

Can UV light help tackle the coronavirus?

Education in Chemistry

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Learn about the science behind the bug-busting powers of UV light

Read the article and answer the following questions:

1. Where does UV light sit in the electromagnetic spectrum?

Between visible light and X-rays.

2. Why are we not constantly exposed to UVC light?

The ozone layer absorbs UVC light so it does not get through our atmosphere.

3. How does UVC stop viruses and bacteria from reproducing?

The DNA and RNA absorb the UV radiation and break down.

4. Give 2 examples of the use of UVC disinfection.

Any of the following:

- Disinfecting surfaces in microbiology laboratories
- Treating drinking water
- Zapping processed foods on production lines before packaging

5. How do coronavirus particles spread from person to person?

They spread via droplets in the air, either breathed in by others, or transfer from an infected surface to the eyes, mouth or nose of another person.

6. Give a safety feature of the UV robots.

They cut out if someone enters a room during UV disinfection.

7. Why should the public not buy handheld UV lamps?

Handheld lamps often lack safeguards to protect the user.

8. Why is the proposal to use UVC to disinfect medical face masks and other medical PPE in short supply causing concern?

Microorganisms are only inactivated if the light directly hits them. Virus particles hidden in the depths of 3D structures will get missed.