JCET LECTURE

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Aptamers as specific recognition elements in analytics

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Aptamers are short, single-stranded nucleic acids (DNA or RNA) and can use as high specific recognition elements for a broad range of target molecules. Numerous aptamer properties, but particularly the reproducible production of aptamers including chemical modifications and the ability of refolding in an active binding form, enable the use of aptamers in many different analytical systems like biosensors or lateral flow assays. We have developed aptamer against different targets relevant by a multi-stage process including a semi-automatic in vitro selection procedure and an extensive monitoring system, which allows a fast, reproducible, and parallelised aptamer selection coupled with a high success rate.

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