

July 12-13, 2018  
Paris, FranceJ Org Inorg Chem 2018, Volume: 4  
DOI: 10.21767/2472-1123-C2-006

# BARE EYE DETECTION BASED ON GOLD NANOPARTICLES AS ALTERNATIVE FOR TRADITIONAL ANALYTICAL METHODS

**Essy Kouadio Fodjo<sup>1</sup>, Cong Kong<sup>2</sup> and Koffi Mouroufie Gabriel<sup>3</sup>**<sup>1</sup>Université Felix Houphouet-Boigny, Cote d'Ivoire<sup>2</sup>East China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, China<sup>3</sup>LAPISEN, INP-HB, Cote d'Ivoire

Since the traditional analytical techniques are costly and need trained staff, research is focused on the development of easy analytical methods in order to overcome the increase in needs especially in food security. For this purpose, there are several reports aiming to improve these methods or explore novel strategies for its product detection. Gold nanoparticles (AuNPs) can be functionalized with biology compounds (streptavidin, Avidin-AuNPs for instance), and designed to signal for a selective contaminant detection. Most of these complexes can cause clusterization of biology compound-AuNPs and leads to a color change of the solution from red to blue (Figure). This visual detection scheme which does not require any fluorescent reagents and detection instruments can hold promise in point of care and food testing, particularly in resource-limited regions.

essykouadiofodjo@yahoo.fr

