

## **ABIOTIC BIOSENSORS**

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Biosensors have been used as analytical tool in clinical, environmental, biological and chemical field; however the stability of the biological active components usually employed as the recognizer element is of the key problems that still remain unsolved. Many efforts have been done to develop biosensors with stability to be easily commercialized. One of the alternatives attempted by several researches groups is the use of supramolecular chemistry combined with the engineering of the structured surfaces to obtain devices with the same selectivity and sensitivity of the enzymes and antibodies, but with much higher stability. In this sense some chemical compounds that are stable and present selectivity in theirs reactivity are being employed to develop devices classified as abiotic biosensors. Based on these aspects some examples of the preparation of molecularly imprinted polymers and structured surfaces to mimic an enzyme or antibody will be discussed. The use of a template to get molecular imprinted polymers presenting high selectivity like an antibody as well as the combination with a catalyst similar to a cofactor to mimic an enzyme will be shown. The preparation of self-assembled monolayers on electrode surfaces to proportionate the immobilization of supramolecular structures like cyclodextrins will be also presented.

**Key words:** Biosensors, Molecularly imprinted polymers, Cyclodextrins SAM  
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