

Imtiaz Mohammed Darwish Khalid, PhD

Nationality: American/Palestinian Assistant Professor of Chemistry Birzeit University, P.O. Box 14, Birzeit, Palestine Tel: +970 2 2985331 Cell (Palestine): +970592-490-213 ikhalid@birzeit.edu , imtiazkhld@yahoo.com

Dr. Imtiaz is an assistant professor of chemistry since 2008 and held various academic positions in United Arab Emirates (UAE) from 2008 -2013. In addition, Dr. Imtiaz held various positions in establishing new academic programs and developing new higher educational institutions in the UAE during the 2009 -2013 and was consultant for academic program development for accreditation. Dr. Imtiaz was a consultant for the national accreditation agency, Accreditation and Quality Assurance Commission (AQAC), in 2013-2014 to develop the Palestinian standards for institutional licensure and academic accreditation. During 2013-2015 - as a national expert- Imtiaz succeeded in completing few consultations supported by various international agencies (World Bank, PFDP (AMIDEAST) and GIZ) to complete various tasks to different Palestinian higher educational institutions.

Since 2015, Dr. Imtiaz has joined Birzeit University as an assistant professor in chemistry and is also helping in re-establishing the quality assurance system at Birzeit University. Imtiaz completed her B.Sc. from Shepherd University, West Virginia, in December 1997 and her PhD in analytical chemistry from Virginia Commonwealth University, Virginia in May 2008.

Dr. Imtiaz's main research interest is application of electrochemistry for overall improving sensitivity and selectivity detection in an anticipation for developing applicable sensor. Her work included conventional and microfluidic systems to prove detection enhancement due to proton coupling in both systems. In addition, another research area currently under investigation is the characterization of various potential drugs/drugs upon complexation to proteins to enhance the drug delivery by modification of electrochemical electrodes.

The main technique applied to enhance of electrochemical detection by employing chemical coupling using single electrode under conventional conditions and twin electrodes in microfluidic channels. The emphasis is to employ the electrochemical coupling between two independent electrochemical reactions as a strategy to improve electrochemical sensitivity and/or selectivity. In addition, Digital simulation and kinetic isotope effect are performed to characterize changes in kinetics of the investigated reactions as a result of coupling.

The results of the chemical coupling investigations are published as two scientific papers. Two other papers are under progress related to characterization of complexation and kinetic effects due to coupling principles.