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A METHOD AND APPARATUS FOR MICROARRAYING OF BIOLOGICAL FLUIDS SAMPLES ON BIOLOGICAL SUBSTRATES

ABSTRACT

[0061] An apparatus for microarraying of biological fluid samples on biological substrates, the apparatus comprising: an array table for supporting the biological substrates, at least two configurable spotting pin assemblies each having multiple spotting pins, the multiple spotting pins capable of being selectively retracted and extended individually and independently, a first manipulator having a quick change device adapted for coupling to one of the configurable spotting pin assemblies and for positioning the one of the configurable spotting spotting pin assemblies to deposit the spots of biological fluid samples on the biological substrates; a second manipulator adapted for coupling to an optical device for positioning the optical device for scanning and acquiring the image data of the spots of biological fluid samples on the biological substrates; a processor having memory means for receiving, processing and storing the image data from the optical device and for controlling the first manipulator, the second manipulator and the two configurable spotting pin assemblies; where the processor upon receiving the image data from the optical device processes the image data for detecting locations of desired spots of biological fluid samples which do not meet a predetermined specification on the biological substrates; and further wherein the processor further controls the first manipulator to position one of the configurable spotting pin assemblies to the locations of the desired spots of biological fluid samples which do not meet the predetermined specifications and selectively extend spotting pins to facilitate the re-deposition of the spots of biological fluid samples on those locations.

[0062] FIG.1 accompanies the abstract.

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