

**STERILIZATION OF PACKED MATTER BY MEANS
OF LOW TEMPERATURE ATMOSPHERIC
PRESSURE PLASMAS**

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The decontamination of material in closed containers by means of atmospheric pressure plasmas is investigated. The target is *Listeria monocytogenes*, a bacterium which causes listeriosis and can be found in plants and food. The non-pathogenic species, *Listeria innocua*, is used for these experiments. Microscopy glass slides were inoculated with *Listeria innocua* by spraying. The slides were placed in a plastic bag. The plastic bag was filled with a gas mixture of 97.5% Ar + 2.5% O₂ and sealed. The sealed bag was placed between the electrodes of a dielectric barrier discharge. The exposure time was varied between 1 and 30 min. A reduction of *Listeria innocua* of more than log 2.4 (detection limit) was obtained after a treatment time of 2min. The electrode temperature of the DBD was found to be below 30 °C.