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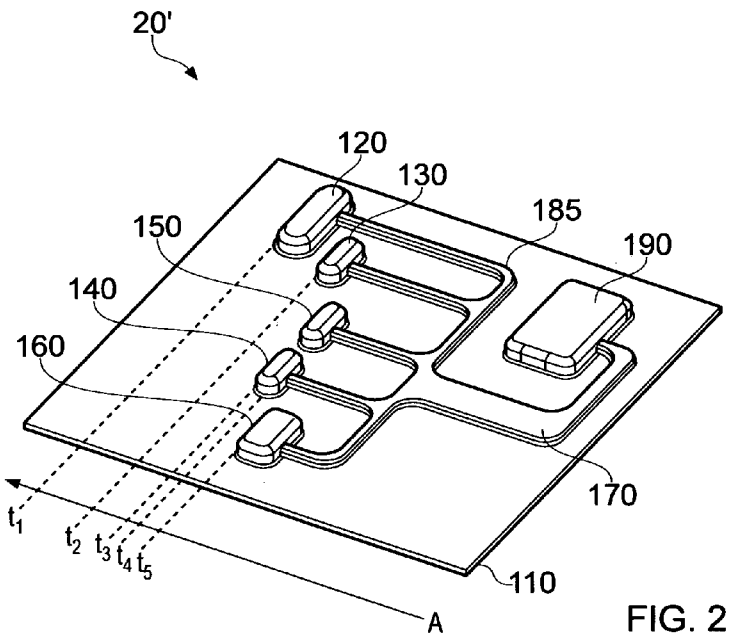


FIG. 2

(57) **Abstract**: An assay apparatus, assay method, assay card and an assay card controller are disclosed. The assay apparatus comprises: an assay card comprising a substrate having at least one compressible reagent reservoir thereon, each compressible reagent reservoir containing an associated reagent and each compressible reagent reservoir being coupled with a reaction chamber operable to receive a test sample; and an assay card controller comprising a compression mechanism operable to compress each of the plurality of compressible reagent reservoirs to cause each associated reagent to be injected in a predetermined order into the reaction chamber to react with the test sample. Such an arrangement provides compression of the reagent reservoirs to enable injection of reagent liquids into the reaction chamber in a pre-programmed manner using a very simple and reliable squeezing mechanism. This simple arrangement enables complex reagent reactions to occur which can be carefully controlled using a simple, low cost and reliable device which is easy to operate with a low level of skill and provides a sensitive and reproducible assay.

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