

STERILISATION BY ECR PLASMA

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Microwave plasma was built to produce plasma in axial direction. Plasma was initiated in a Plaxy Glass made vacuum tube by 2.45GHz commercial magnetron and meanwhile system was driven by 14 Amperes DC current passing through 16cm inner diameter toroid.

Measurements with a Longmuir probe and ICCD for optical spectrometry were used to characterize internal parameters like electron density, electron temperature and different properties of the heavy particles. This study presents the effect of system on used bacteria. Those are gram positive and gram negative bacteria that refers to structure of cell wall. The sterilization efficacy of Microwave plasma was found to be over 99, 5 % in Staphylococcus aureus, Staphylococcus epidermidis, Bacillus subtilis (vegetative cell), Bacillus cereus (vegetative cell), Klebsiella pneumonia and Escherichia coli