Fiber Optic SPR Sensing Principle

In this article, the development and advancement of FO-SPR sensor were reviewed. And the principle and performance of multiple SPR techniques based on optical fiber for sensing ...

This review compares the two most common configurations of SPR sensors: fiber-based and prism-based SPR sensors. This comprehensive review covers various sensor configurations, geometric ...

In this work, for the first time, the application of Principal Component Analysis (PCA) to process Surface Plasmon Resonance (SPR) spectra is proposed to effectively overcome these ...

After covering the basic details of the working principle, coupling configuration, detection scheme, and various design parameters, the application of surface plasmon resonance is discussed ...

In this review article, we present the principle of SPR technique for sensing and various designs of the fiber optic SPR probe reported for the enhancement of the sensitivity of the sensor.

This chapter first introduces the key technology for fabricating fiber optic SPR sensor, then introduces the influence of metal oxide film on the sensing performance of fiber optic SPR sensors, and finally ...

The principles of fiber-optic SPR sensors and the recent research of fiber-optic localized SPR (LSPR) sensors are included. Moreover, the key research techniques using nanomaterials for fiber-optic ...

In this review article, we present the principle of SPR technique for sensing and various designs of the fiber optic SPR probe reported for the ...

This paper reports on the past, present, and future scope of fiber-optic SPR sensors in the field of sensing of different chemical, physical, and ...

The sensing principles of optical fiber-based SPR sensors are introduced, and different optical fiber-based SPR biosensors are described. Finally, the present challenges and prospects are discussed.

The principles of fiber-optic SPR sensors and the recent research of fiber-optic localized SPR (LSPR) sensors are included. Moreover, the key research ...

This paper reports on the past, present, and future scope of fiber-optic SPR sensors in the field of sensing of different chemical, physical, and biochemical parameters. A detailed ...

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