

JAAFAR ABDULLAH**Ph.D. (Universiti Kebangsaan Malaysia)**

SENIOR LECTURER (Dr)

Department of Chemistry

Faculty of Science

Tel-office: 03 89466980

Fax: 03 89435380

jafar@upm.edu.my

**EXPERTISE**

Nanomaterials, Chemical and biosensor technology

Dr. Jaafar Abdullah is currently a senior lecturer at Department of Chemistry, Faculty of Science, Universiti Putra Malaysia. His major research areas include the use of functionalized nanomaterials such as nanocrystals semiconductor quantum dots, graphene quantum dots, graphene oxide, nanocrystalline cellulose for sensing applications. He has authored and co-authored more than 50 journal articles.

He has received numerous awards for his research work. He has 12 patents pending which include application of enzyme-quantum dots hybrid system for the detection of uric acid, biosensor for the determination of dissolved ammonia and ammonium ions, detection system for phenolic compounds detection, and biosensor for phenols. Major sponsors of his research include MOSTI (Science fund, Flagship DSTIN grant, Special grant, NND grant) and MOHE (FRGS).

CURRENT RESEARCH INTERESTS :**Point of care based sensors**

Point-of-care testing is the systems that implementing diagnosis and prognosis test near to the patient which can improve patient care through real-time and remote health monitoring. Biosensors have played a major role in the move towards simplified testing, including home-use devices. This work involves the utilization of functionalized nanoparticles and the development of non-invasive based sensor for healthcare monitoring.

Functionalized nanoparticles

The basic applications of surface functionalization range from altering the wetting or adhesion characteristics and improving the nanoparticles dispersion in matrices to enhance the properties and ordering the interfacial region. The creation of specific surface sites on nanoparticles for selective molecular attachment is considered a promising approach for their applications in nanofabrication, nanopatterning, self-assembly, nanosensors, bioprobes, etc.

LINK TO POSTGRADUATE FIELD OF STUDY:

Analytical Chemistry, Material Chemistry, Sensor Technology

ADDITIONAL INFORMATION: