



TOYODA GOSEI

News Release

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Toyoda Gosei Co., Ltd.

Contact: Masayuki Uchida
inquiry@mail.toyoda-gosei.co.jp

Toyoda Gosei Develops Deep UV LED Light Module for Sterilization

Kiyosu, Japan, July 22, 2020: Toyoda Gosei Co., Ltd. has developed a deep UV LED light module for use in the sterilization of water, air, and surfaces. These new modules take advantage of the technology that the company has accumulated over 30 years in the development and production of blue LEDs.

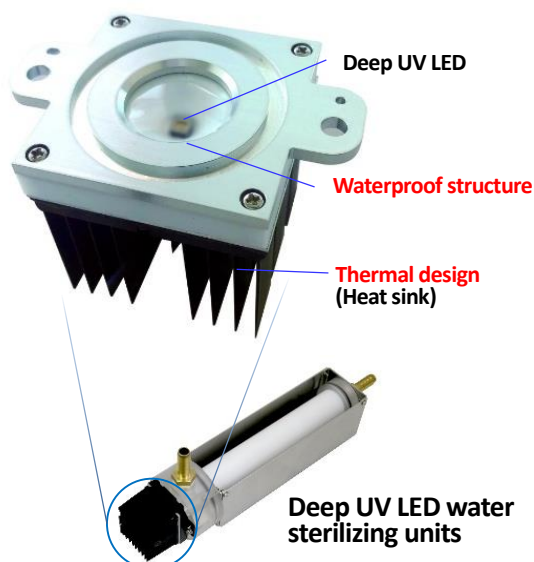
Deep UV LEDs emit short wavelength ultraviolet light that can destroy the genetic materials of viruses and bacteria. They are promising as a new sterilizing light source that can be used in place of mercury lamps, for which there is environmental concern.

With the aim of spreading applications of this technology, Toyoda Gosei has been developing products in modules or units with waterproof or heat dissipation features. In a joint experiment conducted with the Biomedical Science Association* using human coronavirus 229E (HCoV-229E), which has genetic materials similar to those of the virus that causes Covid-19 (SARS-CoV2), these modules were demonstrated to be highly effective in sterilization.

Toyoda Gosei is cooperating with the Toyota Group and other companies to develop applications for water, air and surface sterilization that contribute to safer and healthier living. The company will continue to contribute to the creation of a sustainable society through the core technologies it has cultivated.

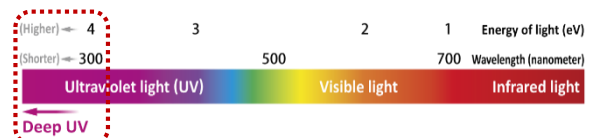
*Certified NPO in Japan made up of specialists from national research institutes and universities in the fields of medicine, pharmaceuticals, veterinary medicine, agriculture and more

Deep UV LED light modules

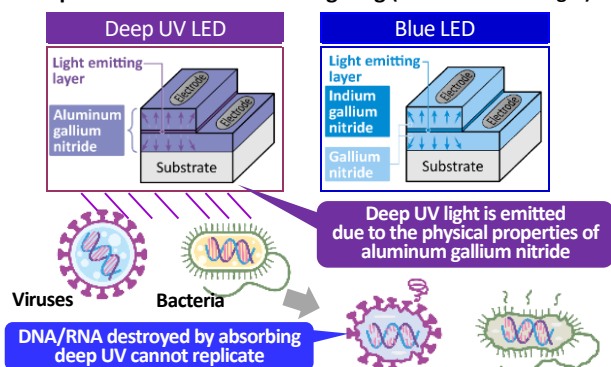


What is a deep UV LED?

- An LED that emits short-wavelength (high energy) deep ultraviolet light
- It can kill viruses and bacteria by destroying their genetic materials



Comparison with a blue LED for lighting (Cross-sectional images)



Potential fields of application

