Application of functionalized AAO(Anoide Aluminum Oxide) biochip to the interferometric sensing

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Over the past three decades, development of high-sensitivity biosensors have been hot issues in medicine, environmental diagnostics, the food and drink industries. Biosensors employ biochemical molecular recognition properties as the basis for a selective analysis, The major processes involved in any biosensor system are analyte recognition, signal transduction and readout.

AAO(Anoide Aluminum Oxide) has been used as carbon nanotube, metal nanodot, metal nanowire and so forth. Structural characteristics and growth kinetics of anodic oxide films on aluminium are determined by the forming conditions under which they are formed; electrolyte type, electrolyte concentration, electrolyte temperature, voltage, and anodixing time.

Application of the interferometric biochip has been done in this study by using the functionalized AAO in order to overcome the non-uniformity in pore-size distribution of the wet etched silicon surface.