



Characterization and Performance of Commercial Localized Surface Plasmon Resonance Chips

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ABSTRACT

We present a commercial platform for both label-free and labeled bioanalysis based on Localized Surface Plasmon Resonance. The platform relies on mass-produced nanostructured thin films with robust and reproducible plasmon resonances. The physical properties of these films (reproducibility, optical properties) as well as their stability, noise level, and intrinsic detection limits will be discussed. Also, we will illustrate the performance and strength of the platform in real-life assays. We will show how the sensitivity barrier can be lowered from the ng/mL range to the pg/mL range using the very same chip and different implementations. The examples will demonstrate how rich, fast, simple and reliable the platform is.