

Fluorescence dynamics of graphene quantum dots for detecting lard substance

ABSTRACT

Graphene Quantum Dots (GQD) is used for detecting lard substance. It is discovered that the fluorescence for a GQD with a size approximately 5nm in size will have a peak at 675nm. Introducing lard substance to the GQD will induce a broad fluorescence spectrum at the range of 415 till 715nm. Higher fluorescence is observed from 760nm till 860nm showing the dynamics fluorescence changes when lard is applied. These fluorescence dynamics when lard is introduced is due to the functional groups of Carbon-Carbon interaction between GQD and lard.

Keyword: Fluorescence; Graphene quantum dots; Lard