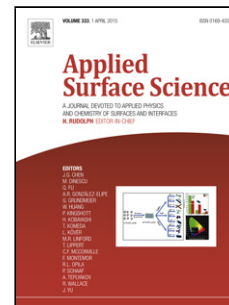


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## Plasma-treated Polystyrene Film that Enhances Binding Efficiency for Sensitive and Label-free Protein Biosensing

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### Abstract

A plasma-treated ultrathin polystyrene (PS) film surface was explored as a simple, robust and low-cost surface chemistry solution for protein biosensing applications. This surface could dramatically improve the binding efficiency of the protein-protein interactions, which is defined as the binding signal per immobilized ligand. The PS-modified protein biosensor was readily fabricated by spin-coating and plasma treatment. Various parameters for fabrication, including the concentration of the PS solution, rate of spin-coating and duration of plasma treatment, were systematically

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