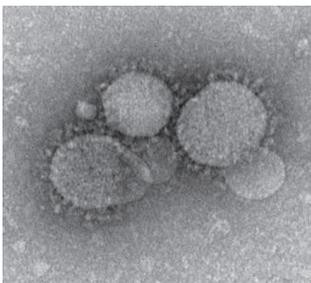


# ReSPR NCC vs SARS-COVID19

ReSPR NCC technology uses nano-technologies and a very specific UV bulb to generate friendly oxidants through an advanced photo-catalytic process. These friendly oxidants have been shown to substantially reduce microbial populations and

## Severe Accute Respiratory Syndrom Corona Virus - explained

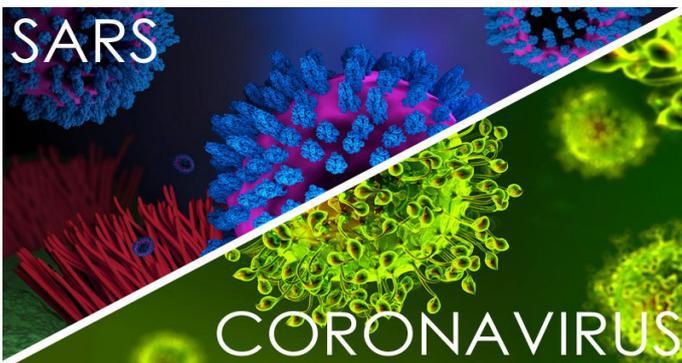
The virus SARS-nCoV2 is a positive and single stranded RNA virus belonging to a family of enveloped coronaviruses. Its genome is about 29.7kb, which is one of the largest among RNA viruses. The SARS virus has 13 known genes and 14 known proteins. SARS-Coronavirus follows the replication strategy typical of the Coronavirus genus.



SARS-nCoV2 particles as seen by negative stain electron microscopy. The morphology of the SARS coronavirus is characteristic of the coronavirus family as a whole. These viruses have large pleomorphic spherical particles with bulbous surface projections that form

a corona around particles.

The internal component of the shell is a single-stranded helical ribonucleoprotein. There are also long surface projections that protrude from the lipid envelope. The size of these particles is in the 80-90 nm range.

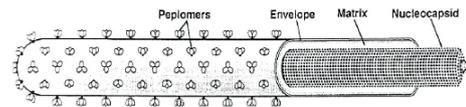


## Infection Prevention - Surface disinfection

The main source of infection is contact with body fluids from infected people or inanimate objects that have been exposed to contaminated body fluid. Therefore there are a number of interventions that are required to help control

transmission, such as protective clothing, isolation, environmental cleaning and disinfection, hand washing etc. All of these processes are required in the event of an isolated infection or outbreak.

As the NCC-rich air reaches interior surfaces, it continues to work, assisting in the maintenance of cleaning programs long after cleaners and disinfectants have evaporated. The same processes go to work inside ducts, on tables and counters, bathroom tiles, doorknobs, and almost every surface you can touch, helping to insure and maintain a more thorough cleaning regimen.



The titers for the ReSPR device showed variable reduction in relation to the control for each exposure time, this ranged between 18.18 % and 93.19% (figure 2).

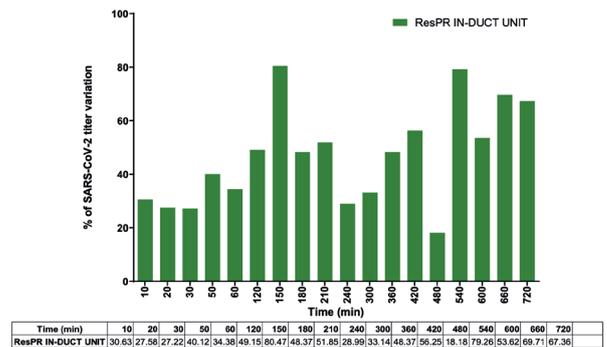


Figure 2. Reduction (%) of SARS-CoV-2 mean titer in relation to control samples of the inoculum collected at 18 time points (from 10 to 720 minutes) from 24mm x 24mm aluminum foil pieces exposed to a ReSPR IN-DUCT device.

ReSPR NCC was tested against SARS nCoV2 and was found to inactivate more than 93% of the exposed viruses. *University of Wisconsin Madison - School of Veterinary Medicine - Sept 2020*