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समाचार पत्रों से चयित अंश Newspapers Clippings

A Daily service to keep DRDO Fraternity abreast with DRDO Technologies, Defence Technologies, Defence Policies, International Relations and Science & Technology

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Press Information Bureau
Government of India

Ministry of Defence

Mon, 04 MAY 2020 05:13 PM

DRDO develops UV Disinfection Tower

Defence Research and Development Organisation (DRDO) has developed an Ultra Violet (UV) Disinfection Tower for rapid and chemical free disinfection of high infection prone areas.

The equipment named UV blaster is a UV based area sanitiser designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi based premier laboratory of DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram.

The UV Blaster is useful for high tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods. The product is also effective for areas with large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc.

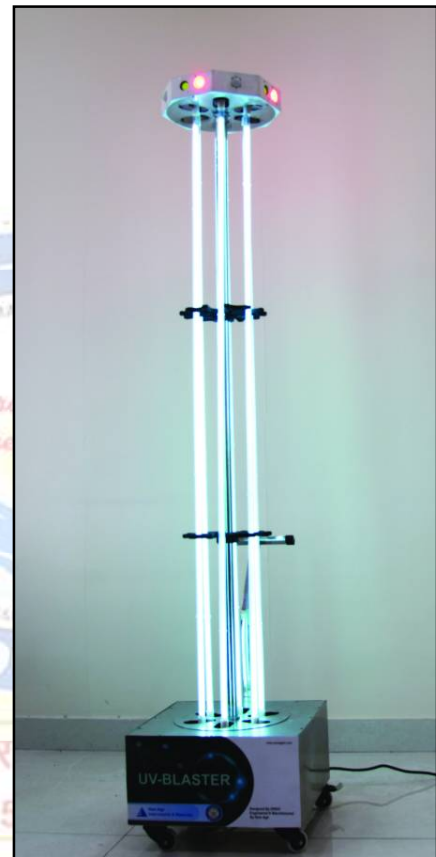
The UV based area sanitiser may be used by remote operation through laptop/mobile phone using wifi link. The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room.

This sanitiser switches off on accidental opening of room or human intervention. One more salient safety feature of the product is the key to arm operation.

ABB/SS/Nampi/KA/DK/Savvy/ADA

(Release ID: 1620919)

<https://pib.gov.in/PressReleasePage.aspx?PRID=1620919>





डीआरडीओ ने यूवी कीटाणु शोधन टॉवर विकसित किया

रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने भारी संक्रमण वाले क्षेत्रों के त्वरित और रसायन मुक्त कीटाणुशोधन के लिए एक अल्ट्रा वॉयलेट (यूवी) डिसइंफेक्सन टॉवर विकसित किया है।

यूवी ब्लास्टर नाम का यह उपकरण एक यूवी आधारित क्षेत्र सैनिटाइजर है, जिसे डीआरडीओ की दिल्ली स्थित प्रतिष्ठित प्रयोगशाला लेजर साइंस एंड टेक्नोलॉजी सेंटर (एलएएसटीईसी) ने एम/एस न्यू एज इंस्ट्रुमेंट्स एंड मैटेरियल्स प्राइवेट लिमिटेड, गुरुग्राम की सहायता से डिजाइन और विकसित किया है।

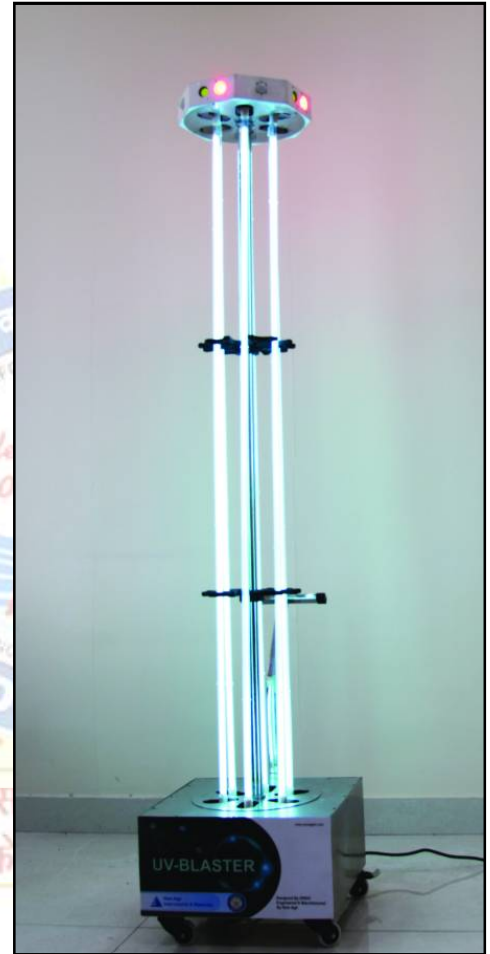
यूवी ब्लास्टर प्रयोगशालाओं और कार्यालयों में इलेक्ट्रॉनिक उपकरण, कम्प्यूटर और अन्य गैजेट जैसे उच्च प्रौद्योगिकी वाली सतहों में उपयोगी है, जो रासायनिक विधियों से कीटाणुशोधन के लिए उपयुक्त नहीं हैं। यह उत्पाद हवाई अड्डों, शॉपिंग माल, मेट्रो, होटलों, कारखानों, कार्यालयों आदि ऐसे क्षेत्रों के लिए भी प्रभावी है, जहां लोगों की आवाजाही खासी ज्यादा होती है।

यूवी आधारित क्षेत्र सैनिटाइजर को वाईफाई लिंक का इस्तेमाल करते हुए लैपटॉप/मोबाइल के माध्यम से दूरस्थ परिचालन के द्वारा उपयोग किया जा सकता है। इस उपकरण में 360 डिग्री प्रकाश के लिए 254 एनएम वेवलेंथ पर छह लैम्प होती हैं, जिसमें हरेक लैम्प की क्षमता 43 वाट यूवी-सी पावर है। कमरे के भीतर विभिन्न स्थानों पर उपकरण लगाकर लगभग 12x12 फुट आकार के एक कमरे को लगभग 10 मिनट और 400 वर्ग फुट के कमरे को 30 मिनट में कीटाणुमुक्त किया जा सकता है।

अचानक कमरा खुलने या मानवीय दखल पर यह सैनिटाइजर बंद हो जाता है। उत्पाद की एक अन्य विशेषता उसका हाथ से होने वाला परिचालन है।

एम/ एमपी/ डीसी (Release ID: 1620961)

<https://pib.gov.in/PressReleasePage.aspx?PRID=1620961>

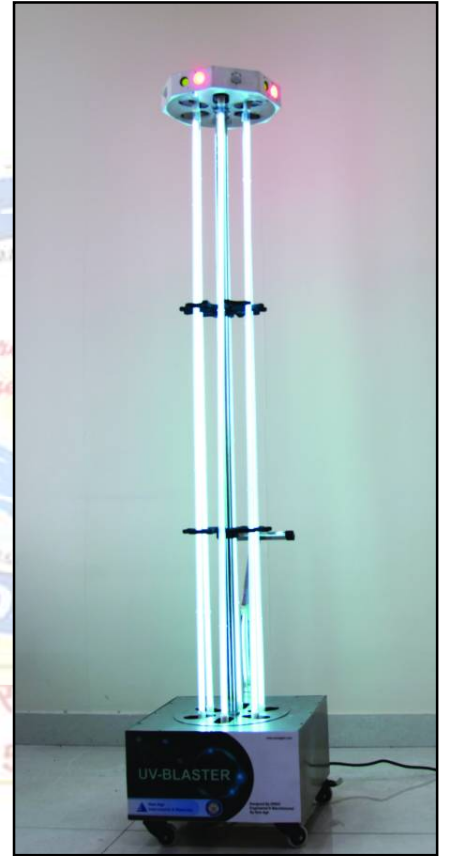




అతినీలలోహిత కిరణాలతో కూడిన క్రిమిసంహారక టవర్ను

అభివృద్ధి చేసిన డీఆర్డీఓ

ఇన్ఫెక్షన్ సంక్రమించేందుకు ఆస్కారం ఉన్న ప్రాంతాలలో వేగంగా మరియు రసాయన రహిత క్రిమిసంహారణ చేపట్టేందుకు వీలుగా డిఫెన్స్ రీసెర్చ్ అండ్ డెవలప్‌మెంట్ ఆర్గనైజేషన్ (డీఆర్ డీఓ) సంస్థ క్రిమిసంహారణ కోసం అతినీలలోహిత కిరణాలతో (యూవీ) కూడిన క్రిమిసంహారక టవర్ను ఒకదానిని అభివృద్ధి చేసింది. దయావీ ఆధారిత శానిటైజర్‌కు యూవీ బ్లాస్టర్ అనే పేరుపెట్టారు. డీఆర్డీఓకు చెందిన డిల్లీలోని లేజర్ సైన్స్ అండ్ టెక్నాలజీ సెంటర్ (లాస్‌టెక్) అనే ప్రధాన ప్రయోగశాల దీనిని రూపొందించి అభివృద్ధి చేసింది. గురుగ్రామ్‌కు చెందిన మెస్సర్స్ న్యూ ఏజ్ ఇన్స్ట్రుమెంట్స్ అండ్ మెటీరియల్స్ ప్రైవేట్ లిమిటెడ్ వారి సహకారంతో దీనిని అభివృద్ధి చేశారు. రసాయన పద్ధతులతో క్రిమి సంహారణ చేయలేని ప్రయోగశాలలు మరియు కార్యాలయాలలో పాటుగా హైటెక్ ఉపరితలం ఉండే వివిధ ఎలక్ట్రానిక్ పరికరాలు, కంప్యూటర్లు మరియు ఇతర గాడ్డెట్లపై క్రిమిసంహారణకు ఈ యూవీ బ్లాస్టర్ ఎంతగానో ఉపయోగపడుతుంది. విమానాశ్రయాలు, షాపింగ్ మాల్స్, మెట్రోలు, హోటళ్ళు, కర్మాగారాలు, కార్యాలయాలు మొదలైన పెద్ద సంఖ్యలో ప్రజల రాకపోకలు ఉండే ప్రాంతాలకు ఈ ఉత్పత్తి చాలా ప్రభావవంతంగా ఉంటుంది. ల్యాప్‌టాప్ / మొబైల్ ఫోన్, వైఫై లింక్‌ను ఉపయోగించి రిమోట్ ఆపరేషన్ ద్వారా యూవీ ఆధారిత ఏరియా శానిటైజర్‌ను వాడుకోవచ్చు.



10 నుంచి 30 నిమిషాల్లో డిజిస్టెక్షన్..

360 డిగ్రీల యూవీ కాంతి ప్రకాశం కోసం 254 ఎన్ఎమ్ తరంగదైర్ఘ్యం వద్ద 43 వాట్ల యూవీ-సీ శక్తితో కూడిన ఆరు దీపాలను ఈ టవర్లో వినియోగించారు. గదిలో వివిధ ప్రదేశాలలో పరికరాలను ఉంచడం ద్వారా సుమారు 12 x 12 అడుగుల పరిమాణం గల గదిని డిజిస్టెక్షన్ చేసేందుకు గాను 10 నిమిషాలు, అదే దాదాపుగా 400 చదరపు అడుగుల విస్తీర్ణం కలిగిన ప్రాంతాన్ని డిజిస్టెక్షన్ చేసేందుకు గాను కనీసం 30 నిమిషాల సమయం ఇది తీసుకుంటుంది. ఈ పరికరం ఆన్‌లో ఉన్నప్పుడు అనుకోకుండా ఎవరైనా గది తెరవడం లేదా మానవ జోక్యంతో ఈ పరికరం స్విచ్ ఆఫ్ అవుతుంది. ఆర్మ్ ఆపరేషన్లు ఈ ఉత్పత్తి యొక్క మరో ముఖ్యమైన భద్రతా లక్షణం.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1621018>

UV Blaster: DRDO develops WiFi-enabled UV disinfection tower

"The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360-degree illumination," said a note by the ministry of defence

By Amitabh Srivastava

New Delhi: The Defence Research and Development Organisation (DRDO) has developed an ultraviolet (UV) disinfection tower that can be used for rapid and chemical-free disinfection of infection-prone areas. It is likely to prove useful at a time when the novel coronavirus pandemic has disrupted normal life across India.

A ministry of defence note released on May 4 says that the equipment named "UV blaster" is a UV-based area sanitizer designed and developed by Laser Science & Technology Centre (LASTEC), DRDO's Delhi-based premier laboratory. The Centre has developed it with the help of "New Age Instruments and Materials Private Limited, Gurugram," adds the note.

The note further adds, "The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360-degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room."

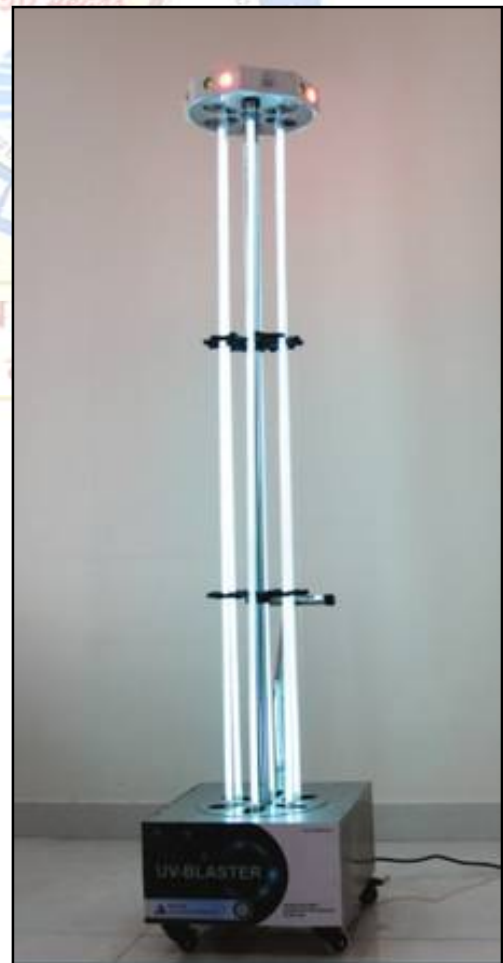
Experts believe that ultraviolet light can be broken up into four categories based on a specific range of wavelengths. The UV-C, a lower and more powerful wavelength of ultraviolet light than found in sunlight, is used for disinfection of surfaces, especially in hospital settings. It is seen as successful in mitigating the virus, as its radiation inactivates cells from reproducing. So far, no micro-organisms have shown immunity to UV exposure anywhere in the world.

The ministry's note says that the UV Blaster is useful for high-tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods. The product is also effective for areas with a large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc.

In addition, the UV blaster is also a user-friendly device that can be used by remote operation through laptop/mobile phone using a Wi-Fi link. This sanitiser switches off on the accidental opening of a room or human intervention. One more salient safety feature of the product is the key to arm operation.



Photo of the UV Blaster (Picture Courtesy: Twitter @SpokespersonMoD)



Earlier, the DRDO's Centre for Fire Explosive and Environment Safety in Delhi had developed an automatic mist-based sanitiser dispensing unit, a contactless sanitiser dispenser which sprayed alcohol-based hand sanitiser for use at the entry of complexes.

<https://www.indiatoday.in/india/story/uv-blaster-drdo-develops-wifi-enabled-uv-disinfection-tower-1674387-2020-05-04>



Tue, 05 May 2020

Defence research body develops "UV Blaster" to sanitize virus-prone areas

The disinfection tower can be used remotely through laptop or mobile phone using a WIFI link, the ministry said. It has six lamps each with 43 watts of UVC power at 254 nanometre wavelength for 360 degree illumination

New Delhi: The Defence Research and Development Organisation has developed an ultraviolet (UV) disinfection tower for rapid and chemical-free sanitization of areas that are highly prone to the coronavirus infection, the Defence Ministry said on Monday.

"For a room of about 12x12 feet dimension, the disinfection time is about 10 minutes," the ministry said, adding a 400-square-foot area can be sanitized within 30 minutes if the device is positioned at different places within the room.

The disinfection tower can be used remotely through laptop or mobile phone using a WIFI link, the ministry said. It has six lamps each with 43 watts of UVC power at 254 nanometre wavelength for 360 degree illumination.

The device -- named "UV blaster" -- is designed and developed by Laser Science & Technology Centre, the Delhi-based premier laboratory of the DRDO, with the help of Gurugram-based New Age Instruments and Materials Private Ltd, the ministry said.

"The UV Blaster is useful for high tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods," the ministry noted.

The device is also effective for areas with large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc, the ministry added.

India has been under a lockdown since March 25 to curb the spread of the coronavirus, which has infected around 42,500 people and killed more than 1,370 people in the country.

<https://www.ndtv.com/india-news/coronavirus-india-drdo-develops-uv-blaster-to-sanitize-virus-prone-areas-2223218>



The UV Blaster is useful for high tech surfaces like computers and other gadgets. (Representational)

DRDO develops Ultraviolet disinfection tower "UV Blaster"

The tower is known as 'UV Blaster' which is a UV based area sanitizer.

It is designed and developed by the Laser Science and Technology Centre (LASTEC), a Delhi based premier laboratory of DRDO

By Shailaja Tripathi

An Ultraviolet (UV) disinfection tower has been developed by the Defence Research and Development Organisation (DRDO). It will help in the chemical-free and rapid disinfection of high infection-prone areas.

The tower is known as 'UV Blaster' which is a UV based area sanitizer. It is designed and developed by the Laser Science and Technology Centre (LASTEC).

LASTEC is a Delhi based premier laboratory of DRDO and the equipment was developed along with the help of New Age Instruments and Materials Private Limited, Gurugram.

The news regarding the development of UV Blaster was shared via a tweet.

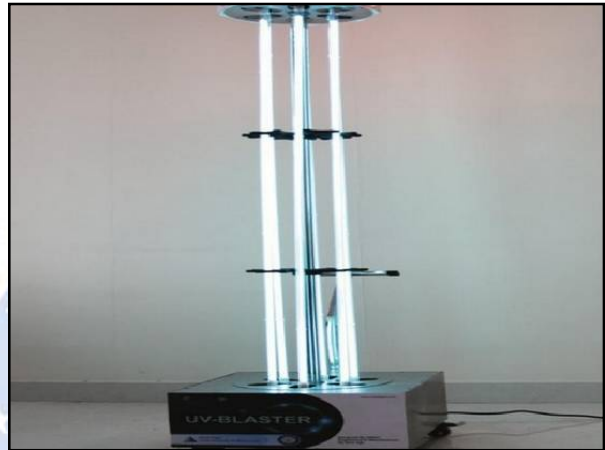
Significance:

The UV Blaster will be helpful in the disinfection of high tech surfaces such as computers, electronic equipment, and other forms of gadgets in laboratories and offices. These are the items that are not suitable for disinfection through chemical methods.

The product will also be useful for the areas with a large flow of people such as metros, airports, shopping malls, hotels, factories, offices, etc.

How UV Blaster works:

- It can easily be used by the remote operation through a mobile phone or laptop using wifi link.
- The equipment consists of 6 lamps and each has 43 watts of UV-C power at 254 nm wavelength for 360-degree illumination.
- The disinfection time will be about 10 minutes for a room of about 12 X 12 feet dimension.
- 30 minutes time for the 400 square feet if the equipment is positioned at different places within the room.
- The sanitiser will switch off if there is the human intervention or an accidental opening of the room.



<https://www.jagranjosh.com/current-affairs/drdo-develops-ultraviolet-disinfection-tower-uv-blaster-1588603149-1>

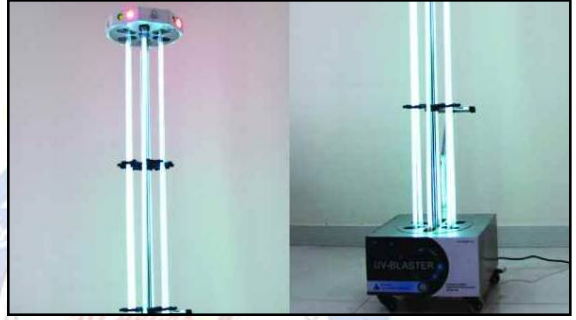
कोरोना को हराने के लिए DRDO ने बनाया अल्ट्रावायलेट डिसइंफेक्शन टावर

अंजन कुमार चौधरी

नई दिल्ली: डिफेंस रिसर्च एंड डेवलपमेंट ऑर्गेनाइजेशन ने एक ऐसा अल्ट्रावायलेट डिसइंफेक्शन टावर बनाया है, जो बहुत ज्यादा संक्रमण वाले इलाकों को भी बिना किसी रसायन के कुछ ही मिनटों में असंक्रमित कर देगा। रक्षा मंत्रालय के मुताबिक 'यूवी ब्लास्टर' नाम के इस अल्ट्रावायलेट सैनिटाइजर का इस्तेमाल ऐसी जगहों पर ज्यादा आसानी से किया जाएगा, जहां रसायनों का छिड़काव करने में मुश्किलें होती हैं। बता दें कि डीआरडीओ की ओर से हाल ही में कोरोना के खिलाफ जंग में एक माइक्रोवेव स्ट्रलाइजर भी बनाया गया है।

यूवी ब्लास्टर सैनिटाइजर

कोरोना वायरस से जारी जंग में इस वक्त देश को बड़े पैमाने पर डिसइंफेक्शन उपकरणों की आवश्यकता है। ज्यादातर डिसइंफेक्शन उपकरणों में रसायनों का इस्तेमाल होता है, जो हम अक्सर इन दिनों सड़कों पर छिड़काव करते देख रहे हैं। लेकिन, डीआरडीओ ने 'यूवी ब्लास्टर' नाम का एक यंत्र विकसित किया है, जो एक अल्ट्रावायलेट एरिया सैनिटाइजर है। सोमवार को रक्षा मंत्रालय की ओर से जारी बयान में बताया गया है कि, 'यूवी ब्लास्टर प्रयोगशालाओं, दफ्तरों में रखे इलेक्ट्रॉनिक उपकरणों, कंप्यूटर और दूसरे हाई टेक सतहों के लिए उपयोगी है, जहां रसायनिक तरीकों



से डिसइंफेक्शन करना उपयोगी नहीं है। यह प्रोडक्ट ऐसी जगहों पर भी प्रभावी हो सकता है जहां लोगों की ज्यादा मौजूदगी रहती है, जैसे कि एयरपोर्ट, शॉपिंग मॉल्स, मेट्रो, होटलों, फैक्ट्रियों और दफ्तरों आदि में।'

भीड़-भाड़ वाले इलाकों के लिए भी उपयोगी

यूवी ब्लास्टर की डिजाइन डीआरडीओ के दिल्ली स्थित एक प्रतिष्ठित लैब लेजर साइंस और टेक्नोलॉजी सेंटर (LASTEC) ने तैयार की है। इस उपकरण को तैयार करने में गुरुग्राम स्थित न्यू एज इंस्ट्रूमेंट्स एंड मैटेरियल्स प्राइवेट लिमिटेड भी सहभागी है। खास बात ये है कि यूवी बेस्ड एरिया सैनिटाइजर को लैपटॉप या मोबाइल पोन की वाई-फाई लिंक से भी ऑपरेट किया जा सकता है। इस उपकरण में यूवी-सी पावर के 43 वॉट के 6 लैंप लगाए गए हैं, जो 12X12 फीट के कमरे को 10 मिनट में 400X400 फीट के एरिया को 30 मिनट में डिसइंफेक्ट करने में सक्षम है। जिस समय इस यूवी सैनिटाइजर के जरिए रूम को डिसइंफेक्ट करने का काम किया जाएगा और कोई गलती से कमरे में दाखिल हो गया तो यह खुद ब खुद स्विच ऑफ हो जाएगा।

माइक्रोवेव स्टरलाइजर का हो चुका है निर्माण

कुछ दिन पहले कोरोना के खात्मे के लिए डिफेंस इंस्टीट्यूट ऑफ एडवांस टेक्नोलॉजी पुणे और डीआरडीओ ने मिलकर एक माइक्रोवेव स्टरलाइजर का भी निर्माण किया था। इस उपकरण का नाम 'अतुल्य' रखा गया है। इसके बारे में रक्षा मंत्रालय ने बताया था कि कोरोना वायरस 560-600 डिग्री तापमान में खत्म हो जाता है। इसी के आधार पर डिफेंस इंस्टीट्यूट ऑफ एडवांस टेक्नोलॉजी पुणे ने माइक्रोवेव स्टरलाइजर तैयार किया है। ये उपकरण पोर्टेबल है, जिसको कहीं पर भी आसानी से रखा जा सकता है। रक्षा मंत्रालय के मुताबिक इसका परीक्षण कर लिया गया है, जो इंसानों के लिए पूरी तरह से सुरक्षित है। ये सिर्फ तीन किलोग्राम का है, ऐसे में इसे आसानी से कहीं पर ले जाया जा सकता है। वहीं किसी चीज को संक्रमण मुक्त करने के लिए इसे 30 सेकंड से एक मिनट तक का वक्त लगेगा। ये वक्त उस चीज के साइज पर निर्भर करेगा। रक्षा मंत्रालय के मुताबिक इसका उपयोग नॉन मैटेलिक चीजों के लिए ही किया जा सकता है।

<https://hindi.oneindia.com/news/india/drdo-builds-ultraviolet-disinfection-tower-to-defeat-coronavirus/articlecontent-pf277940-558683.html>



Tue, 05 May 2020

DRDO ने बनाया UV ब्लास्टर टावर, 10 मिनट में कमरा कर देगा वायरस मुक्त

डीआरडीओ (DRDO) के अनुसार इस यूवी ब्लास्टर से कोरोना वायरस (Covid 19) के अति संवेदनशील क्षेत्रों को कम समय में वायरस मुक्त किया जा सकता है।

नई दिल्ली: देश में कोरोना वायरस संक्रमण (Coronavirus) के मामले सोमवार को बढ़कर 42836 हो गए। साथ ही देश में अब तक 1389 लोगों की मौत हो चुकी है। देश-दुनिया में कोरोना वायरस संक्रमण (Covid 19) के बढ़ते खतरे को देखते हुए वैज्ञानिक स्तर पर वैक्सीन, दवा और अन्य जरूरी उपकरण बनाने पर काम चल रहा है। इस बीच भारत के डिफेंस रिसर्च एंड डेवलपमेंट ऑर्गनाइजेशन (DRDO) ने खास उपकरण बनाने का दावा किया है। डीआरडीओ के अनुसार उसने यूवी (अल्ट्रावायलेट) ब्लास्टर नामक यूवी डिसइंफेक्टेंट टावर (UV blaster tower) बनाने में कामयाबी हासिल की है। यह मशीन 12 गुणा 12 के कमरे को 10 मिनट में वायरसमुक्त करने की क्षमता रखती है। डीआरडीओ के अनुसार इस यूवी ब्लास्टर से कोरोना वायरस के अति संवेदनशील क्षेत्रों को कम समय में वायरस मुक्त किया जा सकता है। इसे दिल्ली स्थित डीआरडीओ की प्रयोगशाला लेजर साइंस एंड टेक्नोलॉजी सेंटर ने गुरुग्राम की कंपनी न्यू एज इंस्ट्रूमेंट एंड मैटीरियल्य प्रा. लि. के साथ मिलकर बनाया है।



डीआरडीओ के अनुसार यूवी ब्लास्टर को कंप्यूटर और अन्य इलेक्ट्रॉनिक उत्पादों को कीटाणु रहित करने के लिए इस्तेमाल किया जाता है। यह उत्पाद एयरपोर्ट, शॉपिंग मॉल, मेट्रो, होटल, फैक्ट्री और ऑफिसों में इस्तेमाल

किया जा सकता है। इसे वाईफाई के जरि दूर से चलाया जा सकता है। 12 गुणा 12 का कमरा यह 10 मिनट में वायरस मुक्त कर सकता है। वहीं 400 स्क्वायर फीट क्षेत्र को यह 30 मिनट में वायरस मुक्त कर देगा।

वहीं पिछले 24 घंटे में देश में कोरोना वायरस संक्रमण के 2573 मामले सामने आए हैं। 24 घंटे में 83 लोगों की मौत हुई है। देश में अब तक कोरोना वायरस संक्रमण के कुल 42836 केस सामने आ चुके हैं। वहीं देश में पिछले 24 घंटे में 1074 लोग ठीक हुए। यह अब तक का 24 घंटे में सबसे अधिक ठीक होने का आंकड़ा है। स्वास्थ्य मंत्रालय के अनुसार अब तक देश में कुल 11762 लोग ठीक हो चुके हैं। देश में कोरोना वायरस संक्रमण के एक्टिव केस की संख्या 29685 है। वहीं देश में कोरोना मरीजों के ठीक होने की दर बढ़कर 27.52 फीसदी हो गई है।

<https://hindi.news18.com/news/nation/drdo-developes-uv-disinfection-tower-uv-blaster-for-covid-19-coronavirus-3080443.html>



Tue, 05 May 2020

कोरोना वायरस के 'रेड जोन' इलाकों के लिए DRDO ने बनाया खास UV टावर, जानें कैसे करता है काम

नई दिल्ली: रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) ने कोरोना वायरस से अत्यधिक संक्रमण की आशंका वाले क्षेत्रों (रेड जोन) के लिए पराबैंगनी (यूवी) विसंक्रमण टावर का विकास किया है जिससे उन इलाकों का त्वरित और रसायन मुक्त सेनिटाइजेशन हो जाएगा। रक्षा मंत्रालय ने सोमवार (4 मई) को यह जानकारी दी।

मंत्रालय ने कहा, "12 फुट लंबे एवं 12 फुट चौड़े कमरे को संक्रमण मुक्त करने का समय दस मिनट है। इसने कहा कि अगर उपकरण को कमरे के अंदर अलग-अलग स्थानों पर लगाया जाता है तो 400 वर्गफुट इलाके को 30 मिनट के अंदर संक्रमण मुक्त किया जा सकता है।" मंत्रालय ने बताया कि विसंक्रमण टावर को वाईफाई लिंक से जोड़कर लैपटॉप या मोबाइल फोन के जरिए दूरवर्ती इलाकों में भी इस्तेमाल किया जा सकता है। इसमें छह लैंप लगे हुए हैं और प्रत्येक में 43 वॉट का यूवीसी है।

मंत्रालय ने बताया कि उपकरण का नाम "यूवी ब्लास्टर" है जिसे दिल्ली में स्थित डीआरडीओ की प्रयोगशाला लेजर साइंस एंड टेक्नोलॉजी सेंटर ने गुरुग्राम के न्यू एज इंस्ट्रूमेंट एंड मैटेरियल्स प्राइवेट लिमिटेड के सहयोग से विकसित किया है। मंत्रालय ने कहा, "प्रयोगशालाओं और कार्यालयों में कंप्यूटर एवं अन्य गैजट जैसे इलेक्ट्रॉनिक उपकरण के लिए यूवी ब्लास्टर उपयोगी है जहां रासायनिक विधि से संक्रमण मुक्त करना उपयुक्त नहीं होता।"

मंत्रालय ने बताया कि हवाई अड्डे, शॉपिंग मॉल, मेट्रो, होटल, फैक्टरी, कार्यालयों जैसे भीड़भाड़ वाले स्थानों के लिए भी यह उपकरण उपयोगी है। भारत में कोरोना वायरस को फैलने से रोकने के लिए 25 मार्च से लॉकडाउन लागू है। यहां 42,500 लोग इस वायरस से संक्रमित हो चुके हैं और देश में 1370 से अधिक लोगों की मौत हो चुकी है।

<https://www.livehindustan.com/national/story-drdo-develops-uv-disinfection-tower-for-sanitizing-coronavirus-prone-areas-3193607.html>

DRDO does it again! Develops UV disinfection tower, handheld UV-C device and cabinet

An Ultra Violet (UV) Disinfection Tower for rapid and chemical free disinfection of high infection prone areas has been developed by the Defence Research and Development Organisation (DRDO)

By Huma Siddiqui

An Ultra Violet (UV) Disinfection Tower for rapid and chemical free disinfection of high infection prone areas has been developed by the Defence Research and Development Organisation (DRDO). This has been developed and designed by Laser Science & Technology Centre (LASTEC), with the help of M/s New Age Instruments and Materials Private Limited, Gurugram.

What will this do?

According to DRDO, the UV Blaster will be useful for sanitizing hi-tech surfaces including: computers, electronic equipment and other gadgets in laboratories. And also those offices which may not be suitable for disinfection using chemical methods.

This can also be used in areas with where there is going to be huge flow of people like the airports, factories, hotels, offices, shopping malls and metros.

More about the UV Blaster

This UV based sanitiser can be operated by remote operation using wifi link through laptop/mobile phone.

There are six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination.

Positioning the equipment at different places within the room, disinfecting an area of around 12 x 12 feet dimension, it will take about 10 minutes and 30 minutes for 400 square feet area.

Safety Feature

This system switches off on accidental opening of room or if there is a human intervention. And another salient feature of the product is the key to arm operation.

Ultraviolet C Light based sanitization box and hand held UV-C device

The Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), two premier laboratories under DRDO have already designed & developed Ultraviolet C Light based sanitization box and hand held UV-C device.

More about the UV-C Box

This consists of a shorter, more energetic wavelength of light and can destroy genetic material in COVID-19. It is environment friendly and is contact free effective method of sanitization. The UV-C box is designed for disinfecting personal belongings like mobile phones, ipads, tablets, currency, office file covers etc.

Covid-19 UVC Sanitizer Cabinet

Research Centre Imarat (RCI) has developed a UVC Sanitizer cabinet called DRUVS (Defence Research Ultraviolet Sanitizer). These can be used to sanitize any object without using chemicals viz N-95 Masks, Mobile phones, iPad, Laptop, Currency Notes, Cheque leaves, challans, Passbooks, Paper, envelopes and many more items etc.

<https://www.financialexpress.com/defence/drdo-does-it-again-develops-uv-disinfection-tower-handheld-uv-c-device-and-cabinet/1947960/>



This has been developed and designed by Laser Science & Technology Centre (LASTEC), with the help of M/s New Age Instruments and Materials Private Limited, Gurugram.

Tue, 05 May 2020

India's lab develops UV disinfection tower to fight COVID-19

New Delhi: May 4 (Xinhua) -- India's Defence Research and Development Organisation (DRDO) has developed an Ultra Violet (UV) disinfection tower for rapid and chemical free disinfection of high infection prone areas, officials said Monday.

"The equipment named UV blaster is a UV based area sanitizer designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi based premier laboratory of DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram," a statement issued by ministry of defense said.

"The UV Blaster is useful for high tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods."

According to the ministry, the UV disinfection tower is also effective for areas with large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc.

The UV based area sanitizer may be used by remote operation through laptop or mobile phone using wifi link.

"The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room," the ministry said.

This sanitizer switches off on accidental opening of room or human intervention. Enditem
http://www.china.org.cn/world/Off_the_Wire/2020-05/04/content_76006399.htm

The Statesman

Tue, 05 May 2020

DRDO develops UV disinfection tower helpful to fight Covid-19 in public places

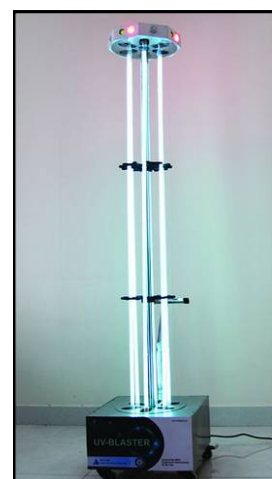
The product is effective for areas with a large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc

New Delhi: The Defence Research and Development Organisation (DRDO) has again come up with a significant contribution in the fight against deadly coronavirus as it has developed an ultraviolet (UV) disinfection tower for rapid and chemical-free disinfection of high infection-prone area.

The product is effective for areas with a large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc.

"The equipment named UV blaster is a UV based area sanitiser designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi based premier laboratory of DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram," Ministry of Defence said in a press note.

The UV Blaster is also useful for high tech surfaces like electronic equipment, computers and other gadgets in laboratories and offices that are not suitable for disinfection with chemical methods.



“The UV based area sanitiser may be used by remote operation through laptop/mobile phone using wifi link. The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room,” Ministry of Defence said.

This sanitiser switches off on accidental opening of room or human intervention. One more salient safety feature of the product is the key to arm operation, it added.

Earlier also, the DRDO had stepped forward to provide medical oxygen plants to hospitals in far-flung areas to help them generate their own oxygen supply.

It has also developed a mobile virology research and diagnostics laboratory.

<https://www.thestatesman.com/coronavirus/drdo-develops-uv-disinfection-tower-helpful-to-fight-covid-19-in-public-places-1502884098.html>

hindustantimes

Tue, 05 May 2020

DRDO develops UV disinfection tower to fight Covid-19

A DRDO official said that the system can be operated remotely through the laptop or mobile phone using the Wi-Fi link

New Delhi: In its latest contribution to the fight against coronavirus disease Covid-19, the Defence Research and Development Organisation (DRDO) has pitched in with an ultra-violet disinfection tower that can be used for sanitising places such as airports, shopping malls, metro stations, hotels, factories and offices, two officials said on Monday.

The tower can be used for rapid and chemical-free disinfection of high-risk areas where the flow of people is heavy, said the first official cited above.

The UV disinfection tower (named UV Blaster) has been developed by Laser Science and Technology Centre (Lastec) with the help of New Age Instruments and Materials Private Limited, Gurugram. Lastec is a Delhi-based DRDO laboratory.

“The UV Blaster is useful for high touch surfaces like electronic equipment in laboratories and offices that are not suitable for disinfection with chemical methods,” said the second official cited above.

He said the system can also be operated remotely through the laptop or mobile phone using the Wi-Fi link. The UV blaster takes 10 minutes to disinfect a 12 by 12 foot room and 30 minutes for a 400 sq ft area. This system switches off automatically on accidental opening of the room or human intervention, the second official added.

Different wings of the defence ministry, including the armed forces and the DRDO, have designed and developed a wide range of products to support the country’s effort to contain the spread of the pandemic.

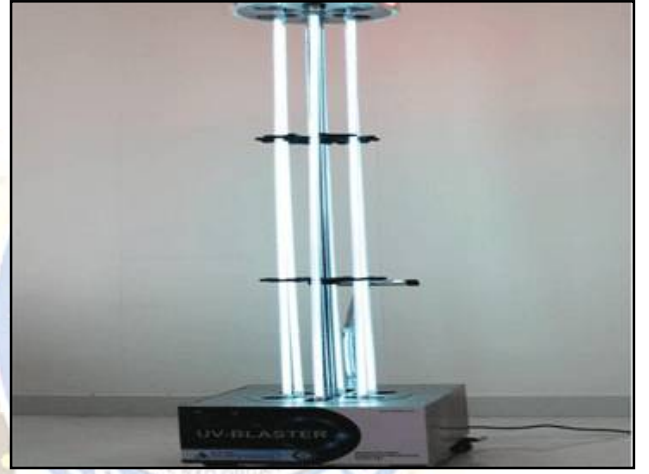
The DRDO has developed many products to combat the pandemic including ventilators, personal protective equipment (PPE) kits, large area sanitisation solutions and Covid-19 sample collection kiosks. Last month, the DRDO stepped forward to provide medical oxygen plants to hospitals in far-flung areas to help them generate their own oxygen supply.

<https://www.hindustantimes.com/india-news/drdo-develops-uv-disinfection-tower-to-fight-covid-19/story-zvIc0nrJaWZ69Sh2KRt3qK.html>

DRDO invented new mechine for areal sanitation without chemicals amid corona pandemic

కరోనాతో పోరాటానికి కొత్త ఆయుధం.. రూపొందించిన డీఆర్డీవో

న్యూఢిల్లీ: ఇప్పటివరకు కరోనాను నియంత్రించేందుకు రసాయనాలను చల్లడమే మనకు తెలుసు. కరోనా నుంచి రక్షించేందుకు ప్రజలపై కూడా శానిటైజర్లను చల్లుతున్నారు. కొన్ని మొబైల్ శానిటైజేషన్ గదులను కూడా తయారు చేశారు. అయితే కంప్యూటర్లు, ల్యాప్టాప్లు, తదితర ఎలక్ట్రానిక్ పరికరాలు ఉన్న చోట శానిటైజర్ను స్ప్రి చేయడం సాధ్యపడదు. దీనివల్ల వైరస్ వ్యాప్తి పెరిగే ప్రమాదం ఏర్పడుతుంది. అయితే ఇలాంటి పరిస్థితులలో కూడా కరోనా వైరస్ను అంతమొందించేందుకు డిఫెన్స్ రీసెర్చ్ డెవలప్ మెంట్ ఆర్గనైజేషన్(డీఆర్డీఓ) ఓ పరికరాన్ని రూపొందించింది.



దాని పేరు 'యూవీ బ్లాస్టర్'. ఈ పరికరం యూవీ(అతివీలలోహిత) కిరణాల సాయంతో పనిచేస్తుంది. ఈ పరికరం ఓ టవర్ ఆకారంలో ఉంటుంది. 43 వాట్ల యూవీ-సీ బల్బులు ఆరు ఇంచులలో ఉంటాయి. ఇవి 254 నానోమీటర్ తరంగ దైర్ఘ్యంతో పనిచేస్తాయి. ఈ పరికరాన్ని మొబైల్ లేదా కంప్యూటర్ ద్వారా రిమోట్తో ఆపరేట్ చేయవచ్చు. దాదాపు 12x12(144) చదరపు అడుగులు ఉన్న గదిని ఈ పరికరం 10 నిముషాలలో పూర్తిగా శానిటైజ్ చేయగలదు. అదే 400 చదరపు అడుగుల గదిని శానిటైజ్ చేయాలంటే 30 నిముషాల వరకు పడుతుంది. యూవీ బ్లాస్టర్కు సంబంధించి రక్షణ శాఖ స్పందిస్తూ, ఆఫీసులు, లాబోరేటరీలు ఎలక్ట్రానిక్ పరికరాలు ఎక్కువగా ఉండే ప్రాంతాల్లోనే కాకుండా జనసమర్థం ఎక్కువగా ఉండే విమానాశ్రయాలు, షాపింగ్ మాల్స్, మెట్రో స్టేషన్లు, హోటళ్లు తదితర ప్రాంతాల్లో ఈ యూవీ బ్లాస్టర్ను వినియోగించి పరిసరాలన్నింటినీ శానిటైజ్ చేయవచ్చని తెలిపింది. ఈ పరికరం పూర్తిగా రసాయన రహితంగా పని చేస్తుందని వెల్లడించింది.

ఇదిలా ఉంటే ఈ పరికరాన్ని ఏదైనా గదిలో ఉంచి ఆన్ చేసిన తర్వాత అనుకోకుండా ఆ గదిలోకి ఎవరైనా ప్రవేశించారంటే వెంటనే పరికరం ఆఫ్ అయిపోతుందని, దీనివల్ల మనుషులపై దీని ప్రభావం ఉండదని డీఆర్డీఓ తెలిపింది.

<https://www.andhrajyothy.com/telugunews/drdo-invented-new-mechine-for-areal-sanitation-without-chemicals-amid-corona-pandemic-2020050406424912>

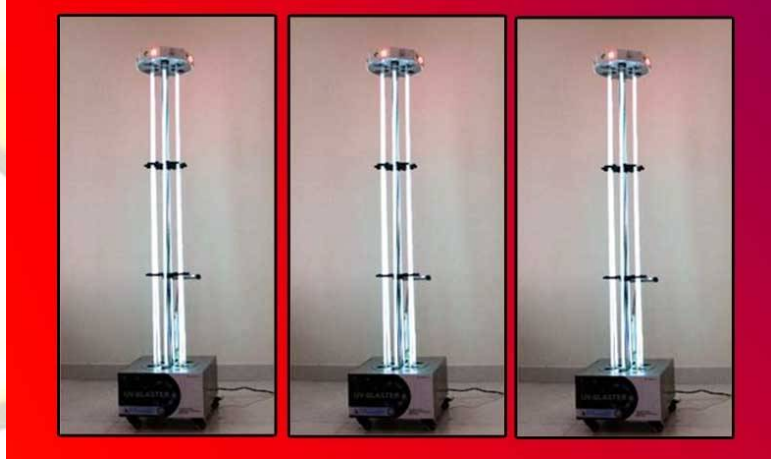
DRDO develops wifi enabled UV disinfection tower కరోనా దుమ్ముదులిపే డీఆర్డీవో రామబాణం

భారత ప్రభుత్వ రక్షణ సంస్థ డీఆర్డీవో మరో సరికొత్త ఆవిష్కరణ చేసింది. దానికి 'యూవీ బ్లాస్టర్' అని నామకరణం చేసింది. ఈ పరికరం ద్వారా వైరస్ వ్యాప్తి

By Jyoti Gadda

కరోనా వైరస్ నుంచి కాపాడుకునేందుకు ఇంతకాలం సానిటైజర్లు, ఫేస్ మాస్కులు, గ్లోజుల మీదనే ఆధారపడ్డాము. కానీ, ఇప్పుడు దానికి డీఆర్డీవో రామబాణం వచ్చేసింది. భారత ప్రభుత్వ రక్షణ సంస్థ డీఆర్డీవో మరో సరికొత్త ఆవిష్కరణ చేసింది. దానికి 'యూవీ బ్లాస్టర్' అని నామకరణం చేసింది. ఈ పరికరం ద్వారా వైరస్ వ్యాప్తి చెందకుండా కాపాడవచ్చని పేర్కొంటోంది. 'యూవీ బ్లాస్టర్' పరికరం యూవీ(అతినీలలోహిత) కిరణాల సాయంతో పనిచేస్తుంది.

కంప్యూటర్లు, టీవీలు, ల్యాప్టాప్ల వంటి ఉపకరణాల ఉపరితలాలను అతినీల లోహిత(యూవీ) కిరణాలతో శుద్ధిచేయగల టవర్ను డీఆర్డీవో- లేజర్ సైన్స్ అండ్ టెక్నాలజీ సెంటర్ రూపొందించింది. రసాయనాలు, క్రిమిసంహారకాలతో శుద్ధిచేసేందుకు వీలుపడని ప్రతీ



వస్తువును, పరికరాన్ని ఇది 360 డిగ్రీల్లో యూవీ కిరణాలతో శుభ్రం చేయగలదు. ఓ టవర్ ఆకారంలో 43 వాట్ల యూవీ-సీ బల్బులు ఉంటాయి. ఇవి 254నానోమీటర్ తరంగ దైర్ఘ్యంతో పనిచేస్తోంది. ఈ పరికరం వైఫై ద్వారా ఆపరేట్ చేసే వీలుంది. 12 అడుగుల పొడవు, 12 అడుగుల వెడల్పు కలిగిన గదిని వైరస్ రహితంగా శానిటైజ్ చేసేందుకు 10 నిమిషాల సమయం పడుతుంది. 400 చదరపు అడుగుల ఏరియా శుద్ధికి అరగంట సమయాన్ని తీసుకుంటుంది.

<https://tv9telugu.com/uv-blaster-drdo-develops-wifi-enabled-uv-disinfection-tower-237879.html>



Tue, 05 May 2020

हाई इन्फेक्शन एरिया को सैनिटाइज करने के लिए DRDO ने बनाया UV ब्लास्टर

लेबोरेट्री, इलेक्ट्रॉनिक डिवाइस, कंप्यूटर और दूसरे गैजेट्स इस UV ब्लास्टर से आसानी से साफ़ कर सकते हैं। यह सैनिटाइजर एयरपोर्ट, शॉपिंग मॉल, फैक्ट्री, ऑफिस जैसी जगहों पर भी आसानी से इस्तेमाल किया जा सकता है।

By Sumit Choudhary

कोरोनोवायरस (Coronavirus) का कहर थमने का नाम ही नहीं ले रहा है। ऐसे में सबसे ज्यादा ज़रूरी है उन जगहों को सैनिटाइज और इन्फेक्शन फ्री रखना जहां कोरोना केस ज्यादा हैं। ऐसे में जल्दी और केमिकल फ्री सैनिटाइजेशन के लिए ही डिफेन्स रिसर्च एंड डेवलपमेंट आर्गनाइजेशन (DRDO) ने अल्ट्रावायलेट (UV) डिसइन्फेक्शन टावर बनाया है।

दिल्ली बेस्ड लेज़र साइंस एंड टेक्नोलॉजी सेंटर (LASTEC), जो कि DRDO का ही एक भाग है, ने गुरुग्राम की न्यू ऐज इंस्ट्रूमेंट एंड मैटीरियल्स प्राइवेट लिमिटेड के साथ मिलकर अल्ट्रावायलेट (UV) डिसइन्फेक्शन टावर बनाया है। इस UV बेस्ड एरिया सैनिटाइजर का नाम UV ब्लास्टर रखा गया है। यह उन सभी चीजों को सैनिटाइज करने के लिए आसानी से इस्तेमाल किया जा सकता है, जिन्हें साफ़ करने के लिए किसी केमिकल का इस्तेमाल नहीं कर सकते हैं।

इलेक्ट्रॉनिक डिवाइस और बड़े एरिया आसानी से कर सकते हैं साफ़

लेबोरेट्री, इलेक्ट्रॉनिक डिवाइस, कंप्यूटर और दूसरे गैजेट्स इस UV ब्लास्टर से आसानी से साफ़ कर सकते हैं। यह सैनिटाइजर एयरपोर्ट, शॉपिंग मॉल, फैक्ट्री, ऑफिस जैसी उन जगहों पर भी आसानी से इस्तेमाल किया जा सकता है, जिनका एरिया और आने वाले लोगों की संख्या ज्यादा होती है। इसे दूर से भी मोबाइल, लैपटॉप की मदद से Wi-Fi से कनेक्ट कर चला सकते हैं।

अल्ट्रावायलेट किरणों से काम करने वाले इस UV ब्लास्टर में 43 वाट UV-C पावर के 6 लैंप लगते हैं जोकि 254 नैनोमीटर वेव लेंथ पर काम करते हैं ताकि 360 डिग्री यानि की हर तरफ रोशनी पहुंचसके। 12*12 फीट साइज़ के कमरे को सैनिटाइज करने में यह सैनिटाइजर 10 मिनट लेता है। वहीं 400 स्क्वायर फीट के कमरे को साफ़ करने में इसे लगभग 30 मिनट लगते हैं।

सैनिटाइजेशन प्रोसेस के बीच अचानक से कमरे में किसी के पहुंच जाने या दरवाजा खुल जाने की स्थिति में यह UV ब्लास्टर अपने आप बंद हो जाता है। हाथ से ऑपरेट करने के लिए इसमें बटन भी दिया गया है, ताकि इसे इधर उधर घुमाने में आसानी और सेफ्टी रहे।

<https://www.tv9bharatvarsh.com/tech-trends/drdo-develops-uv-sanitiser-for-infected-prone-areas-211323.html>

DRDO and Indian Army will make special equipment for doctors

The whole of India is united in the war against the coronavirus. While on one hand railway coaches are being converted into isolation wards, on the other hand a large amount of hand sanitizer has been made. At the same time, the students have used the low cost and easily available resources to make such equipment, which has been very useful for the Corona fighters. Now in this episode, the Indian Army, Navy and DRDO have prepared special devices, which will be of great use to doctors and medical staff.

DRDO created special suit

Defense organization Defense Research and Development Organization (DRDO) has created a special bio suite for medical, paramedical and other personnel. This suit uses textiles, coating and nanotechnology. Apart from this, this suit has been designed for the safety of synthetic blood.



Indian Army prepares for remote-control trolley

The Indian Army's electronics and mechanical engineers have created a remote-controlled trolley with special technology for doctors. Wash-basin and dustbin have been added to this trolley. This trolley has a place to hold luggage. Also this trolley can be operated easily.

Indian army made economical thermal scanner

The Indian Army has created an economical thermal scanner for doctors and medical staff. This thermal scanner can scan the infected in a few seconds. Apart from this, surgical mask and hand sanitizer have also been prepared.

Mobile lab designed for DRDO virus testing

DRDO's Hyderabad-based research center has set up a special mobile lab to screen coronavirus infections. Through this lab, doctors will be able to prevent coronavirus easily.

<https://www.defencenews.in/article/DRDO-and-Indian-Army-will-make-special-equipment-for-doctors-830443>

Business Today

DRDO develops UV disinfection tower for sanitising coronavirus-prone areas

The UV-based area sanitiser may be used by remote operation through laptop/mobile phone using WiFi link. The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination

New Delhi: Defence Research and Development Organisation (DRDO) has developed an Ultra Violet (UV) disinfection tower for rapid and chemical-free disinfection of COVID-19 infection prone areas.

The equipment named UV Blaster is a UV-based area sanitiser designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi-based premier laboratory of DRDO, with the help of New Age Instruments and Materials from Gurugram.

The UV Blaster is useful for surfaces like electronic equipments, computers and other gadgets in laboratories and offices that are not suitable for disinfecting with chemical methods. The product is also effective for areas with large flow of people such as airports, shopping malls, metros, hotels, factories, offices, etc.

The UV-based area sanitiser may be used by remote operation through laptop/mobile phone using WiFi link. The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room.

This sanitiser switches off on accidental opening of room or human intervention. One more salient safety feature of the product is the key to arm operation.

On Monday, the total number of confirmed coronavirus cases in India closer to the 43,000-mark, while the death toll topped the 1,300-mark, according to the latest data released by the Ministry of Health and Family Welfare. With 2,573 new cases in the last 24 hours, the total number of confirmed COVID-19 cases climbed to 42,836, while 83 patients succumbed to deadly virus during the same time period, taking the death toll to 1,389.

<https://www.businesstoday.in/current/economy-politics/drdo-develops-ultra-violet-disinfection-tower-for-sanitising-coronavirus-prone-areas/story/402855.html>



DRDO develops UV disinfection tower to fight coronavirus

दैनिक जागरण

Tue, 05 May 2020

डीआरडीओ का यूवी टॉवर कोरोना प्रभावित क्षेत्रों को कम समय में करेगा संक्रमणमुक्त

डीआरडीओ ने एक यूवी डिसइंफेक्शन टॉवर का विकास किया है। यह टॉवर कोरोना संक्रमण बहु लक्षेत्रों को बिना किसी केमिकल के इस्तेमाल के जल्द संक्रमणमुक्त करने में सक्षम है।

नई दिल्ली: रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने एक पराबैंगनी (यूवी) डिसइंफेक्शन टॉवर का विकास किया है। यह टॉवर कोरोना संक्रमण बहु लक्षेत्रों को बिना किसी केमिकल के इस्तेमाल के बहुत जल्द संक्रमणमुक्त करने में सक्षम है।

कमरे को 10 मिनट में संक्रमण मुक्त करेगा

रक्षा मंत्रालय ने सोमवार को एक बयान में बताया, 'कमरा अगर 12 गुना 12 फीट के आकार का हो तो यह टॉवर उसे सिर्फ 10 मिनट में संक्रमणमुक्त कर देगा। अगर कमरे का क्षेत्रफल 400 वर्गफीट हो और उपकरण उसके अलग-अलग हिस्सों में रखे जाएं तो उसे संक्रमणमुक्त होने में सिर्फ 30 मिनट लगेंगे।' मंत्रालय ने बताया कि इस टॉवर को लैपटॉप व मोबाइल के वाईफाई लिंक के जरिये भी संचालित किया जा सकता है। इसमें 43 वाट के छह यूवीसी लैंप लगे होते हैं, जिनका तरंगदैर्घ्य 254 नैनोमीटर होता है और वे 360 डिग्री में प्रकाश देते हैं।

कंप्यूटर और दूसरे इलेक्ट्रॉनिक गजट को संक्रमणमुक्त करने में प्रभावी

मंत्रालय ने बताया कि इस उपकरण का नाम 'यूवी ब्लास्ट' रखा गया है। इसका विकास डीआरडीओ की दिल्ली स्थित प्रयोगशाला लेजर साइंस एंड टेक्नोलॉजी सेंटर ने किया है। यह खास तौर पर कंप्यूटर और दूसरे इलेक्ट्रॉनिक गजट को संक्रमणमुक्त करने में प्रभावी है, जिन पर रसायन का इस्तेमाल सुविधाजनक नहीं होता। यह हवाईअड्डे, शॉपिंग मॉल्स, मेट्रो, होटल, फैक्ट्री व दफ्तर आदि को भी संक्रमणमुक्त करने में मददगार साबित होगा।

कैसे काम करेगा यूवी ब्लास्टर

यूवी ब्लास्ट में अल्ट्रा वायलेट लैंप लगे हैं। इसमें नीचे पहिया भी है। इसका उपयोग एयरपोर्ट, रेलवे स्टेशन, ट्रेन, हॉल, घर या कहीं भी किया जा सकता है। इसे मोबाइल या एप के माध्यम से ऑपरेट किया जा सकता है। उदाहरणस्वरूप किसी हॉल में कोरोना वायरस को यदि मारना है तो इसे वहां रखकर हॉल को बंद दिया जाएगा। बाहर से ही इसे ऑन कर दिया जाएगा। कुछ ही देर में कोरोना वायरस को मार देगा। एप या मोबाइल पर काम पूरा होने की जानकारी सामने आ जाएगी। ऑपरेशन के दौरान इसके नजदीक लोग नहीं जा सकेंगे क्योंकि इससे तेज किरणें निकलेंगी। यह स्वास्थ्य के लिए नुकसानदायक साबित हो सकता है।

<https://www.jagran.com/news/national-drdo-uv-tower-corona-to-transition-affected-areas-in-less-time-20243659.html>

अमर उजाला

Tue, 05 May 2020

डीआरडीओ का यूवी ब्लास्टर टॉवर करेगा कैमिकल मुक्त सैनिटाइजेशन

भारत में कोरोना का कहर लगातार जारी है। अधिकतर लोग अपनी सुरक्षा के लिए घरों में बंद हैं, लेकिन कुछ लोग ऐसे भी हैं जो हमारी जिंदगी बचाने के लिए काफी मेहनत कर रहे हैं। अपनी जिंदगी की परवाह किए बिना लोगों की सेवा में लगे हैं। ऐसे में इनकी सुरक्षा का भी ख्याल रखना होगा। इसी कड़ी में अनुसंधान एवं विकास संगठन (डीआरडीओ) ने कोरोना संक्रमण से बुरी तरह ग्रस्त जगहों में कैमिकल मुक्त सैनिटाइजेशन के लिए अल्ट्रा वायलेट डिसइंफेक्शन टॉवर तैयार किया है। रक्षा मंत्रालय ने सोमवार को बताया कि यह 12 वर्ग फीट के क्षेत्र को यह टॉवर तेजी से 10 मिनट के भीतर सैनिटाइज कर सकती है।

वहीं 400 वर्ग फुट जगह को 30 मिनट में सैनिटाइज किया जा सकता है। इसे लैपटॉप और मोबाइल से वाईफाई लिंक के जरिए चलाया जा सकता है। रक्षा मंत्रालय ने बताया कि इसमें 43 वॉट यूवीसी पावर के छह लैंप लगे हैं। ये 360 डिग्री पर 254 नैनोमीटर की वेबलेंथ पर काम करते हैं।

यूवी ब्लास्टर नाम वाले इस टॉवर को दिल्ली के लेजर साइंस एंड टेकनोलॉजी सेंटर में गुरुग्राम की न्यू एज इंस्ट्रूमेंट्स एंड प्राइवेट लिमिटेड कंपनी के साथ मिलकर तैयार किया गया है। इसका इस्तेमाल बड़े इलेक्ट्रॉनिक गैजेट की सतह, कंप्यूटर और प्रयोगशालाओं के अन्य उपकरणों को सैनिटाइज करने में भी किया जा सकता है। इसके अलावा हवाई अड्डों, शॉपिंग मॉल, सिनेमाघरों में भी इसका इस्तेमाल किया जा सकता है।

<https://www.amarujala.com/india-news/drdo-uv-blaster-tower-will-do-chemical-free-sanitization>



Tue, 05 May 2020

DRDO ready to work on the successor to Kaveri engine, Govt wants basic tech-ready

Defense Research and Development Organisation had proposed the Ministry of Defence (MOD) sometimes back to allow it to initiate a new afterburning turbofan project which will be a successor to the Kaveri engine program and asked for new funding after Kaveri engine program was terminated after thrust requirements for the LCA-Tejas program had changed and the engine failed to meet its Technical thrust requirements said an industry source close to idrw.org.

New Engine was to be designed to meet the power requirements of India's 5th Generation fighter jet program after repeated attempts to get core technology for the program from a joint venture with a foreign partner failed to get any desired results. The proposed engine could be a clean slate design and will not borrow core and other technology from the now-closed Kaveri engine program but MOD wanted DRDO to prove that it can design and complete smaller projects first and in the process also develop next-generation technology for the engine.



IUCAV-UHF20 program is the first project under which an engine with a maximum of 52 kilonewtons (KN) of thrust in dry configuration will be developed and has been allocated Rs. 1068.69 (crores) to power the Ghatak UCAV program. While it is often called as Dry version of Kaveri engine but industry source close to idrw.org inform us that it is a much more advanced version of the basic Dry Kaveri engine which has been developed and will see the incorporation of newer technology, probably why 1000 crores have been sanctioned for the program while whole Kaveri program had a budget of only 3000 crores.

MOD in 2018 also allocated special funds to do cutting edge research in the development of special alloys for the core of the engine and such smaller programs are funded to create basic technology required for which both MIDHANI and Defence Metallurgical Research Laboratory (DMRL) will be involved in the supply of specialized metal alloys like steel, titanium, and nickel for making the main body parts and engine.

(Note: Article cannot be reproduced without written permission of idrw.org in any form even for YouTube Videos to avoid Copy right strikes)

<https://idrw.org/drdo-ready-to-work-on-the-successor-to-kaveri-engine-govt-wants-basic-tech-ready/#more-226809>

Tue, 05 May 2020

ISRO may quietly gain a cost advantage despite the delay in Gaganyaan and Chandrayaan 3, says an expert

By Prabhjote Gill

- *The Indian Space Research Organisation's (ISRO) pivotal space programs may face a delay of at least a month or two due to the nationwide coronavirus lockdown.*
- *The silver lining is that future purchases for the space agency may come at a bargain.*
- *The inventory stockpiling with manufacturers could be picked up at cheaper prices once the lockdown lifts and the excess supply floats into the market.*

India's pivotal space projects — Gaganyaan and Chandrayaan 3 — face an uncertain future with the lockdown in place and most of the Indian Space Research Organisation's (ISRO) scientists now being forced to work from home.

India's first manned space mission, Gaganyaan, was pegged to launch in December 2021 and Chandrayaan 3, India's second attempt to land on the moon, was scheduled for later this year.

But, the silver lining could be that space agency's future projects, already known for being on a budget, could get even cheaper if ISRO plays its cards right. Crude oil prices are in a slump, components lying in wait in factories, and any future orders could come at a bargain.

Coronavirus could play in ISRO's favour

India's GISAT-1 satellite launch was delayed right before the lockdown due to 'technical reasons' and the ISRO has been mum so far about the launch of Aditya L1, which was pegged to take off in April.

ISRO Chairman K. Sivan told The Week that like the rest of the country, the space agency is also under lockdown and there isn't much they can do until it's lifted.

While the space agency works on its contingency plans, there are a few factors that could play in its favour Gateway House fellow Chaitanya Giri told Business Insider.

The demand for crude oil, for instance, has taken a hit and taken the prices down with it. Brent crude, which India consumes is expected to decline even further as Lockdown 3.0 comes into play. According to CRISIL, it may settle at around \$25 to \$30 in the coming quarter. Any uptake of prices in the second half will only be marginal.

While this may be bad news for the crude oil industry, it could be good news for ISRO's consumption requirements, said Giri.

However, the space agency's trump card may be the inventory currently stockpiling with manufacturers. There are over 100 manufacturing units, both big and small, which cater to ISRO's missions in the private sector. Right now, all of them are shut.

And, manufacturing for ISRO is a mammoth task with rockets, satellites and scientific instruments. But, the same rules apply. Demand is in a slump, which means prices will dip as well.

The orders that have already been placed, the commitments that have already been made or the prices which have already been sealed won't be affected. But, any new plans in works, will have an advantage at hand.

“If ISRO needs some components from the industry, the industry may sell it at cheaper prices than previously,” Giri told Business Insider.

So while the country may have to wait a little bit longer to see India land on the Moon or have its astronauts in space — the lockdown may be a boon rather than a bane for the Indian space agency.

<https://www.businessinsider.in/science/space/news/isro-may-quietly-gain-a-cost-advantage-despite-the-delay-in-gaganyaan-and-chandrayaan-3-says-an-expert/articleshow/75546034.cms>



Tue, 05 May 2020

Chandrayaan-3, Indian Lunar mission delayed or indefinitely postponed?

The launch date of Chandrayaan-3, India’s ambitious mission to complete the nation’s first lunar landing is likely to be delayed due to COVID-19. The Indian Space Research Organization (ISRO) has also been shut since the nationwide lockdown which has directly impacted the Chandrayaan-3 program.

Undeterred by the crashing of Vikram moon lander in 2019, ISRO had announced earlier this year that it will launch Chandrayaan-3.

The latest lunar mission will reportedly cost 6.15 billion rupees, or about \$91.2 million at current exchange rates making it considerably less expensive than Chandrayaan-2, which was priced at 9.7 billion rupees (\$136.1 million). ISRO is planning for landing at the same location as the Chandrayaan-2 crash site.

The older mission (Chandrayaan-2) featured an orbiter as well as a lander and rover, which explains the higher price tag. Chandrayaan-3 doesn’t need an orbiter since the Chandrayaan-II orbiter remains in good condition and should continue to operate for years to come, ISRO officials have confirmed.

A successful Chandrayaan-3 soft landing on the surface of the moon will see India joining China, United States and Russia in the elite list of countries to have achieved this feat.

Chandrayaan-3 Launch Date Delayed?

However, due to the global pandemic, ISRO is facing a possible delay in its third lunar mission. K Sivan, ISRO Chairman, spoke about the impact COVID-19 has had on the organization in an interview last month.

He said that that all research and development and manufacturing were at a standstill, and only the work that is possible was either being done from home or via video calling.

Sivan also said the situation can only be fully assessed after the lockdown ends. “We cannot take any decision at this stage. We will have to wait for the lockdown to be lifted,” he said.

The lockdown is not the only reason for the possible delay of Chandrayaan-3. With the country pouring all available funds into dealing with the economic impact of the pandemic, there might be a reassessment of what is essential in the current scenario.

Experts speaking to the EurAsian Times believe that any costly expenditure in the near future that is not meant for public relief or boosting the economy will draw criticism from the public. Hence it would be in the best interest to put any current plans on hold which could also mean a possible deferment of the Chandrayaan-3 while suspension looks unlikely.

Apart from Chandrayaan-3, the outbreak has thrown ISRO’s other plans in a limbo too. The organization had also planned around 24 additional launches including Gaganyaan flight (in December 2020 and India’s first solar probe, Aditya in the summer.

Gaganyaan is an Indian crewed orbital spacecraft that aims to send 3 astronauts to space for a minimum of 7 days by 2022, as part of the Indian Human Spaceflight Programme.

Chandrayaan-3 – India's Second Attempt

Chandrayaan-3 will be India's second attempt to land on the moon. Last year India successfully launched Chandrayaan-2 from the Satish Dhawan Space Center in Sriharikota, aboard a Geosynchronous Satellite Launch Vehicle (GSLV) rocket.

The main objective was to circle the moon and provide information about its surface. Unfortunately, the Vikram moon lander crashed and lost contact with the scientists.

India refuses to see the crash of the Vikram moon lander as a failure and says it has a lot to learn from it. Prime Minister Narendra Modi told his country's space scientists he was proud of a programme that had come so near to putting a probe on the Moon. The best is yet to come in our space programme. India is with you," he said.

Similar views were shared by Union Minister Jitendra Singh, as reported by the EurAsian Times earlier, who felt it was wrong to term Chandrayaan-2 as a disappointment since it was India's first attempt to land on the lunar surface and no country was successful in their first attempt.

India's reignited interest in space under PM Modi stems from China's increasing extraterrestrial capabilities besides the economic revenues it can bring with it. Space diplomacy is the way forward in international relations and India seems to be already on the right trajectory.

<https://www.defencenews.in/article/Chandrayaan-3,-Indian-Lunar-Mission-Delayed-Or-Indefinitely-Postponed-830446>

ScienceDaily®

Tue, 05 May 2020

How to put neurons into cages

Microscopically small cages can be produced at TU Wien (Vienna). Their grid openings are only a few micrometers in size, making them ideal for holding cells and allowing living tissue to grow in a very specific shape. This new field of research is called "Biofabrication."

In a collaboration with Stanford University, nerve cells have now been introduced into spherical cage structures using acoustic bioprinting technology, so that multicellular nerve tissue can develop there. It is even possible to create nerve connections between the different cages. To control the nerve cells, sound waves were used as acoustic tweezers.

Football Shaped Cages

"If you present living cells with a certain framework, you can strongly influence their behavior," explains Prof. Aleksandr Ovsianikov, head of the 3D-Printing and Biofabrication research group at the Institute for Materials Science and Materials Technology at TU Wien. "3D printing enables the high-precision production of scaffolding structures, which can then be colonized with cells to study how living tissue grows and how it reacts."

In order to grow large numbers of nerve cells in a small space, the research team decided to use so-called "buckyballs" -- geometric shapes made of pentagons and hexagons that resemble a microscopic football.

"The openings of the buckyballs are large enough to allow cells to migrate into the cage, but when the cells coalesce, they can no longer leave the cage," explains Dr. Wolfgang Steiger, who worked on high-precision 3D printing for biofabrication applications as part of his dissertation.

The tiny buckyball cages were manufactured using a process known as two-photon polymerization: a focused laser beam is used to start a chemical process at specific points in a liquid, which causes the material to harden at precisely these points. By steering the focal point of the laser beam through the liquid in a well-controlled way, three-dimensional objects can be produced with extremely high precision.

Acoustic Waves as Tweezers

Not only creating the buckyballs, but also assembling cells into these balls through microscale openings is very challenging. An innovative 3-D acoustic bioprinting technology developed at the Stanford School of Medicine, successfully addressed this challenge. Prof. Utkan Demirci co-directs the Canary Center at Stanford for Early Cancer Detection and his research group, i.e., the Biosensing and Acoustic MEMS in Medicine (BAMM Lab) uses acoustic waves in biomedical applications from sensing cancer biomarkers to bioprinting 3-D tissue models to sensing.

"We generate acoustic oscillations in the solution in which the cells are located. The cells follow the sound waves like rats follow the Pied Piper of Hamelin as in the legend. In the process, nodes of oscillation form at certain points -- similar to a vibrating string," says Prof. Demirci. At these nodal points, the liquid is comparatively static. If cells are located at these points, they remain there; everywhere else they are moved away by the acoustic wave. The cells therefore move to the spots where they are not whirled around -- and that is where the buckyballs were placed. The sound wave can thus be used in a very well-controlled way, almost like tweezers, to direct the cells to the desired location.

"The acoustic waves enabled us to fill the scaffold structures much more densely and efficiently than would have been possible with conventional methods of cell colonization," reports Tanchen Ren, PhD, from Prof. Demirci's research group.

Once the buckyballs had been successfully colonized with nerve cells in this way, they formed connections with neurons of neighboring buckyballs. "We see enormous potential here for using 3D printing to create and study neural networks in a targeted manner," says Aleksandr Ovsianikov. "In this way, important biological questions can be investigated to which one would otherwise have no direct experimental access."

Story Source:

[Materials](#) provided by [Vienna University of Technology](#). *Note: Content may be edited for style and length.*

Journal Reference:

1. Tanchen Ren, Wolfgang Steiger, Pu Chen, Aleksandr Ovsianikov, Utkan Demirci. **Enhancing cell packing in buckyballs by acoustofluidic activation.** *Biofabrication*, 2020; 12 (2): 025033 DOI: [10.1088/1758-5090/ab76d9](https://doi.org/10.1088/1758-5090/ab76d9)
<https://www.sciencedaily.com/releases/2020/05/200504114110.htm>

physicsworld 50 वर्ष

Tue, 05 May 2020

Diamond nanothreads could beat batteries for energy storage, theoretical study suggests

By Anna Demming

Computational and theoretical studies of diamond-like carbon nanothreads suggest that they could provide an alternative to batteries by storing energy in a strained mechanical system. The team behind the research says that nanothread devices could power electronics and help with the shift towards renewable sources of energy.

The traditional go-to device for energy storage is the electrochemical battery, which predates even the widespread use of electricity. Despite centuries of technological progress and near ubiquitous use, batteries remain prone to the same inefficiencies and hazards as any device based on chemical reactions – sluggish reactions in the cold, the danger of explosion in the heat and the risk of toxic chemical leakages.

Another way of storing energy is to strain a material that then releases energy as it returns to its unstrained state. The strain could be linear like stretching and then launching a rubber band from your finger; or twisted, like a wind-up clock or toy. Over a decade ago, theoretical work done by researchers at the Massachusetts Institute of Technology suggested that strained chords made from carbon nanotubes could achieve impressive energy-storage densities, on account of the material's unique mechanical properties.

Outperforms Carbon Nanotubes

Now, a new theoretical study by a team including Haifei Zhan, Gang Zhang and Yuantong Gu at Queensland University of Technology in Australia and the Agency for Science, Technology and Research (A*STAR) in Singapore reveals there may be circumstances in which bundles of carbon nanothreads outperform carbon nanotube bundles in terms of energy storage.

“We expected a good mechanical energy storage capability [for carbon nanothreads],” says Zhang of their results. “But surprisingly we found its energy density can be up to three times the lithium-ion battery in theory.”

First described in 2015, nanothreads joined a catalogue of carbon nanomaterials that have emerged over the past four decades. Nanothreads are 1D structures with carbon atoms linked by single bonds (like those in diamond) to three other carbon atoms and a hydrogen atom. Where the hydrogen atom is missing, the carbon atom may bond to a fourth carbon atom in an adjacent thread. This bonding contrasts with the hexagonal carbon lattices found in buckyballs, carbon nanotubes and graphene. In these materials, electron orbitals from each carbon atom are shared between just three other carbon atoms.

Space Elevator

Since 2015 studies have revealed several ways that carbon atoms can arrange themselves in a 1D carbon nanothread structure. Furthermore, several threads can be bundled together to create a chord with mechanical properties that are comparable to carbon nanotube bundles — which are so strong it was once proposed they could tether extraterrestrial objects from Earth to create a “space elevator”.

“The excellent mechanical properties of fibres of carbon nanothreads make them appealing alternative building blocks for energy storage devices, to power advanced microdevices and systems,” explains Zhang.

The team used molecular dynamics simulations and theory to compare the maximum energy stored under tension, torsion and bending for a specific type of carbon nanotube bundle and two nanothread bundle conformations – one straight and one helical.

Armchair nanotubes

Carbon nanotubes come in different widths and chiralities – the angle the carbon sheet is rolled along with respect to the honeycomb lattice. All these variations affect the nanotube's properties. The team made its comparison using (10,10) “armchair” carbon nanotubes. These nanotubes are rolled perpendicular to the lattice lines giving half hexagon shapes ten carbon atoms long at the end of the tube. These are wide for carbon nanotubes, but they are also among the most commonly synthesized.

The research identified several drawbacks of using carbon nanotubes for energy storage – and several advantages of using carbon nanothreads. One problem with nanotubes is that they are prone to flatten when twisted or bent, which reduces the energy they can store under strain. In contrast, nanothreads retain their atomic conformation under strain. While individual carbon nanotubes have better properties for energy storage than single nanothreads, this advantage is not maintained when nanotubes are bundled. In contrast, bonds that can form between nanothreads where a hydrogen is missing make them better team players, so that a bundle with 19 nanothreads achieves 2.5 times the energy storage density of a bundle with three threads.

Another drawback of carbon nanotubes is that bundles can only sustain about a third of the torsion of a single nanotube, resulting in less favourable energy storage density in comparison with nanothreads.

“Carbon nanothread bundles could be made into twist-spun yarn-based artificial muscles that respond to electrical, chemical or photonic excitations,” suggest Zhang. “They could be a potential micro-scale power supply for anything from implanted biomedical sensing systems monitoring heart and brain functions, to small robotics and electronics.”

In pursuit of experimental validation of their results, the researchers are now working with scientists from Penn State University, where the world’s first Centre for Nanothread Chemistry has been established funded by the US National Science Foundation. The collaborative team itself plans to focus its efforts over the next few years building microscale power supply systems based on the results of their research.

The research is described in [Nature Communications](#).

<https://physicsworld.com/a/diamond-nanothreads-could-beat-batteries-for-energy-storage-theoretical-study-suggests/>

COVID-19 Research

hindustantimes

Tue, 05 May 2020

India a step closer to making key drug to treat Covid-19

India is part of the World Health Organisation’s Solidarity Trials for the cure of Covid-19 and has received 1000 doses of the drug for testing

By Jayashree Nandi

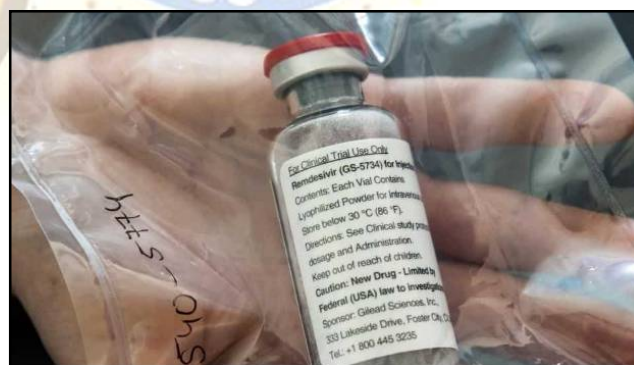
New Delhi: The Hyderabad based Indian Institute of Chemical Technology (CSIR-IICT) has synthesised the key starting materials (KSMs) for Remdesivir, the first step to develop the active pharmaceutical ingredient in a drug.

IICT has also begun so-called technology demonstrations for drug manufacturers such as Cipla so that manufacturing can begin in India, if needed. Remdesivir, manufactured by Gilead Sciences, is the first drug to treat Covid-19 approved for emergency use in the US based on clinical data.

Gilead Sciences has a patent on the drug but patent laws allow for the drug to be developed solely for research purposes and not for commercial manufacturing. Remdesivir, when administered by an intravenous infusion helped patients recover on an average in 11 days, compared to 15 days taken by those on placebo according to US clinical trial results.

India is part of the World Health Organisation’s Solidarity Trials for the cure of Covid-19 and has received 1000 doses of the drug for testing.

Harsh Vardhan, science and technology and health minister said in a statement on Monday that synthesis of KSMs has been achieved by CSIR-IICT and that technology demonstrations to Indian industry are happening. For Favipiravir, another promising drug to treat Covid19, CSIR is working with the private sector for clinical trials and a possible launch in India.



Remdesivir, manufactured by Gilead Sciences, is the first drug to treat Covid-19 approved for emergency use in the US based on clinical data . (AFP File Photo)

Remdesivir has three KSMs, Pyrrole, Furan and a Phosphate intermediate. Dr Srivari Chandrasekhar, director of IICT said over phone from Hyderabad that synthesis of KSMs is an important stage in drug development.

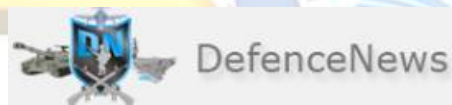
“The synthesis of key starting materials (KSM) for any drug is the first step to develop an active pharmaceutical ingredient (API). These key starting materials for Remdesivir are available in India and chemical companies can manufacture these. Other reagents can be sourced from other countries. We started working on KSM for Remdesivir in January end, when trials had begun in China,” he said.

Gilead Sciences CEO, Daniel O’ Day in an open letter on April 29 said: “On the supply side, we are working to build a global consortium of pharmaceutical and chemical manufacturers to expand global capacity and production. It will be essential for countries to work together to create enough supply for people all over the world and we look forward to these collaborative efforts.”

Experts said the Indian government could request Gilead Sciences for grant of voluntary licenses to Indian private companies for a royalty. If not, India could use the compulsory licence option, under which it, or a generics manufacturer can manufacture patented drugs so as to protect the health of its citizens. The patent holder, however, gets paid for this.

“Because it is a patented drug, there are two options. One is that manufacturers obtain permission from the patent holder for a license to manufacture. The other option is that the Indian government allows two to three manufacturers to manufacture the drug on a compulsory license or a government use license. The manufacturers will need regulatory clearances which will be available only when more clinical data is available on the efficacy of the drug,” said KM Gopakumar, an intellectual property rights expert.

<https://www.hindustantimes.com/india-news/india-a-step-closer-to-making-key-drug/story-mVleP51rCdJUPQgU2UiCLK.html>



Tue, 05 May 2020

China praises India’s ability to mass produce the Covid-19 vaccine

China has hailed India’s ability to mass-produce the COVID-19 vaccine developed by the University of Oxford. “India is highly competitive and carries great potential by many measures,” writes Chinese state-run media, Global Times.

GT has particularly acknowledged the Serum Institute of India (SII), which expects to be ready with a vaccine against the novel coronavirus (COVID-19) by early 2022. “We aim to manufacture 4-5 million doses per month, following which we aim to scale up production to 10 million doses a month, based on the success of the trials,” says Adar Poonawalla, chief executive officer of SII.



Poonawalla also stated that the price of the vaccine will be kept “affordable”. He further told the Indian Express that SII has partnered with Mylab to expand the production of COVID-19 testing kits, taking it from 1.5 lakh units per week to 20 lakh units per week.

GT’s admiration for India has come at a time when the Chinese government has been critical of India’s trade policies which were recently amended to protect Indian corporates from a hostile takeover by its neighbouring countries.

The Indian Council of Medical Research (ICMR) has also accused Chinese manufacturers of supplying faulty testing kits after huge variations in the accuracy of results were noticed across regions. The test kit manufacturer Guangzhou Wondfo Biotech has denied these allegations.

Global Covid-19 infections have hit nearly three million with more than 206,000 deaths. India's vaccine market looks particularly attractive due to high production capabilities and low prices.

India is one of the world's major manufacturers of generic drugs and vaccines and is known for its strengths in scientific research and medicine development.

"India's advantages in vaccine development and production mean it can at least rely on itself to meet the huge domestic demand, which cannot be met by any other country in the world in the short term," says GT. If the human trials for the vaccine are successful, India will be a self-reliant nation to meet its vaccine demand.

<https://www.defencenews.in/article/China-Praises-India%e2%80%99s-Ability-To-Mass-Produce-the-COVID-19-Vaccine-830444>

