

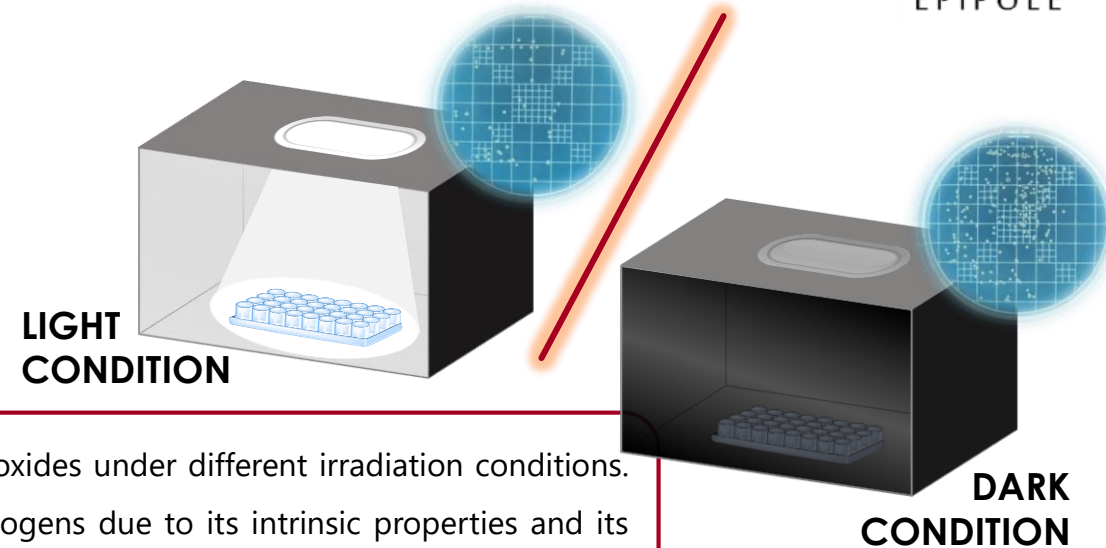
# COPPER-BASED FILMS WITH ANTIBACTERIAL AND ANTIVIRAL ACTIVITY FOR SELF-STERILIZING COATINGS

## THE CONTEXT

The SARS-CoV-2 outbreak knocked down the worldwide current measures to combat and mitigate viruses. Therefore, surface coatings with intrinsic biocide materials have become an object of study on a global scale.

## THE PURPOSE

The aim of our work is to study the antibacterial and antiviral activity of copper and copper oxides under different irradiation conditions. These materials have already proved its antibacterial and antiviral effect against several pathogens due to its intrinsic properties and its photodynamic capabilities for reactive oxygen species (ROS) generation. However, its inactivation mechanisms are not fully elucidated.



## THE GOAL

The study of copper-based self-sterilizing coatings. Its implantation would not only combat SARS-CoV-2, but any infection that can be contracted by touching surfaces with viral and bacterial loads and, when applied in healthcare settings, a thriving and lasting measure to combat hospital infections.

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