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The inhibitory effect on the novel coronavirus (SARS-CoV-2) confirmed by the Panasonic's air conditioner with nanoe™ X

Panasonic Malaysia today announced that the inhibitory effect on the novel coronavirus (SARS-CoV-2) of the air conditioner with nanoe™ X was certified by Texcell*¹, a global contract research organisation. Texcell verified 91.4% of the inhibitory effect on the novel coronavirus in the space of 6.7m³ in 8 hours.

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 characterised 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 has verified in collaboration with Texcell*¹ the inhibitory effect of the nanoe™ X technology with the benefits of hydroxyl radicals on the novel coronavirus in a small test space of 45L using nanoe™ X generator. For further investigation, Panasonic challenged the test using an air conditioner with nanoe™ X in a larger test space. Even in these difficult circumstances, Texcell has now certified that the nanoe™ X does have 91.4% of the inhibitory effect on the novel coronavirus in the actual space of 6.7m³ in 8 hours using the air conditioner with nanoe™ X. This testing was carried out in a closed laboratory environment and was not designed to assess its efficacy in uncontrolled living spaces.

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

Panasonic will 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.

For reference:

Testing the inhibitory effect of 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**

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

Method :

- ✧ The air conditioner with nanoe™ X is installed in a space of 6.7m³.
- ✧ Gauze saturated with SARS-CoV-2 virus solution was exposed to an 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 result**

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

Notes:

*1: Texcell is a global contract research organisation that specialises in viral testings, viral clearance, immunoprofiling and R&D or GMP cell banking, for your R&D, GCIP, 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.

*2: Main releases on verification cases

- May 12, 2009 : Positive effects of charged water particles on viruses, bacteria, and agricultural chemicals have been verified.

- October 20, 2009 : The new influenza virus inhibition effect of charged water particles has been verified.

- February 20, 2012 : Suppression effect of charged water particles on pet-related allergens, bacteria, fungi, and viruses have been verified.

- January 16, 2014 : Nano-sized electrostatic atomised water particles effectively break down PM2.5 components and inhibits growth of fungi attached to Yellow Sand.

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About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 528 subsidiaries and 72 associated companies worldwide, recording consolidated net sales of 7.49 trillion yen for the year ended March 31, 2020. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: <https://www.panasonic.com/global>.

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