SYSTEMS, DEVICES, AND METHODS FOR MEASURING WHOLE BLOOD HEMATOCRIT BASED ON INITIAL FILL VELOCITY

ABSTRACT

Methods for determining the hematocrit of a blood sample, and devices and systems used in conjunction with the same. The hematocrit value can be determined on its own, and further, it can be further used to determine a concentration of an analyte in a sample. In one exemplary embodiment of a method for determining the hematocrit value in a blood sample, a volume of blood is provided in a sample analyzing device having a working and a counter electrode. An electric potential is applied between the electrodes and an initial fill velocity of the sample into the device is calculated. The hematocrit of the blood, as well as a concentration of an analyte in view of the initial fill velocity can then be determined. Systems and devices that take advantage of the use of an initial fill velocity to determine hematocrit levels and make analyte concentration determinations are also provided.

FIG. 1