

Molecularly imprinted polymers for biomimetic sensors

Abstract

The first chapter of the thesis is structured in two parts. In the first part, a literature study is presented, referring to molecularly imprinted polymers (synthesis, characteristics, applications, etc.). In the second part, the aim and the objectives of the doctoral thesis are presented, but also the used concepts and methods.

The doctoral thesis was aimed at synthesizing and characterizing molecularly imprinted polymers films, with the end of being used for sensors development. Different synthesis methods have been studied, in order to choose the most convenient and efficient one. The synthesized films can be used for illicit drug detection (Ephedrine) and for bacteria detection (LPS from Gram- Negative bacteria – *Pseudomonas Aeruginosa*), respectively.

The second chapter of the thesis brings to the fore the original researches, aiming at result the exploiting the obtained scientific results. The third chapter sums up the general conclusions of the doctoral thesis. The fourth chapter underlines the original contributions of the doctoral thesis. The fifth chapter presents the scientific results published during the doctoral thesis preparation. The sixth chapter involves the bibliography.