

Design of Consumer Assays

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Technical Abstract:

This talk will cover the design of a typical electronic single-use assay test aimed at mass market production for the consumer. This type of diagnostic format is a rapidly growing segment as healthcare moves from the hospital towards the consumer. The rapid immediate result, lack of sample adulteration, as well as privacy and convenience for the patient, make it a compelling option for many applications such as pregnancy, fertility and infection testing. The paper will describe typical measurement techniques such as colorimetry, voltametry, and impedance. It will also discuss critical aspects of the design such as power and energy management, electrostatic discharge, calibration, ethical issues and disposal.