

My Story on Surface Plasmon Resonance Development

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Abstract

The detection of biomolecular species such as pathogen antigens or disease markers from patient samples is an important area to improve the well-being of humankind. Until now, optical signal transduction techniques such as fluorescence and surface plasmon resonance (SPR) are playing major roles in detecting biomolecular interactions. For SPR, it is extremely sensitive to variations in optical properties at the interface between metal and dielectric layer. It can be used as refractive index probe to monitor a real-time interaction between an analyte in solution and its specific partner immobilized on the metal surface without the use of labels. In this 15-min presentation, I will review how a SPR biosensor was developed by using phase change through a joint force between science and engineering.

Biography of Speaker

SK Kong received his PhD degree from CUHK in 1989 and joined the Department of Biochemistry, CUHK in 1991. He teaches immunology and analytical biochemistry. His main research focus involves cancer biochemistry, red blood cells differentiation and biosensor development.