

SYSTEMS, DEVICES AND METHODS FOR IMPROVING ACCURACY OF
BIOSENSORS USING FILL TIME

5 ABSTRACT

Methods for determining a concentration of an analyte in a sample, and the devices
and systems used in conjunction with the same, are provided herein. In one exemplary
embodiment of a method for determining a concentration of an analyte in a sample, the
10 method includes detecting a presence of a sample in an electrochemical sensor including
two electrodes. A fill time of the sample is determined with the two electrodes and a
correction factor is calculated in view of at least the fill time. The method also includes
reacting an analyte that causes a physical transformation of the analyte between the two
electrodes. A concentration of the analyte can then be determined in view of the correction
15 factor with the same two electrodes. Systems and devices that take advantage of the fill
time to make analyte concentration determinations are also provided.

Figure 1