

## عنوان مقاله:

The Effect of UV Waves on Coronavirus and Disinfection of Hospital and Non-Hospital Surfaces

## محل انتشار:

کنفرانس بین المللی بیو فوتونیک و اپتیک زیست پزشکی (سال: 1400)

تعداد صفحات اصل مقاله: 5

## نویسندگان:

M Khalaji - Department of Psychiatric Nursing, Aja University of Medical Sciences, Tehran, Iran

M Ahmadi - Student Research Committee, faculty of Nursing, Aja University of Medical Sciences, Tehran, Iran

## خلاصه مقاله:

Introduction: Corona Pandemic has affected the world's condition from different dimensions, and all countries are trying to combat the disease by applying different methods. An interdisciplinary research is one of the methods used to combat this disease. In this regard, researchers decided to use equipment to reduce microbial load and to eliminate the effect of the virus. One of these instruments was the use of UV waves in a reduction of microbial load or pathogenicity. The purpose of this paper is to review the effect of UV waves on the corona virus. Materials and methods: The search was conducted using the key words of UV, corona, disinfection covid-19 in Data bases such as PubMed, science direct, ISI from ۲۰۱۳ to ۲۰۲۱ and Out of ۹۱ articles, ۱۵ were selected and analyzed. Findings: Studies have shown that UV rays affect viruses. Attempts to control the corona virus using UV waves were first made in China. In this method, UV waves inactivate viruses by affecting nucleic acids and breaking the RNA structure. So that it can be disinfected. Studies have shown that the best effect of UV wave on the corona virus is on the wavelength of ۲۵۰ - ۳۰۰ nm, Outside of this wavelength, a longer time must be chosen for disinfection. Discussion and conclusions: Due to the effect of UV waves on the corona virus, this method can be used to disinfect treatment spaces and wherever the virus load is likely to be high It was also used to disinfect industrial tools and electronic equipment that could not be disinfected with common solutions such as alcohol. Another advantage of this method is the reduction of the use of disinfectant solutions and the reduction of skin, pulmonary and all kinds of allergies caused by its consumption. It should be noted that one of the limitations of disinfection using UV waves is the cost and manufacturing technology of manufacturing devices. Therefore, more studies are needed on the advantages and disadvantages, the effect rate and the cost / effectiveness ratio of using UV waves in the fight against coronavirus.

## کلمات کلیدی:

UV, corona, covid\_19, disinfection

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1378023>

