Research Highlights

1. This review deals with gold nanoparticle-based colorimetric and electrochemical sensors developed in the past five years.

2. Application of gold nanoparticle-based colorimetric sensors in detection of illegal food additives is summarized.

3. Detection of common illegal additives using gold nanoparticle-based electrochemical sensors is discussed in detail.

4. Current challenges and future potential developments are discussed briefly.