DESCRIPTION

An essential guide that puts the focus on method developments and applications in aptamers

In recent years, aptamer-based systems have been developed for a wide-range of analytical and medical applications. Aptamers for Analytical Applications offers an introduction to the topic, outlines the common protocols for aptamer synthesis, as well as providing information on the different optimization strategies that can obtain higher affinities to target molecules. The contributors? noted experts on the topic? provide an in-depth review of the characterization of aptamer-target molecule interaction and immobilization strategies and discuss the developments of methods for all the relevant applications.

The book outlines different schemes to efficiently immobilize aptamers on substrates as well as summarizing the characterization methods for aptamer-ligand complexes. In addition, aptamer-based colorimetric, enzyme-linked, fluorescent, electrochemical, lateral flow and non-labeling analytical methods are presented. The book also reflects state-of-the-art and emerging applications of aptamer-based methods. This important resource:

- Provides a guide to aptamers which provide highly specific and sensitive molecular recognition, with affinities in the range of antibodies and are much cheaper to produce

- Offers a discussion of the analytical method developments and improvements with established systems and beyond

- Offers a comprehensive guide to all the relevant application areas
Presents an authoritative book from contributors who are noted experts in the field

Written for analytical chemists, biochemists, analytical researchers, Aptamers for Analytical Applications is a comprehensive book that adopts a methodological point of view to the important aspects of aptamer generation and modification with a strong emphasis on method developments for relevant applications.

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