announced on January 14, 2021, that the inhibitory effect on the novel coronavirus (SARS-CoV-2) of a representative Panasonic air conditioner equipped with nanoe™ X*[1] was verified by Texcell*[2], a global contract research organization. Texcell confirmed an inhibitory effect of 91.4% on the novel coronavirus after eight hours in a 6.7m3 area.

nanoe™ X is a technology that collects invisible moisture in the air and applies a high voltage to it to produce hydroxyl radicals contained in water. Hydroxyl radicals inhibit the growth of pollutants such as bacteria and viruses. They are characterized by being strongly oxidative and highly reactive, hence a short life span. Contained in tiny water particles, nanoe™ X has a long lifespan and can spread over long distances. It has an inhibitory effect on both airborne and adhered substances.

In September 2020, Panasonic verified, in collaboration with Texcell*[2] , the inhibitory effect of nanoe™ X technology with the benefits of hydroxyl radicals on the novel coronavirus in a small test space of 45L using a nanoe™ X generator. For further investigation, Panasonic conducted additional tests using a Panasonic air conditioner equipped with nanoe™ X technology in a larger test space. In these circumstances, Texcell confirmed that nanoe™ X had a 91.4% inhibitory effect on the novel coronavirus in a space of 6.7m3 in eight hours using an air conditioner with nanoe™ X. **This testing was carried out in a closed laboratory environment and was not designed to assess efficacy in uncontrolled living spaces.**

Panasonic has been researching nanoe™ technology since 1997. Over the past 20 years, Panasonic has verified its effectiveness in a variety of areas, including inhibiting pathogenic microorganisms (bacteria, fungi, and viruses) and allergens, and breaking down PM 2.5 components that have adverse effects on the human body*[2].

Panasonic plans to continue to pursue the potential of nanoe™ X technology to address possible risks associated with air pollution such as new pathogenic microorganisms, to create healthy environments for people around the world.

VIDEO: Explanation of Covid and nanoeX inhibitor

VIDEO: CES 2021 | Tech Talk

For reference:

Testing the inhibitory effect of an air conditioner with nanoe™ X on the novel coronavirus (SARS-CoV-2) in a space of 6.7m3.

Overview

A comparative verification was conducted in a space of 6.7m3 containing the novel coronavirus. (SARS-CoV-2)

Results

Over 91% of novel coronavirus (SARS-CoV-2) activity was inhibited within 8 hours.
Note: This verification was designed to generate basic research data on the effects of nanoe™ X on the novel coronavirus in laboratory conditions different from those found in living spaces.

Methodology and data

- Organization：Texcell
- (France) Subject：Novel coronavirus (SARS-CoV-2）
- Device：Panasonic Air conditioner with nanoe™ X

Method：

- A Panasonic Air Conditioner with nanoe™ X was installed in a space of 6.7m3.
- Gauze saturated with the SARS-CoV-2 virus solution was exposed to a Panasonic Air Conditioner with nanoe™ X from a distance of 0.7m in a 6.7m3 room for 24 hours.
- The virus infectious titre was measured and used to calculate the inhibition rate.

Test results

Test subject	Inhibition rate	Capacity	Hours
SARS-CoV-2	42.4%	6.7 m3	4 hours
SARS-CoV-2	91.4%	6.7 m3	8 hours
SARS-CoV-2	99.7%	6.7m3	24 hours

See Notes

About Panasonic Corporation of North America

Newark, NJ-based Panasonic Corporation of North America is committed to creating a better life and a better world by enabling its business-to-business customers through innovations in Sustainable Energy, Immersive Entertainment, Integrated Supply Chains and Mobility Solutions. The company is the principal North American subsidiary of Osaka, Japan-based Panasonic Corporation. One of Interbrand's Top 100 Best Global Brands of 2020, Panasonic is a leading technology partner and integrator to businesses, government agencies and consumers across the region. Learn more about Panasonic's ideas and innovations at na.panasonic.com/us.

Notes:

*1: The following Panasonic ClimaPure™ models in North America are equipped with nanoe™ X:

CSXE12WKUAW/CUXE12WKUA, CSXE15WKUAW/ CUXE15WKUA, CSXE18WKUAW/ CUXE18WKUA, CSXE24WKUAW/ CUXE24WKUA, CSXE9WKUAW/ CUXE9WKUA. At this time, Panasonic is not making a product claim specific to these air conditioners' effect upon the novel coronavirus in the market. Rather, Panasonic is reporting upon the latest round of testing; which testing involved an air conditioning product rather than a nanoe X™ generator but in theory could have employed any of the Panasonic products that incorporate nanoe X™ technology, including air purifiers, washing machines, refrigerators, and automobile accessories.

*2: Texcell is a global contract research organization that specialises in viral testings, viral clearance, immunoprofiling and R&D or GMP cell banking, for your R&D, GClP, GLP and GMP projects. With more than 30 years of experience and roots within the Pasteur Institute in Paris, Texcell has a long-recognized expertise in viral testing with a broad range of protocols for the detection of adventitious agents. Texcell is the first spin-off of the Pasteur institute of Paris created in 1997.

*3: Main releases on verification cases

- - May 12, 2009：Positive effects of charged water particles on viruses, bacteria and agricultural chemicals were verified.
- - October 20, 2009： The new influenza virus inhibition effect of charged water particles was verified.
- - February 20, 2012：Suppression effect of charged water particles on pet-related allergens, bacteria, fungi, and viruses was verified.
- - January 16, 2014：Nano-sized electrostatic atomised water particles effectively broke down PM2.5 components and inhibited growth of fungi attached to Yellow Sand.