

Quellen & Nachweisverzeichnis zur antiviralen, antibakteriellen und antifungiziden Wirksamkeit von Kupfer

¹ Metallic Copper as an Antimicrobial Surface

„The antimicrobial properties of copper surfaces have now been firmly established. Hospital trials have shown a reduction in bacterial counts, indicating that copper surfaces are a promising additional tool alongside other hygienic measures to curb the number and severity of hospital-acquired infections.“

Quelle 1.1: Applied and Environmental Microbiology of American Society for Microbiology (ASM)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3067274/>

¹ Inactivation of Norovirus on Dry Copper Alloy Surfaces

„There is now a considerable body of evidence from laboratory based studies that copper alloys are efficacious against a diverse range of pathogenic microorganisms. Earlier studies demonstrated a rapid kill of Escherichia coli O157, Listeria monocytogenes and methicillin-resistant Staphylococcus aureus (MRSA)“

Quelle 1.2: PLoS ONE by Public Library of Science

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3767632/>

¹ Inactivation of Influenza A Virus on Copper versus Stainless Steel Surfaces

„Influenza A virus particles (2×10^6) were inoculated onto copper or stainless steel and incubated at 22°C at 50 to 60% relative humidity. Infectivity of survivors was determined by utilizing a defined monolayer with fluorescent microscopy analysis. After incubation for 24 h on stainless steel, 500,000 virus particles were still infectious. After incubation for 6 h on copper, only 500 particles were active.“

Quelle 1.3: American Society for Microbiology (ASM)

<https://aem.asm.org/content/73/8/2748>

² Prüfbericht Labororien Dr. Döring 25. März 2020, Vergleich Shieldex Kiel vs. metallisches Vollkupfer

„Es hat sich gezeigt, dass durch den einzigartigen Metallisierungsprozess die Shieldex® Kiel-Eluate im Durchschnitt eine 7-fach höhere Konzentration an Kupferionen freigesetzt haben als die Kupferblech Eluate“

Quelle 2: Labororien Dr. Döring im Auftrag der Firma Statex Produktions- und Vertriebs GmbH

<https://statex.de/pruefbericht-kupferionenfreisetzung-20200326/>

³ Kupfer gegen Keime: Asklepios Klinikum Harburg sorgt für mehr Patientensicherheit

„Das Projekt ist das bislang größte seiner Art in Europa und den USA. Kupfer wirkt nachweislich antimikrobiell und kann gefährliche Keime wie Bakterien, Pilze und Viren erheblich reduzieren.“

Quelle 3: Asklepios Klinikum Harburg

<https://www.asklepios.com/presse/presse-mitteilungen/konzernmeldungen/kupfer-gegen-keime~ref=4ab1380b-6900-416e-89ee-cb6c64f61cab~>

⁴ Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1

„SARS-CoV-2 was more stable on plastic and stainless steel than on copper and cardboard, and viable virus was detected up to 72 hours after application to these surfaces, although the virus titer was greatly reduced. The stability kinetics of SARS-CoV-1 were similar. On copper, no viable SARS-CoV-2 was measured after 4 hours and no viable SARS-CoV-1 was measured after 8 hours. On cardboard, no viable SARS-CoV-2 was measured after 24 hours and no viable SARS-CoV-1 was measured after 8 hours.“

Quelle 4: Letter by Dr. van Doremalen, Mr. Bushmaker & Mr. Morris – published, 17.03.2020 at NEJM.org

<https://www.nejm.org/doi/10.1056/NEJMc2004973>