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A Magnetic Separation Fluorescent Aptasensor for Highly Sensitive Detection of Bisphenol A

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Highlights:

1. The fluorescent approach that involves in the magnetic nanometer materials have been used for the detection of BPA.
2. Aptamer-based strategies have been used to efficiently provide a simplicity and rapidly aptasensor of BPA.
3. The aptasensor exhibits a liner range from 0 to 8.00 ng mL⁻¹ for BPA and a relatively low detection limit of 0.047 ng mL⁻¹ was obtained.

Abstract

Bisphenol A (BPA) is an environmental endocrine hormone that is commonly considered to cause endocrine disorders and even life-threatening. Herein, a magnetic separation fluorescent aptasensor for highly sensitive detection of BPA is proposed based on AHN-labeled aptamer and magnetic nanoparticles. The BPA aptamer can

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