“Panoptic Mass Spectrometry: How and Why”

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Abstract: The complexity of contemporary research requires interdisciplinary efforts, and mass spectrometry (MS) is poised to play an important role. The presentation is intended to demonstrate two recent MS experiments designed to facilitate (1) the detection of every ionic species originating from the ion source and (2) an on-demand diagnostic strategy for the underserved population.

Biography: Dr. Badu-Tawiah obtained his B.Sc. and M.Sc. degrees from Kwame Nkrumah University of Science and Technology, Kumasi – Ghana. He received his Ph.D. in Chemistry from Purdue University. From 2012-2014, he was a postdoctoral fellow at Harvard University under the direction of George M. Whitesides. At Ohio State Univ., Dr. Badu-Tawiah’s group is designing novel molecular probes for ambient MS analysis and imaging of proteins, antibodies, antigens, nucleic acids, and other biomarkers for diseases such as malaria and cancer. The probes are rationally designed to facilitate (1) point-of-care and direct-to-customer applications with handheld mass spectrometers, and (2) a novel on-demand disease diagnostic concept that permits onsite friendly sample collection followed by analysis at a later time without affecting diagnostic outcome.

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For more information and meeting requests contact Joe Loo at jloo@chem.ucla.edu