

# New fabrics with antiviral properties

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Brazilian textile companies have begun producing and marketing fabrics treated with silver and silica nanoparticles developed by the research groups at the Center for Functional Materials (CDMF) and the Theoretical and Computational Chemistry Laboratory (QTC) at the Universitat Jaume I, in collaboration with the company Nanox

Tecnologia, which provide the new fabrics with antibacterial, antifungal and antiviral properties with 99.99% effectiveness.

The research team has published a study titled "Ag nanoparticles-based antimicrobial polycotton fabrics to prevent the transmission and spread of SARS-CoV-2," in which they demonstrate that the use of an aqueous solution of [silver](#) nanoparticles mixed with an acrylic-based binder in poly-cotton fabrics is effective as an antimicrobial and has a high durability in relation to washing cycles.

Tests have shown that the [fabric](#) is effective in inhibiting the SARS-CoV-2 virus, and the pathogens Staphylococcus aureus, Escherichia coli and Candida albicans. Another of the differential characteristics of these fabrics is the prevention of cross infections caused by pathogens, such as bacteria and opportunistic fungi, responsible for the worsening of COVID-19 and other types of virus.

**More information:** Guilherme C. Tremiliosi et al. Ag nanoparticles-based antimicrobial polycotton fabrics to prevent the transmission and spread of SARS-CoV-2, (2020). [DOI: 10.1101/2020.06.26.152520](https://doi.org/10.1101/2020.06.26.152520)  
[www.biorxiv.org/content/10.1101/2020.06.26.152520v1](https://www.biorxiv.org/content/10.1101/2020.06.26.152520v1)

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