Mini Review

Recent Advances and Future Prospects of Aptamer-based Biosensors in Food Safety Analysis

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The problem of environmental pollution and food security have brought global attention to food safety issues. Pollutant detection is one of the significant missions in the background of serious global environmental problems. Heavy metal ions, pesticides, biotoxins, and antibiotics on sites are in high demand in environmental analysis. As a simple, accurate, inexpensive, and selective detection method, aptamer-based biological sensors are very suitable for environmental detection and food safety analysis. This review principally summarizes the recent advances in the use of aptamer-based fluorescence sensors for food safety detection. This includes the detection of divalent metal ions, trivalent metal ions, pesticide leftover, biotoxins, and antibiotics.

Keywords: Biological aptamer sensors, Food safety, Heavy metals, Pesticide residues, Biotoxin, Antibiotics

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