

Poster 5

Assessment and development of antimicrobial coated steels for indoor use



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ABSTRACT:

Steel is one of the most common materials in the world and can be used as a substrate for antimicrobial coatings. A combination of the COVID-19 pandemic and rise in healthcare associated infections has resulted in a heightened interest into infection prevention control measures. Studies have shown a link between contaminated surfaces and infection transmission rates, with some bacteria surviving for months at a time. Antimicrobial coatings have shown to reduce microbial transmission.

Infection prevention has led to research into antimicrobial alternatives, such as metals like copper and bismuth. These antimicrobial metals could then be embedded into coated steels. Metals in different forms were assessed using various techniques. Initial findings have confirmed the antimicrobial activity of various forms of metal such as copper acetate and silver. Colloidal silver however has shown no effects within this project. These findings provide an insight into the future research direction for antimicrobial coated steels.



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