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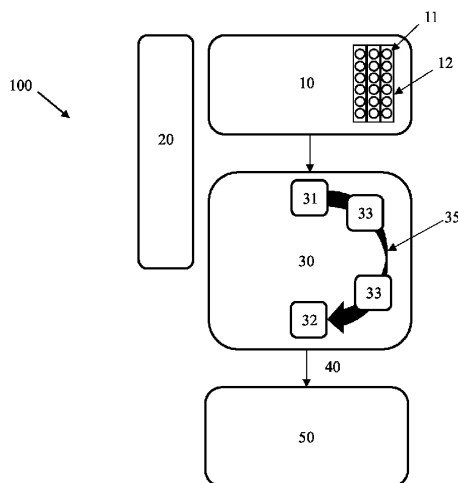


FIG. 1A

(57) Abstract: Systems and methods for onboard pooling of samples for high-throughput analysis of the samples. Including a sample loading area for receiving a plurality of sample tubes, and a sample transport configured to continually transport individual vessels along a transport path from a sample dispense position to a sample capture and transfer position, with intermediate positions therebetween. At least one pipettor to transfer a first and second samples from the sample loading area to the sample transport and to pool the first sample and the second sample in a vessel on the sample transport to form a pooled sample. A sample transfer mechanism to capture at least a fractionated portion of the pooled sample from the vessel at the sample capture and transfer position and to transfer the at least a fractionated portion of the pooled sample for high-throughput analysis.

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