

Panasonic Introduces nanoe™ X technology for the Philippine Market

The effect of nanoe™ X technology with the benefits of hydroxyl radicals on novel coronavirus (SARS-CoV-2)

October 26, 2020, Manila, Philippines--Panasonic Manufacturing Philippines Corporation (PMPC), the manufacturer, importer, and distributor of Panasonic products in the country announced today that, in collaboration with a global contract research organization Texcell*¹, Texcell has verified the inhibitory effect of the nanoe™ X technology with the benefits of hydroxyl radicals on the novel coronavirus (SARS-CoV-2).

Introduction

With the joint efforts of the government and the Filipino people, the Covid-19 pandemic seems to still pose a threat to our health. To prevent the spread of the virus, community safety guidelines and protocols are imposed nationwide especially in locations where the numbers suggest an increase in cases recorded in the Philippines. While we treat homes as the safest place we can be in during these challenging times, now more than ever is the time we should pay closer attention to the air quality in our residences.

About the nanoe™ X technology

nanoe™ X technology, the original ionizer to generate “nano-sized atomized water particles” was developed by Panasonic Corporation. It is an electrostatic atomization technology, that collects invisible moisture in the air and applies high voltage to it to produce “hydroxyl radicals contained in water”. The decisive factor is the existence of hydroxyl radicals inside nanoe™ X. Hydroxyl radicals are characterized by being strongly oxidative and highly reactive.

Panasonic has been conducting research on this technology for over 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.

In 2012, Panasonic conducted a virus clearance test with a third-party organization and confirmed the effectiveness of each of the 4 categories in terms of biological characteristics. Based on this result, Panasonic announced that "hydroxyl radicals contained in water" technology could be expected to have an inhibitory effect on new viruses*³.

The novel coronavirus (SARS-CoV-2) of the current global pandemic is one such new type of virus and testing with Texcell has now confirmed that the nanoe™ X does have an inhibitory effect on this virus. This testing was carried out in a closed laboratory environment and was not designed to assess its efficacy in uncontrolled living spaces.

Understanding nanoe™ X and hydroxyl radicals contained in water

Generally, hydroxyl radicals in the air have a short life span and have difficulty in generating huge quantity of hydroxyl radicals while controlling ozone generation. Panasonic utilizes a unique technology that generates hydroxyl radicals contained in water that encompasses charged water particles to give it a longer life span, and that technology produces huge quantity of hydroxyl radicals while controlling ozone generation, making it safe and effective in inhibiting new viruses.

Hydroxyl radicals contained in water have a longer life span which enhances its ability to attach onto viruses, taking away hydrogen (H) from proteins that neutralizes viruses. In fact, Texcell test report has verified nanoe™ X device used in an enclosed 45litre enclosed box effectively inhibit novel coronavirus (SARS-CoV-2) in 2 hours.

Panasonic air conditioners and other Panasonic appliances equipped with nanoe™ X contain about 4.8 trillion per second hydroxyl radicals. Thanks to the huge quantity of hydroxyl radicals contained in water, nanoe™ X can inhibit surface-level pollutants by penetrating deep into fabric materials and inhibiting pathogenic microorganism such as bacteria & viruses, mould, allergen, pollen, and hazardous substances.

It is true that prevention is better than cure and taking care of one's health begins at home. The new technology offered by Panasonic is a testament to how they stay true to offering new value for better living and help realise "A Better Life, A Better World" for each of their customers. This will provide Filipino families an option to be able to make sure that their homes are indeed a safe haven for them, lessening the harms of being infected by the rapidly spreading coronavirus. Aside from our homes, business establishments including restaurants, hospitals, offices, gyms, schools and more are best to utilise this technology since Panasonic air conditioners equipped with the nanoe™ X, are capable of providing 24-hour air protection.

Health is the utmost priority of every individual given the current global pandemic and with the help of companies who are working hand-in-hand to look after the welfare of every global citizen, the plight of the community in preventing the numbers of cases from growing is somehow lessened and mitigated.

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

For reference :

Testing of inhibitory effect of nanoe™ X on the novel coronavirus (SARS-CoV-2)

- **Overview**

A comparative verification was conducted in a 45L test space containing the novel coronavirus (SARS-CoV-2) with and without exposure to nanoe™ X

- **Results**

Over 99.99% of novel coronavirus (SARS-CoV-2) activity was inhibited within 2 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. It was not designed to evaluate product performance.

- **Methodology and data**

Organisation : Texcell

Subject : Novel coronavirus (SARS-CoV-2)

Device. : nanoe™ X device

Method :

- nanoe™ X device is installed at 15cm from the floor in the 45L test space.
- A piece of gauze saturated SARS-CoV-2 virus solution was placed in a petri dish and exposed to nanoe™ X for a predetermined time.
- The virus infectious titer was measured and used to calculate the inhibition rate.

- **Results data**

Test subject	Inhibition rate*	Capacity	Hours
SARS-CoV-2	99.99%	45L	2 hours

Notes:

*1: Texcell is a global contract research organization that specializes 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 atomized water particles effectively breaks down PM2.5 components and inhibits growth of fungi attached to Yellow Sand.

*3: January 26, 2012: Virus suppression effect of charged water particles has been verified by the virus clearance test. Co-verified with Charles River Biopharmaceutical Services GmbH, a German testing organization.

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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>.

About Panasonic Air-Conditioning Philippines

Panasonic Air-Conditioning Philippines is the air-conditioner business sales division responsible for product marketing of Panasonic air conditioners in the Philippines.

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About Panasonic Philippines

Panasonic Philippines is a consumer sales division of Panasonic Manufacturing Philippines Corporation responsible for the sales and marketing of the Panasonic brand of consumer electronics and home appliances in the Philippines. For more information on Panasonic Philippines and its products, visit our website at www.panasonic.com/ph.

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APPENDICES:

Panasonic Elite Inverter Sky Series Aircon

CS/CU-VU9UKQ (1.0HP), CS/CU-VU12UKQ (1.5HP), CS/CU-VU18UKQ (2.0HP)



<https://www.panasonic.com/ph/consumer/air-conditioners/split-type-airconditioner/sky-series-model.html>

nanoe™ X Features	nanoe™ X Applications
<p>Inhibits Bacteria and Viruses (airborne/adhered) Inhibits the growth of bacteria and viruses adhering to surfaces. Also effective in inhibiting mould, allergens, pollen and hazardous substances.</p> <p>Deodorisation Deodorises unpleasant smells such as cigarette smoke, perspiration & damp towels</p> <p>Moisturises Skin & Hair Stay refreshed by providing moisture balance resulting to smooth, hydrated skin and hair</p>	<p>24 Hour Quality Air nanoe™ X can purify air for 24 Hours with cooling on & off (with or without running compressor).</p> <p>Sleep with Clean Air Sleep well in a room that is free from harmful pollutants in the air.</p>

Panasonic Premium Inverter Aero Series Aircon

CS/CU-XU9VKQ (1.0HP), CS/CU-XU12VKQ (1.5HP), CS/CU-XU18VKQ (2.0HP), CS/CU-XU24VKQ (2.5HP), CS/CU-XU30VKQ (3.0HP)



<https://www.panasonic.com/ph/consumer/air-conditioners/split-type-airconditioner/aero-series-premium-inverter.html>

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<p>Inhibits Bacteria and Viruses (airborne/adhered) Inhibits the growth of bacteria and viruses adhering to surfaces. Also effective in inhibiting mould, allergens, pollen and hazardous substances.</p> <p>Deodorisation Deodorises unpleasant smells such as cigarette smoke, perspiration & damp towels</p> <p>Moisturises Skin & Hair Stay refreshed by providing moisture balance resulting to smooth, hydrated skin and hair</p>	<p>24 Hour Quality Air nanoe™ X can purify air for 24 Hours with cooling on & off (with or without running compressor).</p> <p>Sleep with Clean Air Sleep well in a room that is free from harmful pollutants in the air.</p>

Panasonic Deluxe Inverter Aero Series Aircon

CS/CU-XPU9WKQ (1.0HP), CS/CU-XPU12WKQ (1.5HP), CS/CU-XPU18WKQ (2.0HP)



<https://www.panasonic.com/ph/consumer/air-conditioners/split-type-airconditioner/aero-series-deluxe-inverter.html>

nanoe™ X Features	nanoe™ X Applications
<p>Inhibits Bacteria and Viruses (airborne/adhered) Inhibits the growth of bacteria and viruses adhering to surfaces. Also effective in inhibiting mould, allergens, pollen and hazardous substances.</p> <p>Deodorisation Deodorises unpleasant smells such as cigarette smoke, perspiration & damp towels</p> <p>Moisturises Skin & Hair Stay refreshed by providing moisture balance resulting to smooth, hydrated skin and hair</p>	<p>24 Hour Quality Air nanoe™ X can purify air for 24 Hours with cooling on & off (with or without running compressor).</p> <p>Sleep with Clean Air Sleep well in a room that is free from harmful pollutants in the air.</p>

Ceiling Cassette Packaged Air Conditioner

S/U-18PU2Q6 (2.0HP), S/U-21PU2Q6 (2.5HP), S/U-24PU2Q6 (3.0HP), S/U-30PU2Q6 (3.5HP), S/U-34PU2Q6 (4.0HP), S/U-43PU2Q6 (5.0HP), S/U-48PU2Q6 (6.0HP)



<https://aircon.panasonic.com/business/lineup/pac.html>

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Ceiling Cassette VRF-FSV System Indoor

S-22MU2E5A, S-28MU2E5A, S-36MU2E5A, S-45MU2E5A, S-56MU2E5A, S-60MU2E5A, S-73MU2E5A, S-90MU2E5A, S-106MU2E5A, S-140MU2E5A, S-160MU2E5A (should come with CZ-CNEXU1 nanoE™ X adaptor, CZ-KPU3H panel, CZ-RTC5B wired remote or CZ-RWSU3+CZ-RWRU3 wireless remote control)




<https://aircon.panasonic.com/business/lineup/vrf.html>

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<p>Inhibits Bacteria and Viruses (airborne/adhered) Inhibits the growth of bacteria and viruses adhering to surfaces. Also effective in inhibiting mould, allergens, pollen and hazardous substances.</p> <p>Deodorisation Deodorises unpleasant smells such as cigarette smoke, perspiration & damp towels</p> <p>Moisturises Skin & Hair Stay refreshed by providing moisture balance resulting to smooth, hydrated skin and hair</p>	<p>24 Hour Quality Air nanoE™ X can purify air for 24 Hours with cooling on & off (with or without running compressor).</p> <p>Sleep with Clean Air Sleep well in a room that is free from harmful pollutants in the air.</p>

Panasonic Portable nanoE™ Generator*

F-GPT01A-K, F-GPT01A-R

**Available on November 2020*

	
nanoe™ X Features	nanoe™ X Applications
<p>Inhibits Bacteria and Viruses (airborne/adhered) Inhibits the growth of bacteria and viruses adhering to surfaces. Also effective in inhibiting mould, allergens, pollen, and hazardous substances.</p> <p>Deodorisation Deodorises unpleasant smells such as cigarette smoke, perspiration, & damp towels.</p>	<p>24 Hour Quality Air nanoe™ X can be used as an independent air purifier that purifies air for 24 Hours.</p> <p>Can Use Anywhere effective in small space such as bathroom or inside a car, inhibits activity of bacteria and viruses and deodorises unpleasant smells.</p>