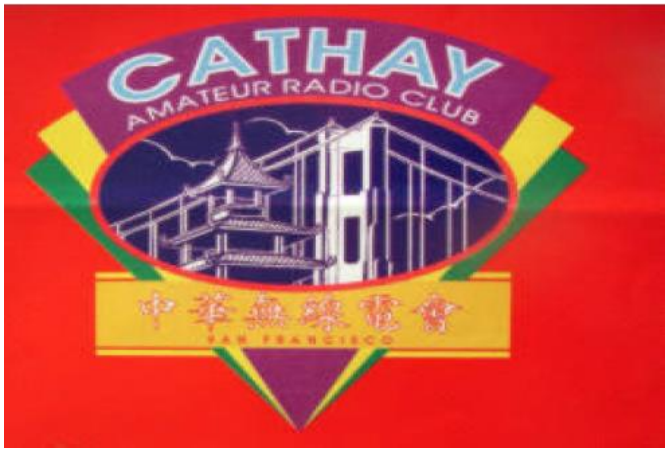


Cathay May 2024

www.cathayradio.org

President: Leonard Tom, *NX6E* **email:**nx6e@hotmail.com
Vice President South: Bill Fong, *W6BBA* - **email:**w6bba@arrl.net
Secretary/Membership: Rodney Yee, *KJ6DZI* - **email:**rodyee2000@yahoo.com
Editor: Rodney Yee, *KJ6DZI* - **email:**rodyee2000@yahoo.com
Treasurer: Vince Chinn aka Mingie, *W6EE* -**email:**vince@vincechinncpa.com
Web Master: Edison Fong – *WB6IQN* - **email:**edison_fong@hotmail.com
Mission: The Cathay Amateur Radio Club is basically an active social club of Ham Radio Operators and their spouses. We support local community requests for HAM emergency communications. Several of us are trained in CPR/ First Aid and are involved with community disaster preparedness.

Monday Night Net Time: 9 PM Local Time/PST, As of 8/21/2023 we are switching over from using Repeater: WB6TCS to **Nick Carsion's Repeater: WA6GEL UHF 444.80000 Mhz, Offset +5Mhz, CTCCS/Tone PL 179.9 Hz on Monument Peak, Milpitas.**

If you cannot reach the fore-mentioned machine, please use WA6GEL UHF 4448.8 Mhz Offset +5Mhz, CTCCS/Tone PL173.8 which is on Mt. San Bruno.

The CARC Monday night net is the best way to find out the latest club news. All check-in are welcome.

Message on Behalf of the CARC President: Leonard Tom *NX6E*

Hello CARC Members and Friends;

No updates yet on services for George Chong, W6BUR.

Many thanks to Nick Cassarino for the use of repeater – WA6GEL for our CARC Monday Night Net.

Additional folks are needed to help out with conducting the CARC radio net on Monday nights. Please contact Ed Fong (edison_fong@hotmail.com) if you are interested.

I wish to thank our CARC members that set aside their valuable time to participate in our Monday night's nets.

Introduction Tech Article:

An innovative idea to control viruses on the surfaces using Nano technology is a very cutting edge.

See Tech Article for further information.

CARC Final News Wrap Up

Chat sub s'em to all you CARC members! - George W6BUR.

Public Service Announcements

HAM CRAM / HAM Licensing

For upcoming HAM Licensing locations please refer to:
http://www.arrl.org/find-an-amateur-radio-license-exam-session

Auxiliary Communications Service (ACS)

The Auxiliary Communications Service (ACS) is a unit of trained professionals who supply communications support to the agencies of the City and County of San Francisco, particularly during major events/incidents. ACS goals are the support of gathering and distribution of information necessary to respond to and recover from a disaster.

The ACS Net begins at 1930 hours (7:30 p.m. PT) local time each Thursday evening, on the WA6GG repeater at 442.050 MHz, positive offset, tone 127.3 Hz. The purpose of this net is to practice Net Control skills, practice checking in with deployment status in a formal net, and to share information regarding upcoming ACS events. Guests are welcome to check in. ACS members perform Net Control duty on a regular basis. On the second Thursday of each month, the net is conducted in simplex mode on the output frequency of the WA6GG repeater, 442.050 MHz no

offset, tone 127.3 Hz.

ACS holds its General Meetings on the third Tuesday of each month from 1900 hours to 2100 hours local time. Currently meetings are exclusively conducted over Zoom during the COVID-19 pandemic, ACS looks forward to meeting in person again as soon as possible.

Upcoming meeting dates in 2024 are:

- May 21, 2024
- June 18, 2024
- July 16, 2024

Location of in person future ACS meetings are yet to be determined as the regular location is under reconstruction. All interested persons are welcome to attend. For further information contact Corey Siegel KJ6LDJ <kj6ldj@gmail.com>.

For more information, please attend an ACS meeting, check in on the ACS radio net, or call 415-558-2717.

Free Disaster Preparedness Classes In San Francisco – NERT Taught by San Francisco Fire Department (SFFD).

https://sf-fire.org/nert/nert-calendar-meetings-trainings-events

Training Classes
TBD

+ Recertifications
TBD

***SFFD DOT** is the Fire Department Division of Training. All participants walking, biking or driving **enter through the driveway gate on 19th St.** between Folsom and Shotwell. Parking is allowed along the back toward the cinderblock wall.

Visit ***www.sfgov.org/sffdnert*** to learn more about the training, other locations, and register on line. Upcoming Special NERT Events.

San Francisco Police Department: Auxiliary Law Enforcement Response Team (ALERT)

The Auxiliary Law Enforcement Response Team (ALERT) is a citizen disaster preparedness program designed. The ALERT program is for volunteers 16 years of age or older, who live, work, or attend high school in San Francisco.

Graduates of the San Francisco Police Activities League (P.A.L) Law Enforcement Cadet Academy are also eligible to join.

ALERT volunteers will no longer need to complete the Fire Department's Neighborhood Emergency Response Team (NERT) (www.sfgov.org/sfnert) training and then graduate into two 8 hour Police Department course specifically designed for ALERT team members.

ALERT members will work closely with full-time and/or Reserve Police Officers in the event they are deployed after a disaster. The Basic ALERT volunteer will have no law enforcement powers other than those available to all citizens.

SFPD ALERT Training (New Members)

The next SFPD ALERT training class has been scheduled for: TBD

*Class date indicated are only for new members

IMPORTANT- All participants must complete the background interview process in order to be eligible to attend the ALERT training class.

Eligible ALERT participants may register fora training class by contacting the ALERT Program Coordinator, marina.chacon@sfgov.org, or by telephone at 415-401-4615.

SFPD ALERT Practice/Training Drill

All active/trained ALERT members are asked to join us for our next training drill, via scheduled for on TBD

For more information on the San Francisco Police Department ALERT Program, email us at sfpdalert@sfgov.org, or call Lt. Marina Chacon (SFPD Ret.), SFPD ALERT Program Coordinator, at (415) 401-4615.

For additional information on the web please refer to:
https://sfgov.org/policecommission/alert

Tech Article:

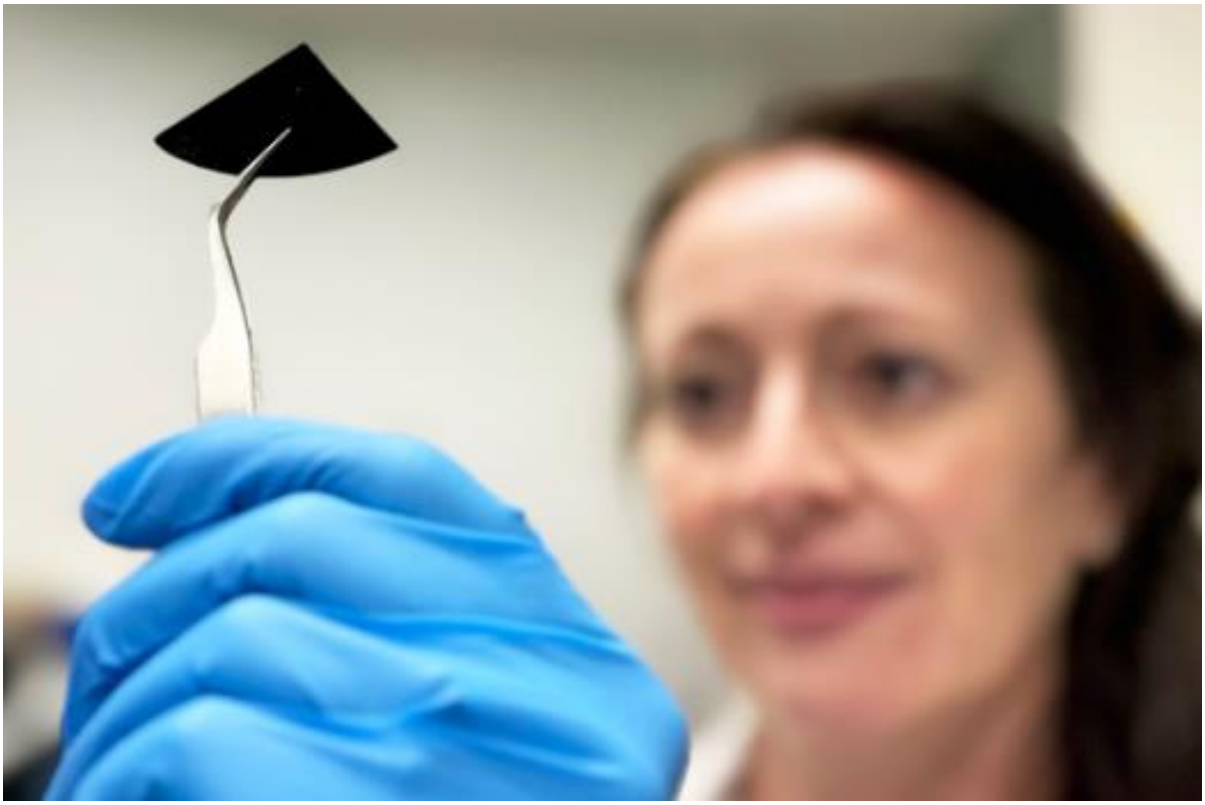
URL: https://www.rmit.edu.au/news/all-news/2024/mar/silicon-nanospikes

An international research team led by RMIT University has designed and manufactured a virus-killing surface that could help control disease spread in hospitals, labs and other high-risk environments.

The surface made of silicon is covered in tiny nanospikes that skewer viruses on contact.

Lab tests with the hPIV-3 virus – which causes bronchitis, pneumonia and croup – showed 96% of the viruses were either ripped apart or damaged to the point where they could no longer replicate to cause infection.

These impressive results, featured on the cover of top nanoscience journal *ACS Nano*, show the material's promise for helping control the transmission of potentially dangerous biological material in laboratories and healthcare environments.



Dr Natalie Borg inspects a sample of the nano spiked silicon sheet.
Credit: RMIT.

Spike the viruses to kill them

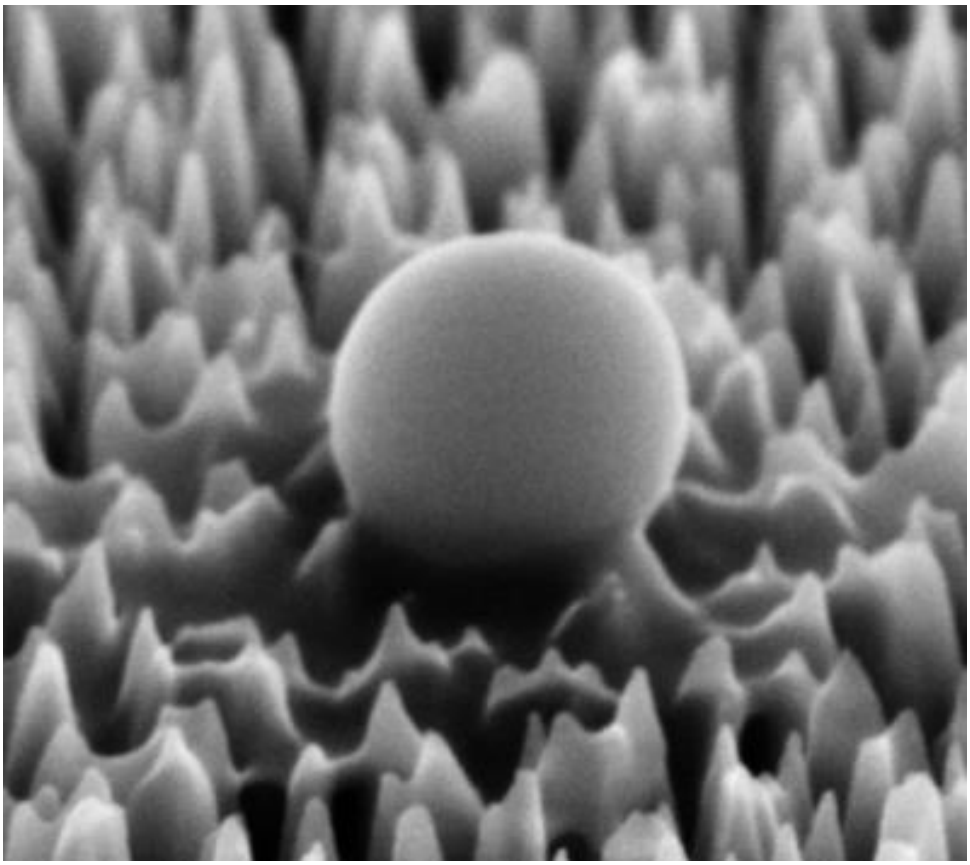
Corresponding author Dr Natalie Borg, from RMIT's School of Health and Biomedical Sciences, said this seemingly unsophisticated concept of skewering the virus required considerable technical expertise.

"Our virus-killing surface looks like a flat black mirror to the naked eye but actually has tiny spikes designed specifically to kill viruses," she said.

"This material can be incorporated into commonly touched devices and surfaces to prevent viral spread and reduce the use of disinfectants."

The nano spiked surfaces were manufactured at the Melbourne Centre for Nanofabrication, starting with a smooth silicon wafer, which is bombarded with ions to strategically remove material.

The result is a surface full of needles that are 2 nanometers thick – 30,000 times thinner than a human hair – and 290 nanometers high.



A virus on the nano spiked silicon surface, magnified 65,000 times. After one hour it has already begun to leak material.

Specialists in antimicrobial surfaces

The team led by RMIT Distinguished Professor Elena Ivanova has years of experience studying mechanical methods for controlling pathogenic microorganisms inspired by the world of nature: the wings of insects such as dragonflies or cicadas have a nanoscale spiked structure that can pierce bacteria and fungi.

In this case, however, viruses are an order of magnitude smaller than bacteria so the needles must be correspondingly smaller if they are to have any effect on them.
The process by which viruses lose their infectious ability when they contact the nanostructured surface was analysed in theoretical and practical terms by the research team.

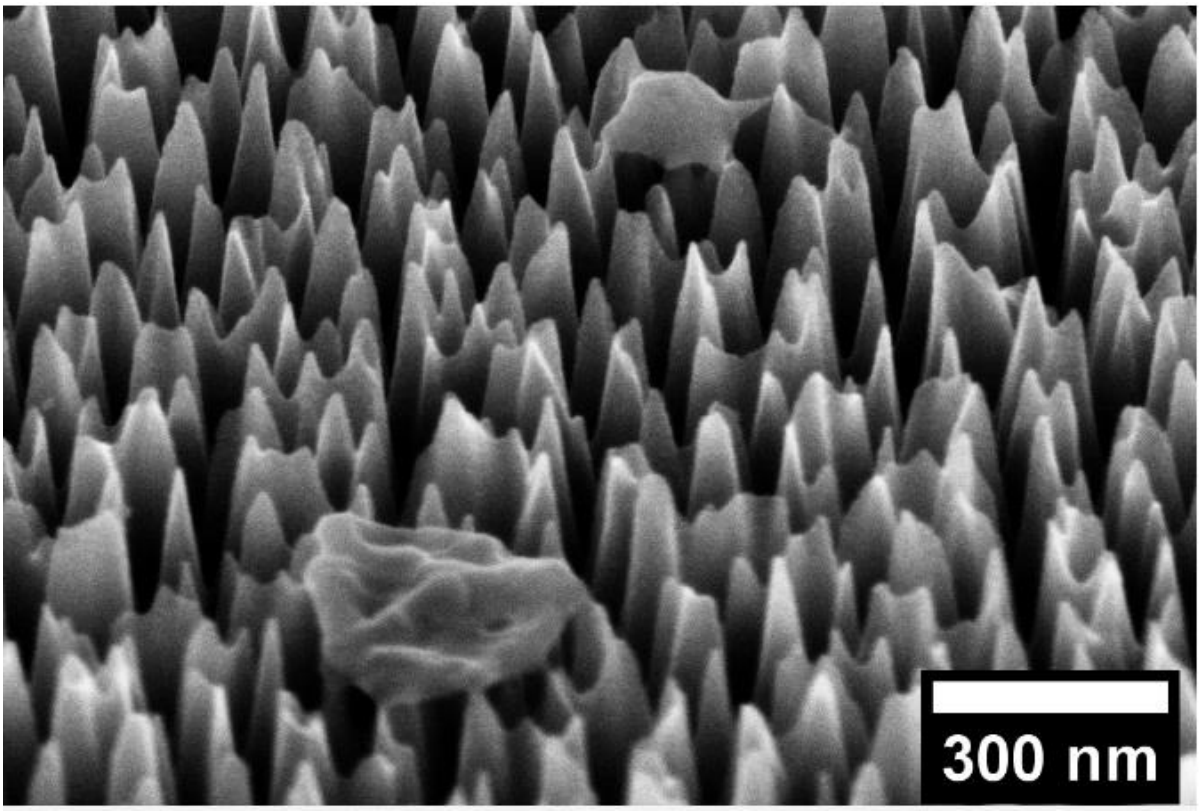
The process by which viruses lose their infectious ability when they contact the nanostructured surface was analysed in theoretical and practical terms by the research team.

Team Ivanova with study corresponding author Professor Elena Ivanova (3rd from left) and study first author Samson Mah (2nd from right). Credit: RMIT.

Researchers at Spain's Universitat Rovira i Virgili (URV), Dr Vladimir Baulin and Dr Vassil Tzanov, computer simulated the interactions between the viruses and the spikes.

RMIT researchers carried out a practical experimental analysis, exposing the virus to the nanostructured surface and observing the results at RMIT's Microscopy and Microanalysis Facility.

The findings show the spike design to be extremely effective at damaging the virus' external structure and piercing its membranes, incapacitating 96% of viruses that came into contact with the surface within six hours.



A virus on the nano spiked silicon surface, magnified 65,000 times. After six hours it has been completely destroyed. Credit: RMIT.

Study first author, Samson Mah, who completed the work under an RMIT-CSIRO Masters by Research Scholarship and has now progressed to working on his PhD research with the team, said he was inspired by the practical potential of the research.

“Implementing this cutting-edge technology in high-risk environments like laboratories or healthcare facilities, where exposure to hazardous biological materials is a concern, could significantly bolster containment measures against infectious diseases,” he said.

“By doing so, we aim to create safer environments for researchers, healthcare professionals, and patients alike.”

The project was a truly interdisciplinary and multi-institutional collaboration carried out over two years, involving researchers from RMIT, URV (Spain), CSIRO, Swinburne University, Monash University and the Kaiteki Institute (Japan).

The RMIT-CSIRO Masters by Research Program allows students to work with CSIRO and RMIT on a range of projects across science, engineering and health disciplines.