

138. The assay cartridge of claim 136, further comprising a gasket having one or more apertures, said gasket disposed between said cartridge body and at least one of said cover layers and wherein at least one of said fluidic networks is defined, at least in part, by said apertures.

139-161 (canceled)

162. An assay cartridge for analyzing a sample collected with an applicator stick comprising a shaft and a sample collection head, said cartridge comprising

a sample chamber having an elongated cavity that has a first elongated region and a second elongated region, said regions oriented at an angle with respect to each other,

wherein said angle is selected to bend said shaft upon insertion of said applicator stick into said sample chamber and promote fracture of said shaft.

163-166 (canceled)

167. An assay cartridge comprising

an extraction reagent chamber for holding an extraction reagent;

a sample chamber adapted to receive an applicator stick, said sample chamber connected to said extraction reagent chamber by an extraction reagent conduit, said sample chamber having a sample introduction port with a sealable closure;

a first detection chamber connected to said sample chamber by a first sample conduit.

168-176 (canceled)

177. A method of performing a cartridge based assay, said cartridge comprising

a sample chamber having a sample chamber vent port, said sample chamber connected to a sample conduit having a first sample conduit branch containing a first dry reagent,

a first waste chamber,

a first waste chamber vent port connected to said waste chamber;

a first detection chamber connected to said sample chamber by said first sample conduit branch and to said first waste chamber by a first waste conduit;

a first reagent chamber containing a volume of a first liquid reagent, said first reagent chamber being connected to said sample conduit through a first reagent conduit;

a first reagent chamber vent port connected to said first reagent chamber;

an air vent port connected to said sample conduit or said first reagent conduit; said method comprising

moving said sample from said sample chamber into said first sample conduit branch;

reconstituting said first dry reagent in said sample;

moving a slug of said sample having a predetermined volume into said first detection chamber; and

moving said sample in said first detection chamber into said first waste chamber;

moving said first liquid reagent into said first detection chamber;

measuring a signal from said first detection chamber.

178-199 (canceled)

200. A method of performing a cartridge based assay, said cartridge comprising

a sample chamber having a sample chamber vent port, said sample chamber connected to a sample conduit comprising a first dry reagent,

a first waste chamber connected through a first waste chamber conduit to said sample conduit,

a first waste chamber vent port connected to said waste chamber;

a first reagent chamber containing a volume of a first liquid reagent;

a first reagent chamber vent port connected to said first reagent chamber;

a first detection chamber connected to said sample chamber by said sample conduit and to said first reagent chamber by a first reagent chamber conduit;

an air vent port connected to said sample conduit or said first reagent conduit;

said method comprising

moving said sample from said sample chamber into said first sample conduit;

reconstituting said first dry reagent in said sample;

moving a first slug of said sample having a predetermined volume into said first detection chamber; and

moving said sample in said first detection chamber into said first waste chamber;

moving said first liquid reagent into said first detection chamber;

measuring a signal from said first detection chamber.

201-207 (canceled)

208. A method for preparing sample for analysis comprising

inserting an applicator stick used to collect a sample into a cartridge comprising a sample chamber, said applicator stick comprising a shaft and a sample collection head;

breaking the shaft of said applicator stick into a shaft segment and a head segment;

sealing said head segment in said sample chamber.

209-224 (canceled)

* * * * *