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Prevention of *P. fluorescens* adhesion to surfaces using bacteriophage Φ S1

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The presence of biofilms in industrial settings is problematic as bacteria are responsible for several economical losses including product spoilage. Biofilms are difficult to eradicate and their removal and destruction has been for long attempted using chemical biocides. These agents usually yield very low biofilm removal amounts, have negative environmental impacts and the emergence of biocide-resistant bacteria represents one of the major drawback of their use. Therefore there is an increasing interest in the utilization of bacteriophages (phages). Phages are specific for a bacterial host or a range of hosts, active against biocide-resistant bacteria and considered environmentally innocuous. This work focuses on the use of bacteriophage Φ S1 to prevent *P. fluorescens* biofilm formation. Glass and stainless steel surfaces were coated with suspensions of 10^9 PFU/ml prior to bacterial adhesion tests. The results obtained showed, that *P. fluorescens* were no longer able to adhere to these surfaces. Moreover, after several washings of the surface the remaining attached phages (about 10^3 PFU/ml) were still able to prevent biofilm formation on the surfaces.