

## Chapter 5

# Biosensor to Ensure Food Security and Environmental Control

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## 1. INTRODUCTION

There is an urgent need in the simple and reliable instruments for the assessment of food quality and potential hazards related to the food processing and contamination. Although modern technologies in agriculture sufficiently decrease direct risks related to the toxic species in foodstuffs, the variety of chemicals applied in agriculture as well as underestimated contamination sources call for the further efforts in the above area.

Biosensors are portable analytical instruments that integrate biological recognition element (enzyme, antibody, DNA, whole cells) with appropriate transducer converting biochemical recognition in the electric signal [1]. To