



# Green nanomaterials based nanosensors

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## Contents

1. Introduction	172
2. Synthesis of nanosensors	173
3. Characteristics of nanosensors	173
4. Mechanism of detection different types of green nanosensors	174
4.1 Electrochemical nanosensors	175
4.2 Optical nanosensors	176
4.3 Fluorescent nanosensors	177
4.4 Plasmonic nanosensors	178
4.5 Bionanosensors	179
5. Applications	180
5.1 Applications in medical field	180
5.2 Detection of ions	183
5.3 Environmental applications	183
5.4 Detection of plant pathogen	185
References	186

## Abstract

The emergence of the Internet of Things (IoT) necessitates increased sensor production while also providing thrust for highly focused nanomaterial-based sensor research. Of late, the focus is shifted to eco-friendly synthesis of these sensors for practical environmental remediation. This chapter contains a comprehensive review of detection tools for various applications including pharmaceuticals, biological, drugs and their delivery, agri-food sustainability, food adulteration and contaminants, heavy metals, anti-cancer, generation-storage-detection of hydrogen, air-water-environmental pollution, etc. Focus is given to green fabrication methods of electrochemical sensors, photo—electrochemical sensors, opto-electrochemicals sensors, biosensors, pressure sensors, pH sensors, electroanalytic sensors, optical sensors, etc. These strategies include the usage of plant extracts, biomass, microbes, etc. to synthesize nanomaterials including those of carbon, ZnO, Au and Au-based, magnetic, graphene-supported, metals,