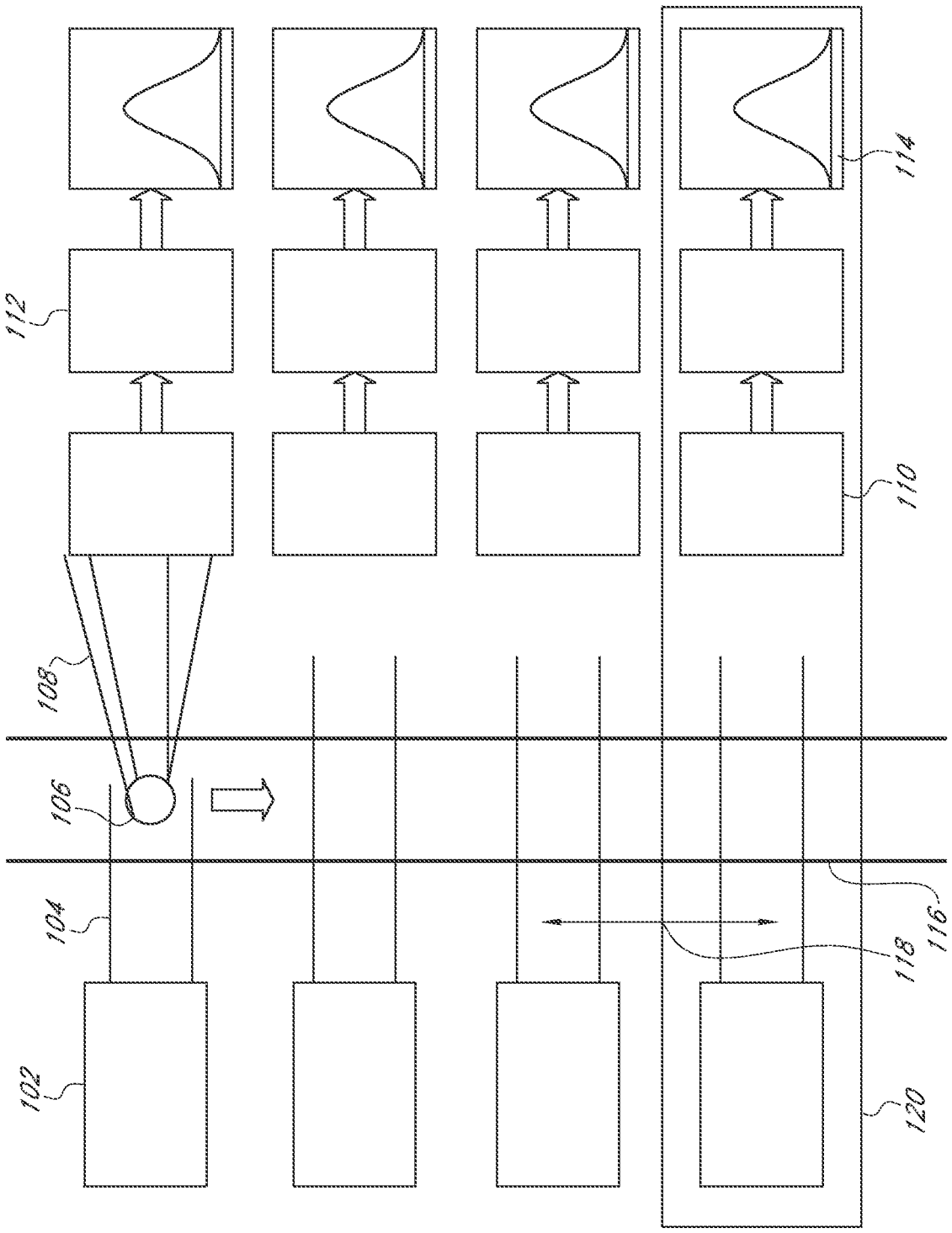


FIG. 1

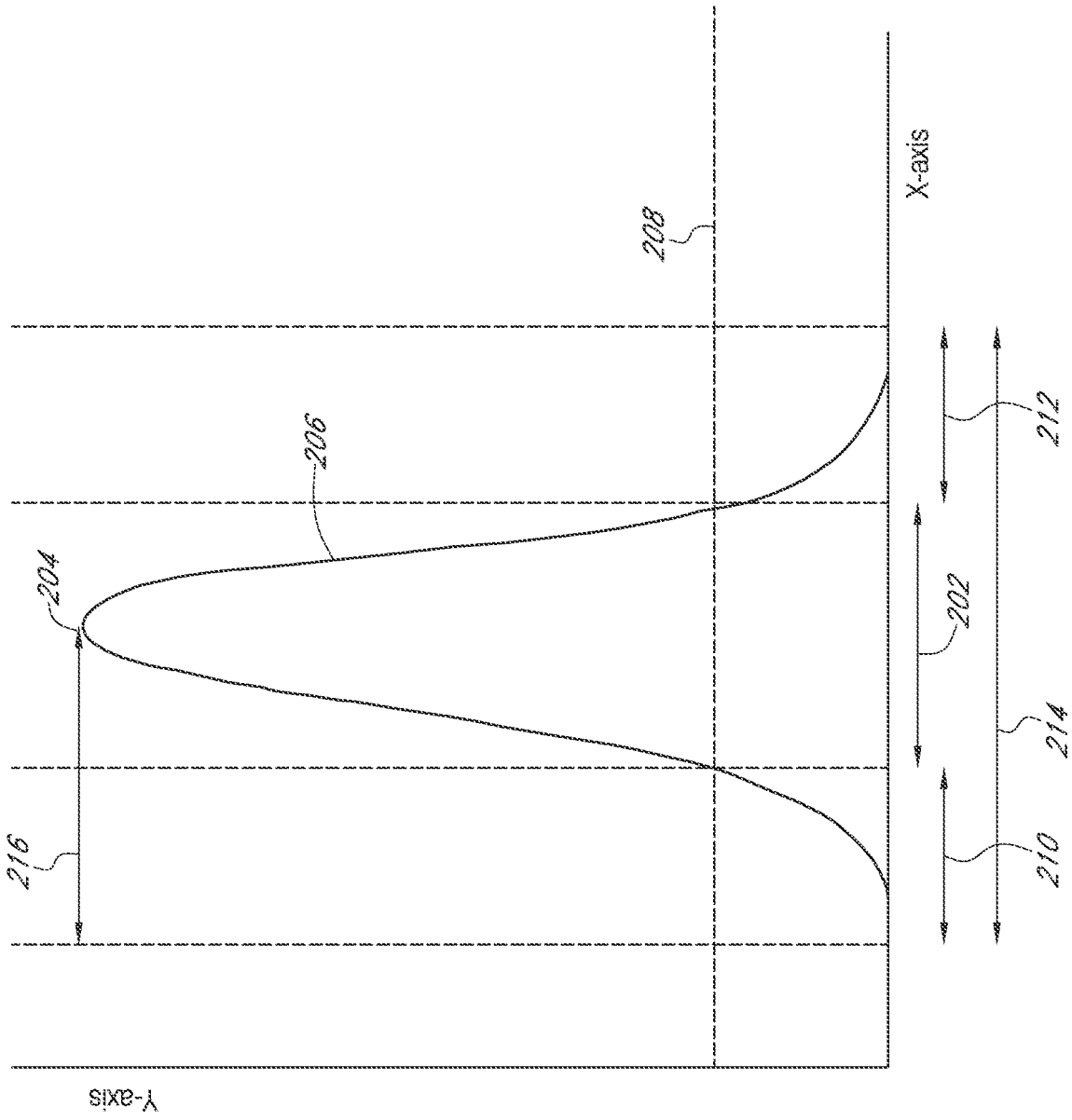


FIG. 2

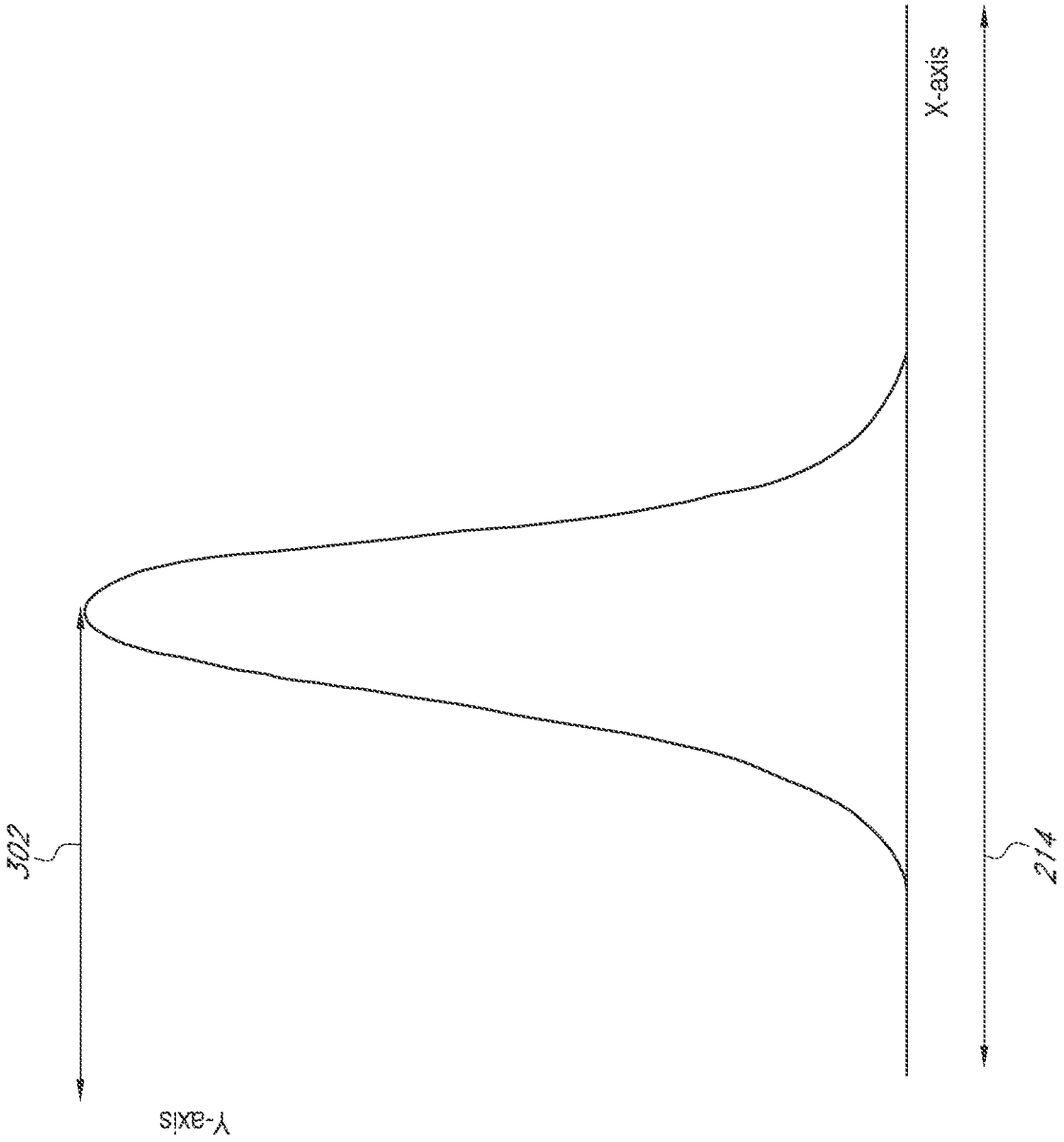


FIG. 3

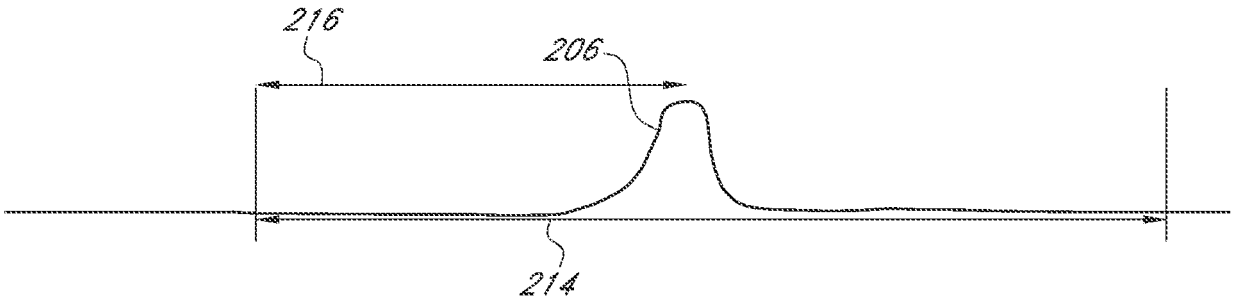


FIG. 4A

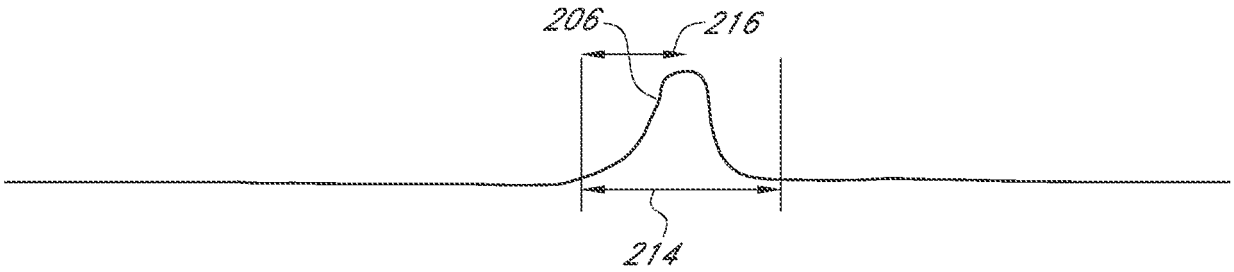


FIG. 4B

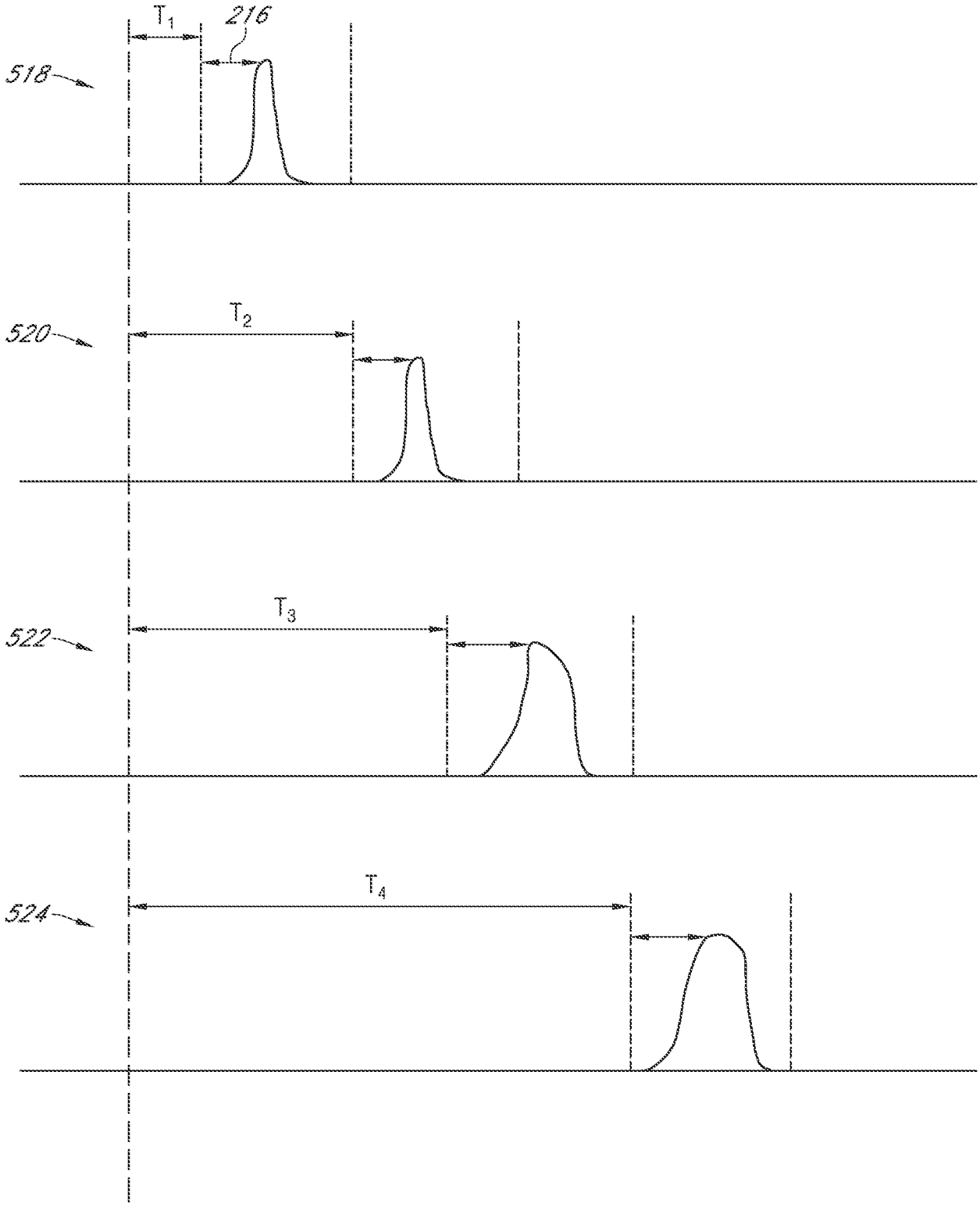


FIG. 5

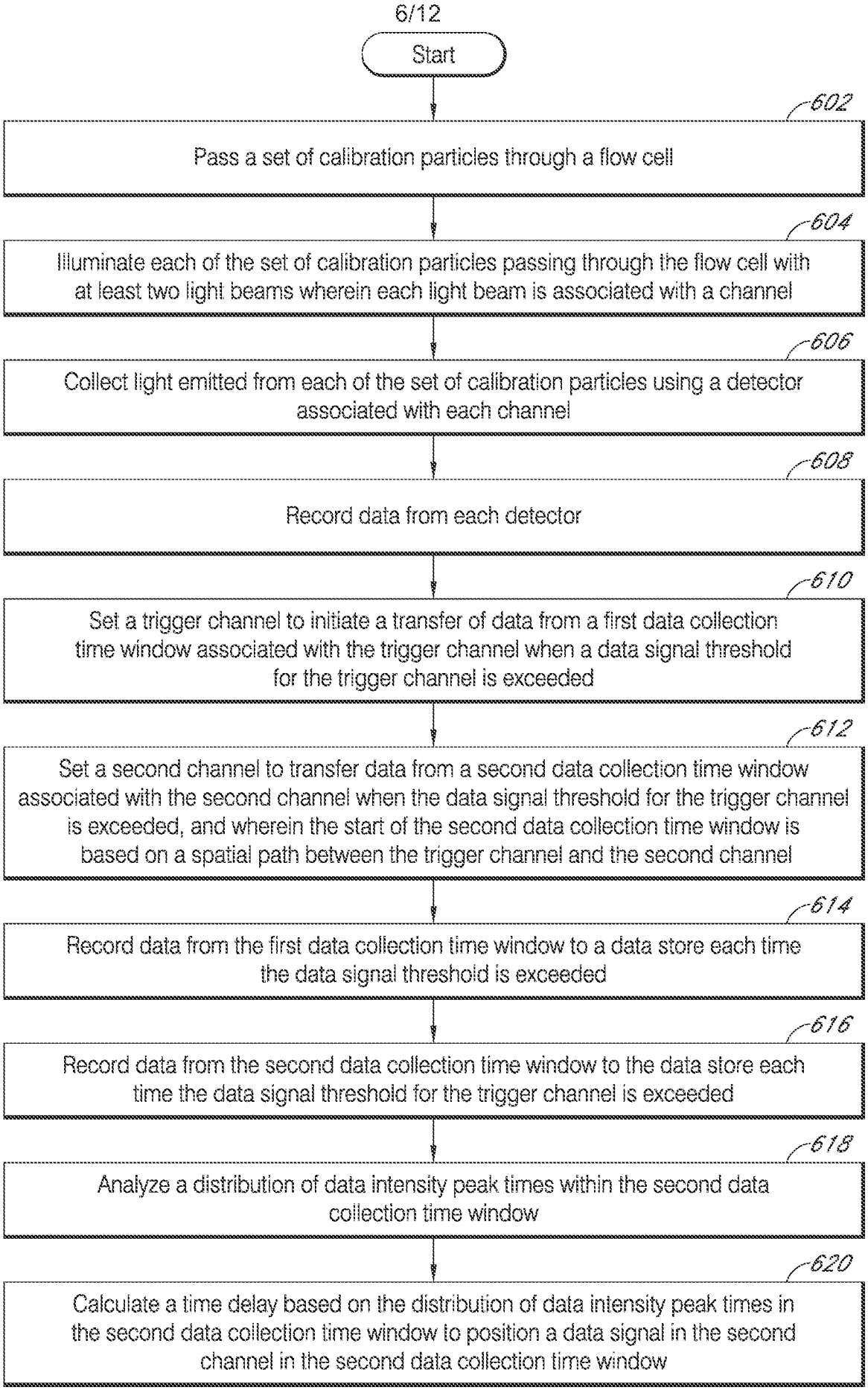

Start
602
Pass a set of calibration particles through a flow cell
604
Illuminate each of the set of calibration particles passing through the flow cell with at least two light beams wherein each light beam is associated with a channel
606
Collect light emitted from each of the set of calibration particles using a detector associated with each channel
608
Record data from each detector
610
Set a trigger channel to initiate a transfer of data from a first data collection time window associated with the trigger channel when a data signal threshold for the trigger channel is exceeded
612
Set a second channel to transfer data from a second data collection time window associated with the second channel when the data signal threshold for the trigger channel is exceeded, and wherein the start of the second data collection time window is based on a spatial path between the trigger channel and the second channel
614
Record data from the first data collection time window to a data store each time the data signal threshold is exceeded
616
Record data from the second data collection time window to the data store each time the data signal threshold for the trigger channel is exceeded
618
Analyze a distribution of data intensity peak times within the second data collection time window
620
Calculate a time delay based on the distribution of data intensity peak times in the second data collection time window to position a data signal in the second channel in the second data collection time window

FIG. 6

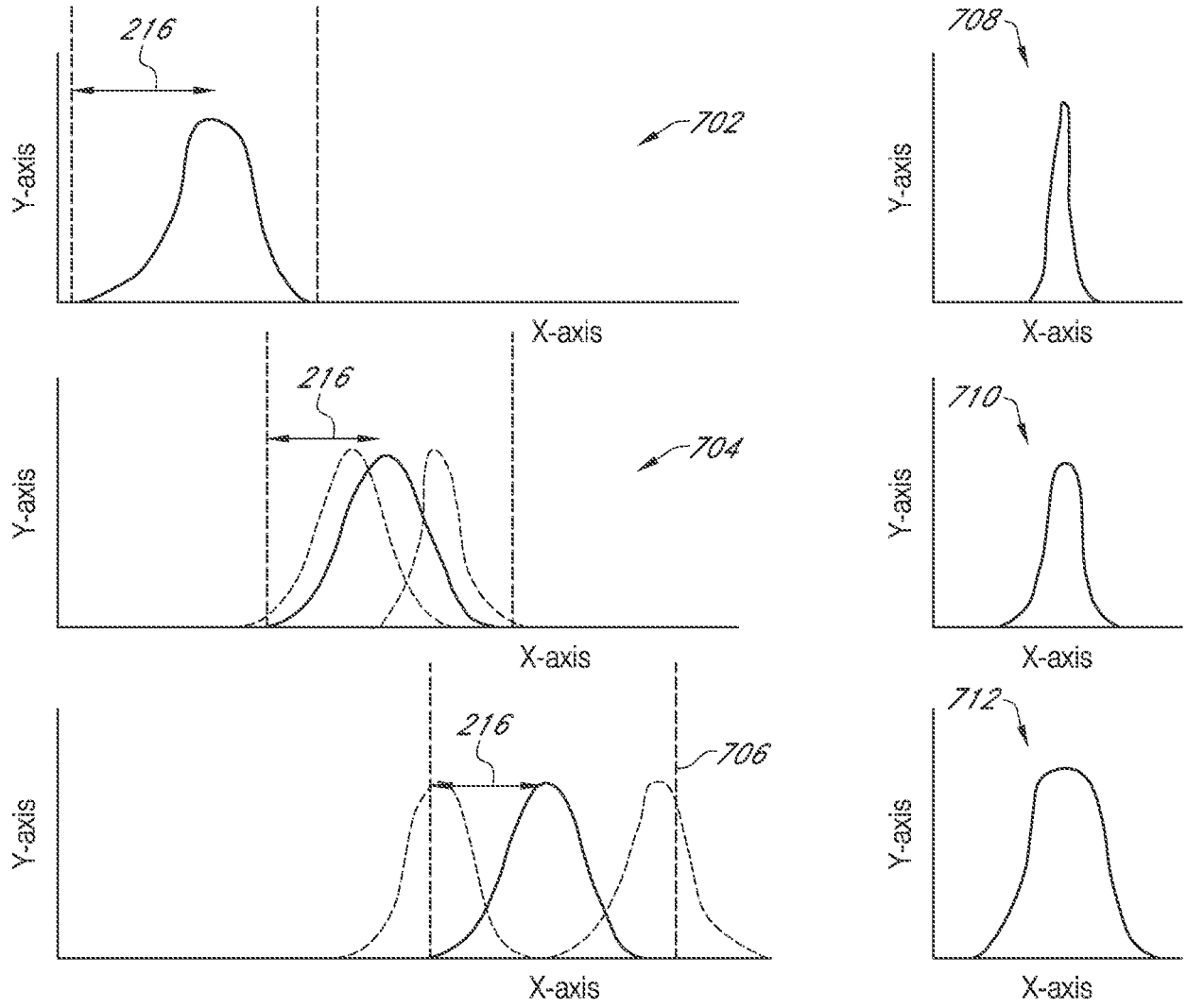

216
702
Y-axis
X-axis
708
Y-axis
X-axis
216
704
Y-axis
X-axis
710
Y-axis
X-axis
216
706
Y-axis
X-axis
712
Y-axis
X-axis

FIG. 7

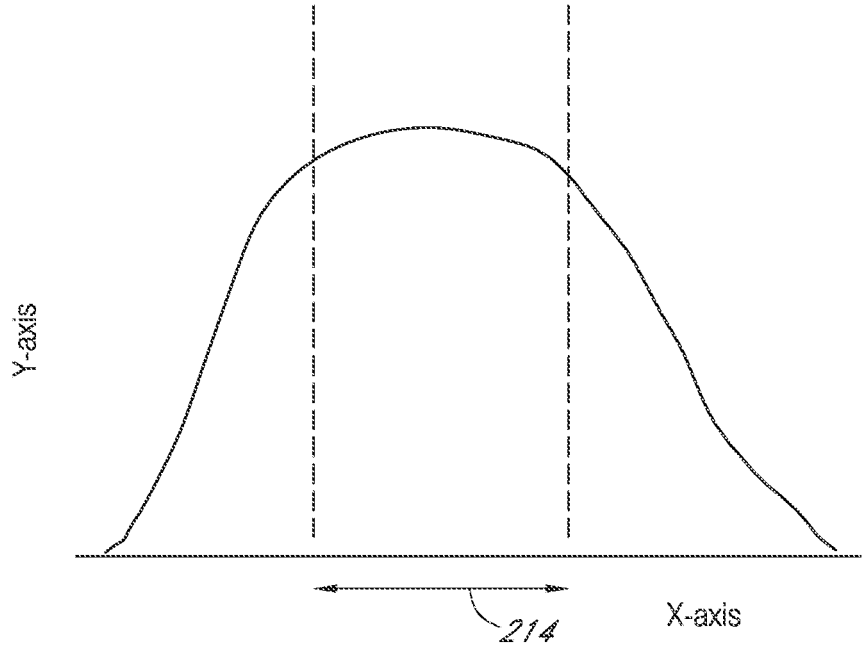


FIG. 8A

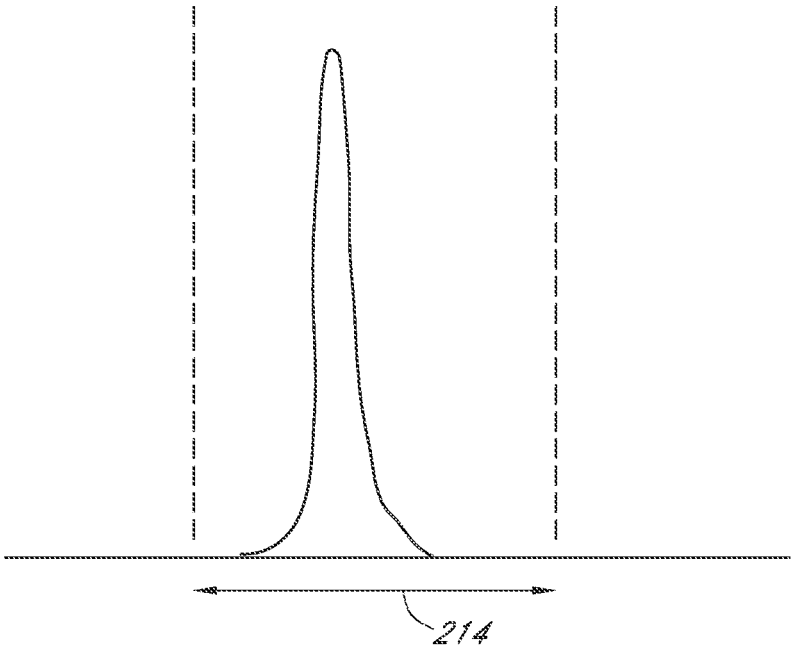


FIG. 8B

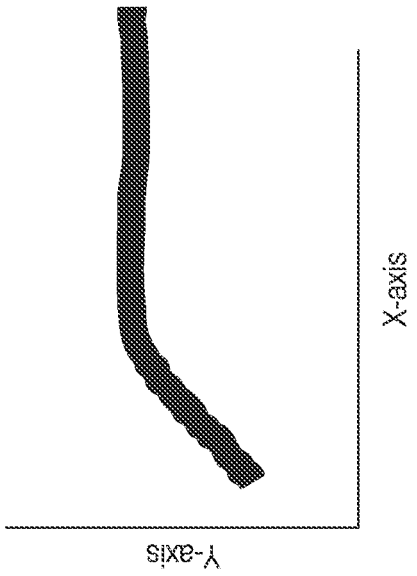


FIG. 9B

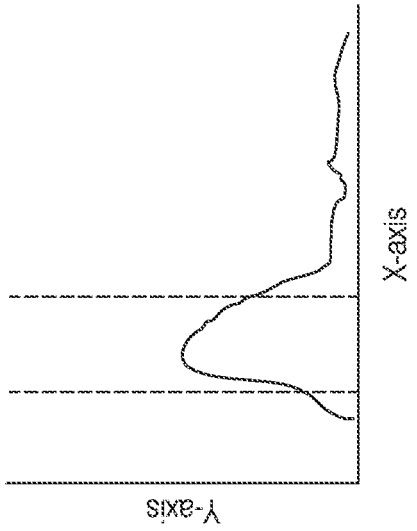


FIG. 9A

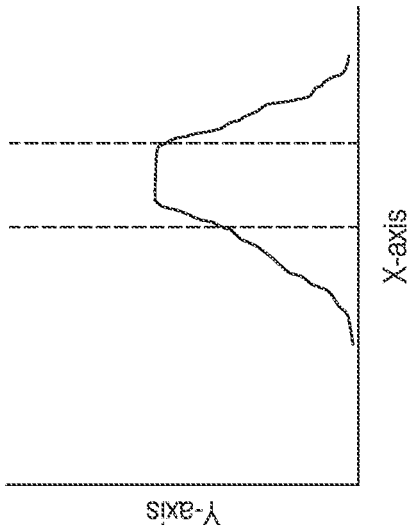


FIG. 9D

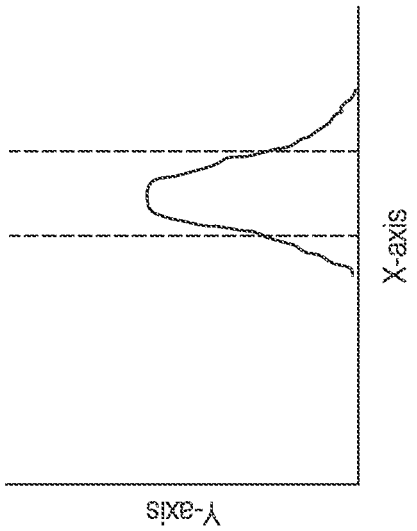


FIG. 9C

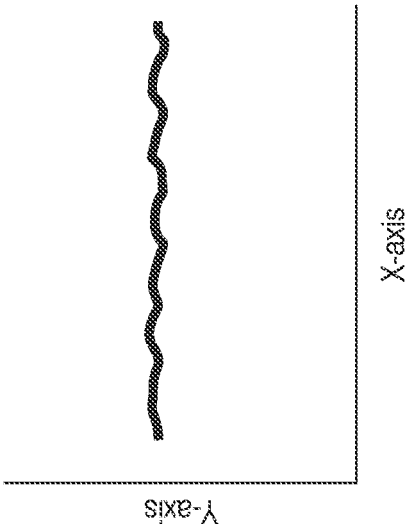


FIG. 9E

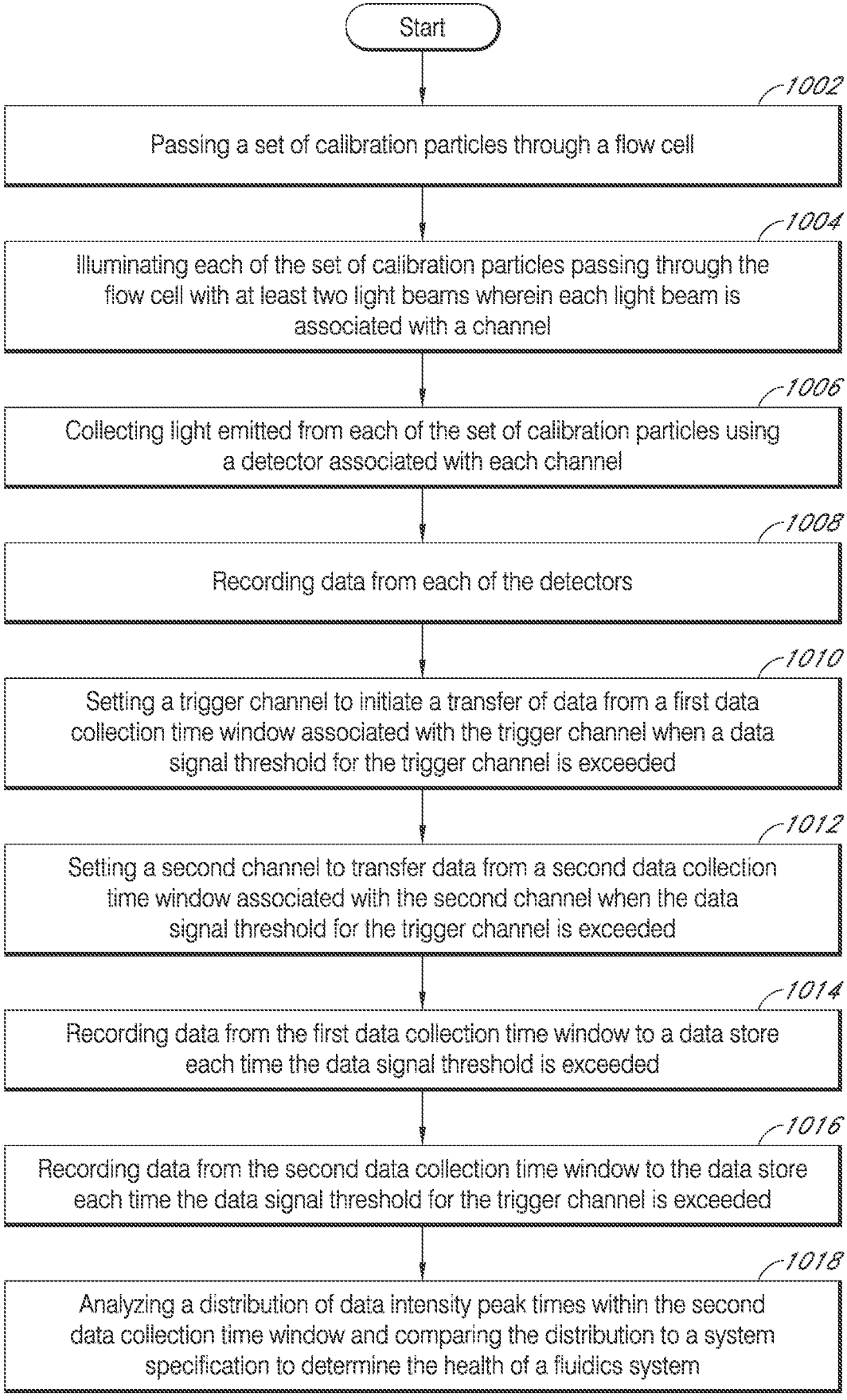

Start
1002
Passing a set of calibration particles through a flow cell
1004
Illuminating each of the set of calibration particles passing through the flow cell with at least two light beams wherein each light beam is associated with a channel
1006
Collecting light emitted from each of the set of calibration particles using a detector associated with each channel
1008
Recording data from each of the detectors
1010
Setting a trigger channel to initiate a transfer of data from a first data collection time window associated with the trigger channel when a data signal threshold for the trigger channel is exceeded
1012
Setting a second channel to transfer data from a second data collection time window associated with the second channel when the data signal threshold for the trigger channel is exceeded
1014
Recording data from the first data collection time window to a data store each time the data signal threshold is exceeded
1016
Recording data from the second data collection time window to the data store each time the data signal threshold for the trigger channel is exceeded
1018
Analyzing a distribution of data intensity peak times within the second data collection time window and comparing the distribution to a system specification to determine the health of a fluidics system

FIG. 10