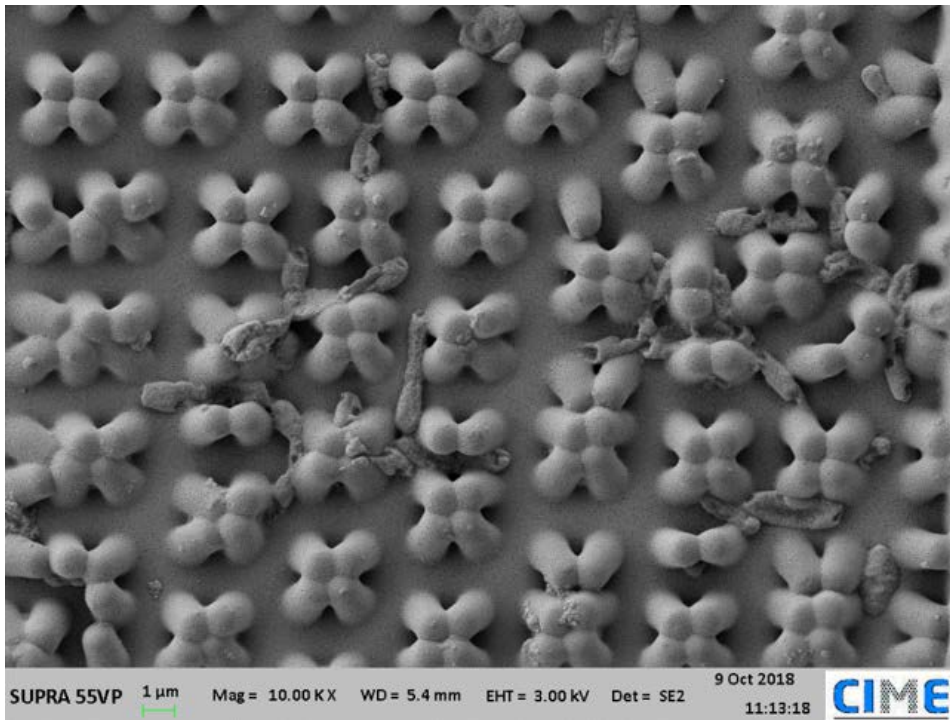


# Nanopatterned antimicrobial surfaces



Example of a nanosurface: exposed bacterial cells are flattened and wrinkled losing their cellular integrity, and displaying perturbed bacteria membrane morphologies

Ref. Nr

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Keywords

Anti-bacterial/microbial surfaces, medical devices, catheters

Intellectual Property

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Publications

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## Description

Current strategies for AntiMicrobial Coatings (AMCs) rely on chemical strategies and technologies which all have drawbacks such as for example promoting antibiotic resistance or antibiotic release rates that limits the effectiveness of the antimicrobial action.

The technology is an antimicrobial surface that relies on a unique nanotopography/nanopattern approach that induces mechanical rupture of bacteria.

## Advantages

- Generic Anti-bacterial effect(both Gram positive and negative).
- No toxicity

## Applications

- Medical devices (endotracheal tube, an intrauterine device, replacement heart valve, a transient or percutaneous pacemaker, catheters, a ventricular lead, a cerebrospinal fluid shunt,nasogastric tube, joint prostheses
- Applicable to many different surfaces, from soft plastics to hard surfaces

## Offering

Licensing and/or collaboration