

Kinetic Study of Bacterial Adhesion on Biomaterials by Using Optical
Waveguide Lightmode Spectroscopy

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Abstract

The principles of bacterial identification are beginning to be understood at the kinetic level in the past few years, nevertheless, the crucial aspects to be taken into consideration are the spatial arrangements of molecules or atoms at the interacting surfaces and the profiles of the interfacial forces. In this study, the dynamics of attachment and detachment of E.coli K12 to ultra thin film silica and zirconia surfaces with precisely coated by sol-gel method is measured by using optical waveguide lightmode spectroscopy (OWLS) are described.

Keyword : bacterial adhesion, kinetic, optical waveguide lightmode spectroscopy