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(54) Title: MULTIPLE SEQUENCING USING A SINGLE FLOW CELL

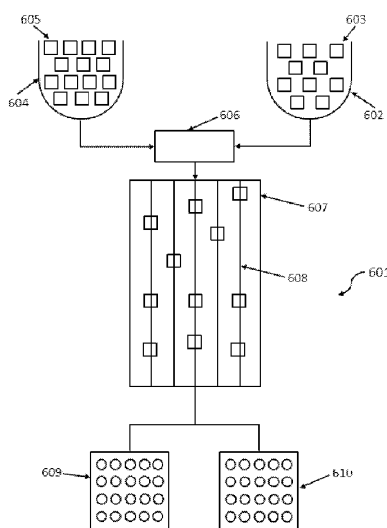


FIG. 6

(57) Abstract: The present disclosure provides methods and systems for nucleic acid sequencing. Such systems and methods may use a single flow cell to perform unbiased and/or biased sequencing to generate libraries of nucleic acid molecules. An aspect of the present disclosure provides a method for increasing complexity of a sample for sequencing, the method comprising: providing a first nucleic acid sample having a first degree of complexity that differs from a desired degree of complexity; providing a second nucleic acid sample having a second degree of complexity that differs from the first degree of complexity and that differs from the desired degree of complexity; pooling at least a portion of the first nucleic acid sample and at least a portion of the second nucleic acid sample, thereby generating a pooled nucleic acid sample having the desired degree of complexity; and sequencing at least a portion of the pooled nucleic acid sample.

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