BioSpect
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

IISc researchers use aluminium metal to kill bacteria

11 December 2017 | News

The researchers feel that now hospital-acquired infections can be reduced by using the etched aluminium surfaces.



A team of researchers at the Indian Institute of Science (IISc), Bengaluru used etched aluminium to kill both drug-sensitive and drug-resistant bacteria and also prevent bacteria from attaching and growing on the surfaces.

The researchers used sodium hydroxide and potassium hydroxide of different concentrations to etch the aluminium alloy for different time periods, and were able to keep the surfaces nearly free of Gram-negative bacteria.

Bacterial isolates of *E. coli* and *S. aureus* were used for the antibacterial studies. Though only fewer spherical-shaped *S. aureus* were killed by surface topography, there was significant reduction of the bacteria on the surface. There was one-third reduction in *S. aureus* adhering on the surface that had only micro-features, and one-tenth reduction on surfaces had both nano and micro-features.

The researchers feel that now hospital-acquired infections can be reduced by using the etched aluminium surfaces in ICUs, operation theatres and other places as well as by using them on regularly used objects such as taps, bedside tables, hand rails to name a few where transmission of bacterial infections is high.