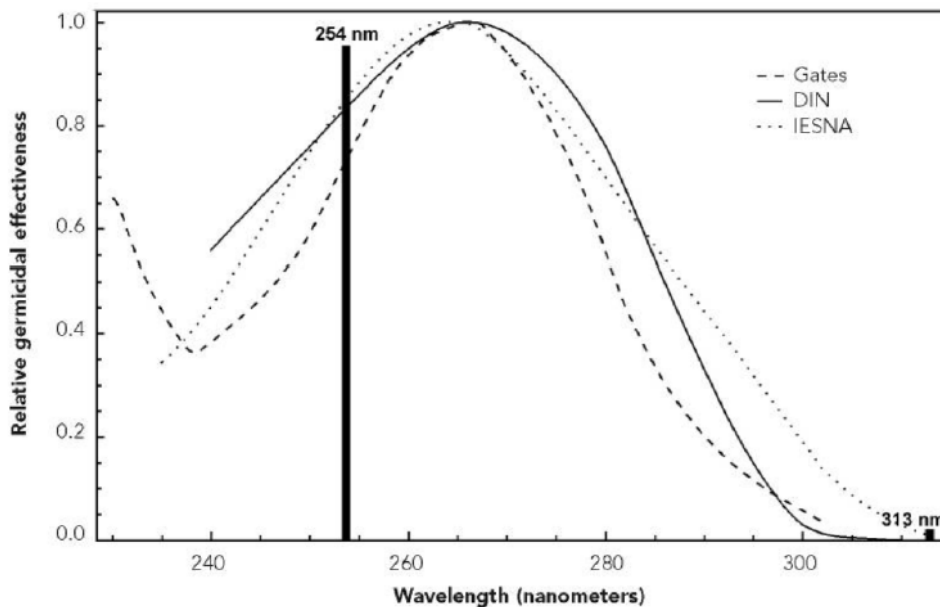


UV-C Sanitization FAQ

Q: What is UV-C light?

A: Ultraviolet Light with a wavelength of 200-280nm

UV light has classified in to three categories: UV-A, UV-B and UV-C. Short wavelength UV, found between 200-280nm, is designated as UV-C. These wavelengths have germicidal properties that destroy the molecular structure of viruses, bacteria, and other contaminants. The germicidal properties are particular potent between 250 and 280nm (Fig A). UV light in this range of wavelength has been proven to kill up to 99.9% of germs, bacteria and viruses.



N. G. Reed, "The History of Ultraviolet Germicidal Irradiation for Air Disinfection", *Public Health Rep.*, 2010 125(1) 15-27

Q: How long has UV-C technology been used for disinfection purposes?

A: Since the 1800's

The disinfection capability of UV-C light was first identified in 1878. In 1903, Niels Finsen was awarded the Nobel Prize in medicine for incorporating the use of UV light in battling tuberculosis. Today, medical centers, labs, and facilities use UV-C sanitizing lights to keep their environments free of contamination.

Q: Is UV-C light safe for humans?

A: Yes, when used according to instructions and under proper precautions.

It is important to handle any UV-C emitting device with caution and care. Make sure the UV light being emitted is directed toward the target object or surface and never toward your face, skin or eyes. Exposure of UV-C light to human skin can cause irritation. Long term exposure can cause skin-damage. Make sure never to look directly at an active UV-C light source.

Q: What is the wavelength range of MTC Bio's line of UV sanitization products?

A: 254nm to 280nm

NuvaClean™ UV Pipette Carousels emit UV light at 254nm, using a low-pressure mercury vapor lamp. BioWand™ Personal UV Sanitizers emit UV light at 260-280nm using ultraviolet LED's.

Q: Have MTC Bio products been tested by independent laboratories?

A: Yes, with more testing on the way.

Our NuvaClean™ UV Pipette Carousel has been tested by an independent laboratory and found to support all claims made in our literature. A copy of the test results are available upon request.

Testing for the BioWand™ Personal UV Sterilizer is currently in the planning stage and results will be available in 2021.

Q: How large is the area disinfected by the BioWand?

A: About 5 x 7 inches

When held 2 inches from the target surface, the LED light source of the BioWand will cover an area that is approximately 12 x17 cm or 5 x7 inches.

Q: Why do your products have a timer function?

A: For your safety

MTC Bio UV based products include timer functions to prevent accidental damage to skin, eyes, or other items.

Q: Is UV-C light effective at killing the virus that causes COVID-19?

A: It is likely, but unproven that UV-C light is effective against SARS CoV-2.

UV-C exposure has been repeatedly proven efficient at killing many virus types, including influenzas, SARS, and other coronaviruses. Scientists agree that it should be similarly effective on the latest SARS CoV-2, the virus responsible for the COVID-19 pandemic. Currently, there is insufficient peer-reviewed data to definitively prove this hypothesis, but UV-C is widely used in hospitals and research labs and broadly regarded as effective against all viruses and bacteria.

Q: Where has UV-C light been used in the battle against COVID-19

A: UV-C disinfection is being used in a variety of places

- Banks are using UV-C to disinfect money
- UV-C light is being used to disinfect buses and other public transportation vehicles
- Hospitals use roaming UV-C robots to disinfect entire operating rooms

Q: What can I use my UV-C emitting device on?

A: The applications are endless!

Use UV-C light to disinfect any object, apparatus or surface that you fear may harbor germs, viruses or bacteria, this includes labware, dissection tools, protective eyewear, and countless others. For best results, sanitize for 10 seconds, with the light source about 2 inches away from the target area. UV-C light is only effective on surfaces it makes direct contact with, make sure to expose all sides of an object for optimal sanitization.