



Contribution ID: 6 Contribution code: S12-PSSAP-204

Type: **Poster presentation (virtual)**

The Effectiveness of Germicidal UV-C LED on Different Microorganism

Wednesday, 31 August 2022 12:10 (2 minutes)

Recent occurrence of the pandemic revived the interest for germicidal ultraviolet (UV) lamps for disinfection. The use of the UV-C Light Emitting Diodes (LED) can deactivate microbes in air and water, but to achieve safe and successful disinfection of surfaces, careful and precisely defined usage is required that needs additional research. Commercially available UV-C LED lamp with the wavelength of 253,7 nm is used on two types of bacteria (one of them drug resistant) and one fungus.

The presented research results show that, in addition to the dependence of the efficacy on the time of exposure and surface distance from the lamp, the relative effectiveness of disinfection for the same conditions varies for the type of microbe. For E-coli it was between 72% and 90%, for Pseudomonas aeruginosa between 81% and 97%, while for the Candia albicans it went from 93% to 98%.

Primary author: Prof. SOFTIC, Amela (University of Tuzla, Physics Department)

Co-author: Dr HUSEJNAGIC, Darja (University of Tuzla, Biology Department)

Presenter: Prof. SOFTIC, Amela (University of Tuzla, Physics Department)

Session Classification: Poster session (virtual)

Track Classification: Scientific Sections: S12 Physics of Socioeconomic Systems and Applied Physics