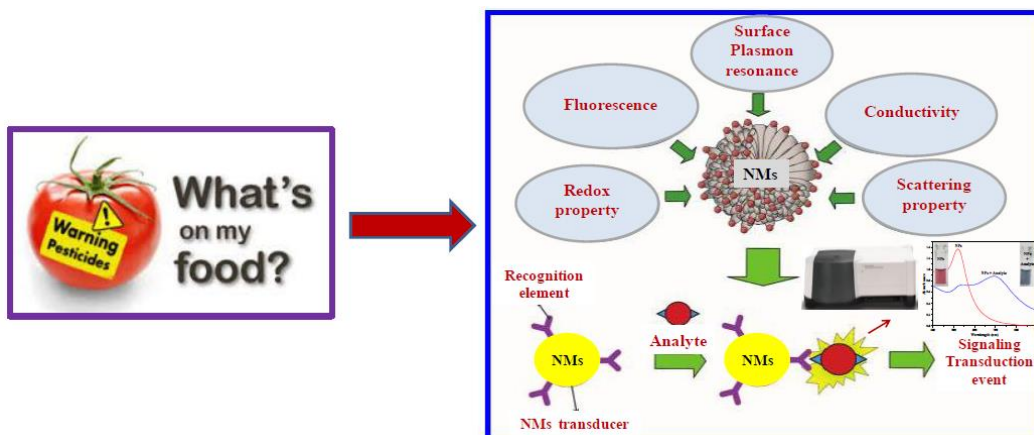


# Nanoparticles Based Test Kit to Detect the Presence of Pesticides in Food Samples

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**Abstract**—The presence of pesticides in air, water, soil and food is major safety concern especially for environment and human health. Hence, considerable research effort is already made in development of analytical methods to detect presence of pesticides [1]. Many instrumental analytical techniques are available for analysis of pollutants in various sample matrices but use of these instruments is limited for on-site detection due to big size of instrument, expensive and complex analysis. Sensing approaches based on metallic nanoparticles (Ag and Au NPs) have received considerable attention because of easy visualization (even by naked eyes) of results and avoiding use of sophisticated instrumentation [2]. Hence, nanoparticles based analytical probe proved as simple analytical tool for convenient detection of environment pollutants. This nanomaterials based simple test is highly selective towards targeted pesticides and capable to determine pesticides in various agriculture samples including food, soil and water [3]. Also, use of this test kit will provide primary and important information to pollution regulatory authorities regarding presence of pesticide in environment which will help them in monitoring and controlling safety and standard of food and water.



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