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(54) **METHODS AND APPARATUS FOR CHARACTERIZING POLYNUCLEOTIDES**

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(57) **ABSTRACT**

Systems and methods for analysis of polymers, e.g., polynucleotides, are provided. The systems are capable of analyzing a polymer at a specified rate. One such analysis system includes a structure having a nanopore aperture and a molecular motor, e.g., a polymerase, adjacent the nanopore aperture.

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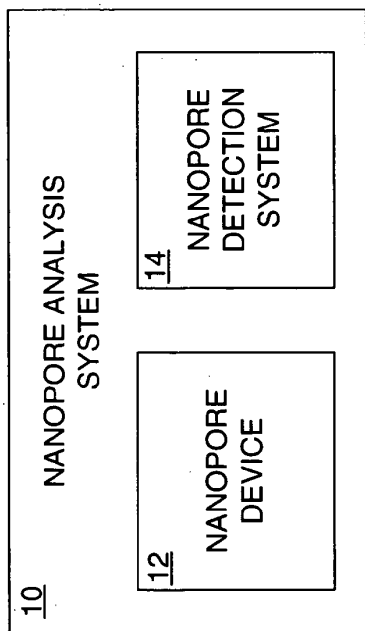


FIG. 1

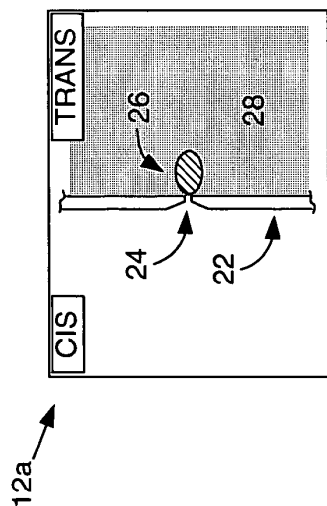


FIG. 2A

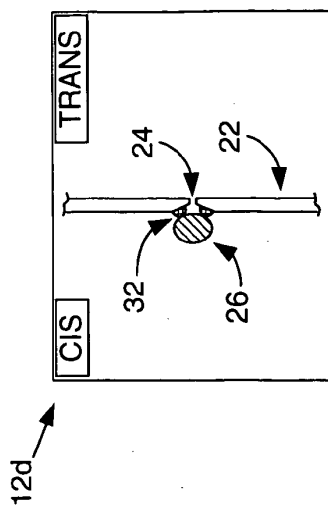


FIG. 2D

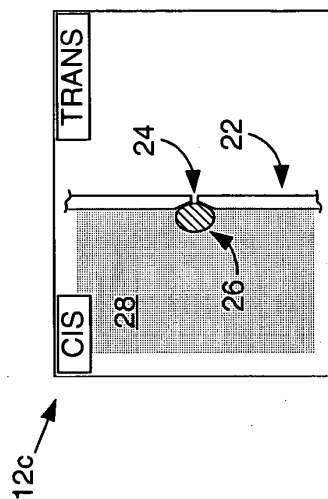


FIG. 2C

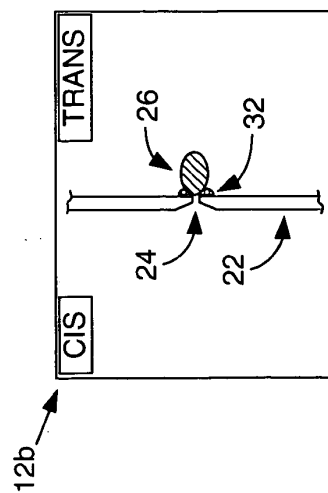


FIG. 2B

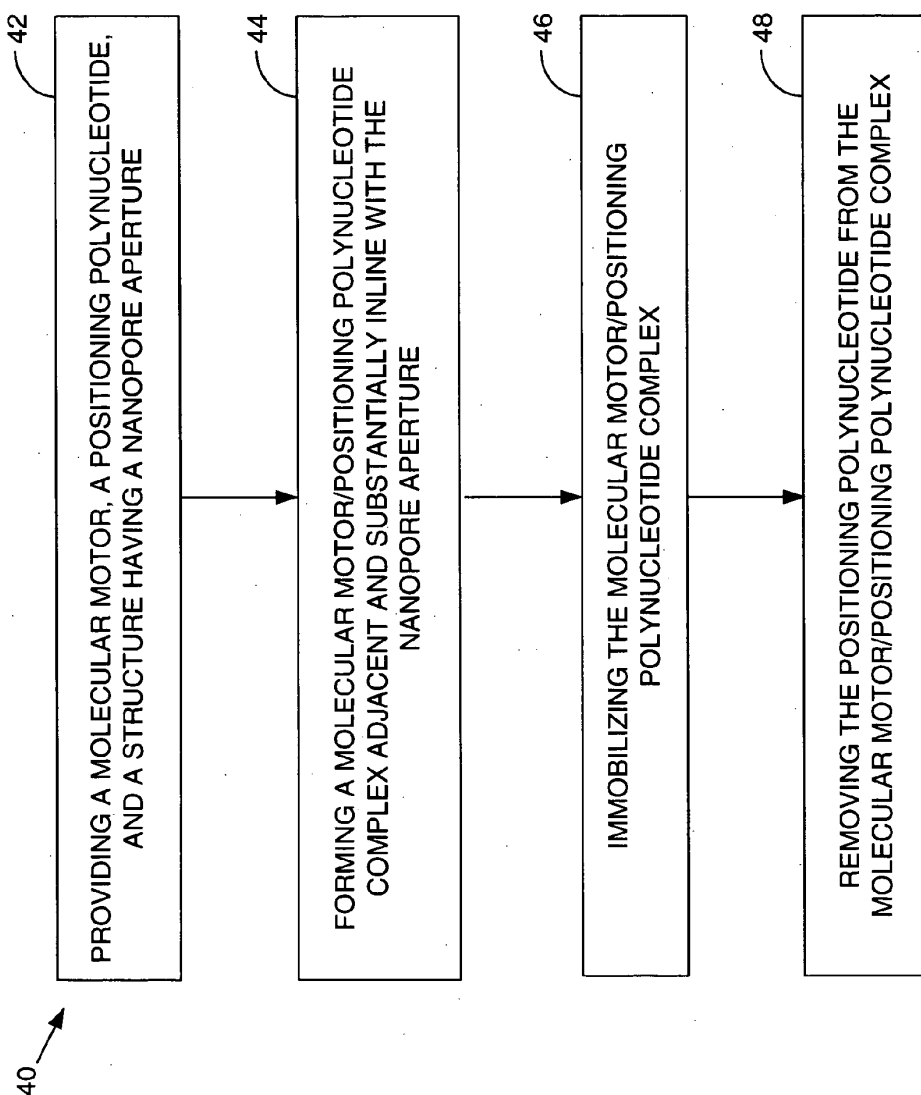


FIG. 3

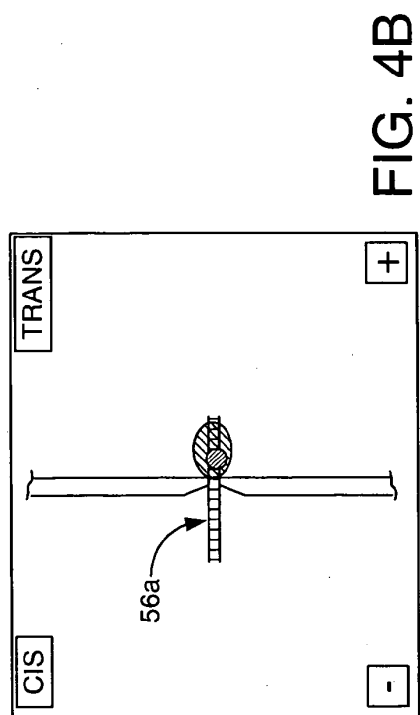


FIG. 4B

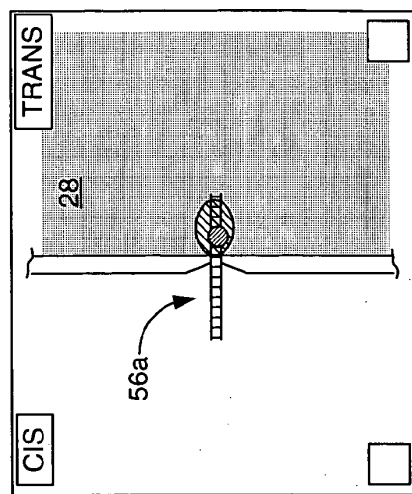
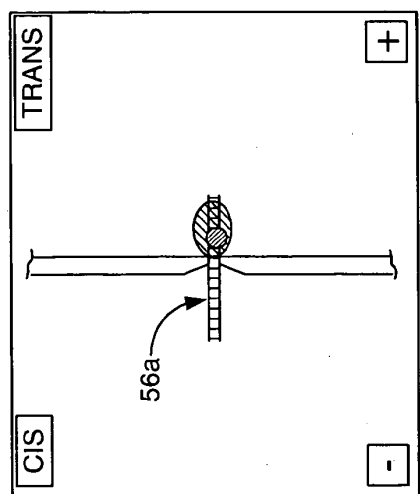


FIG. 4D

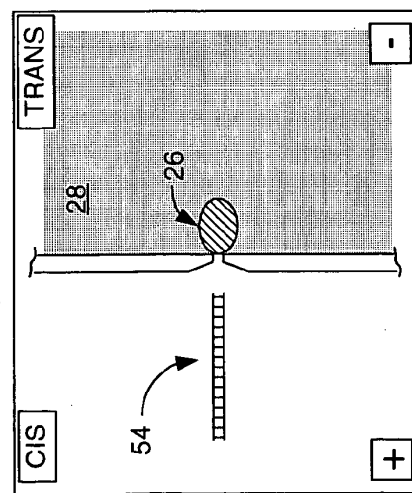


FIG. 4C

12a

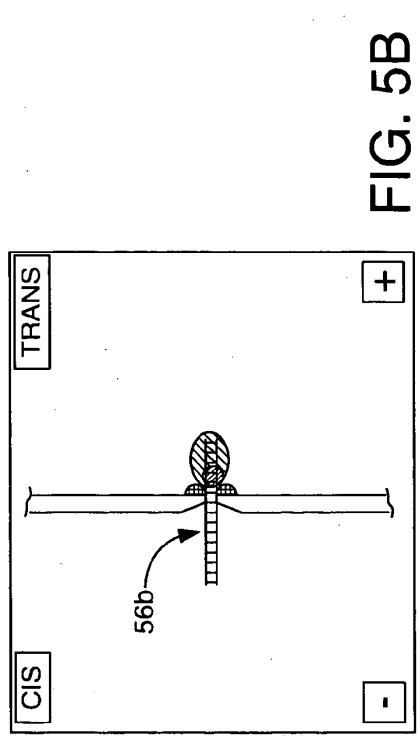


FIG. 5A

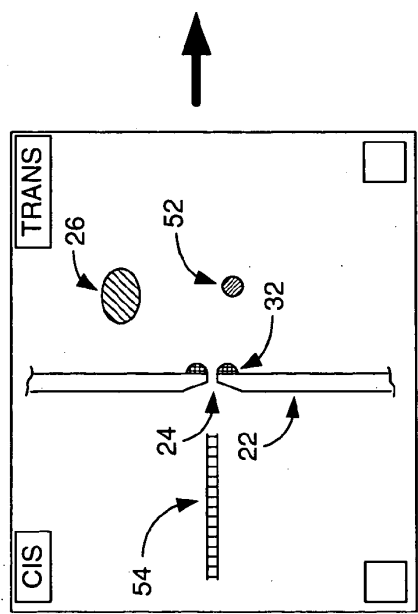


FIG. 5B

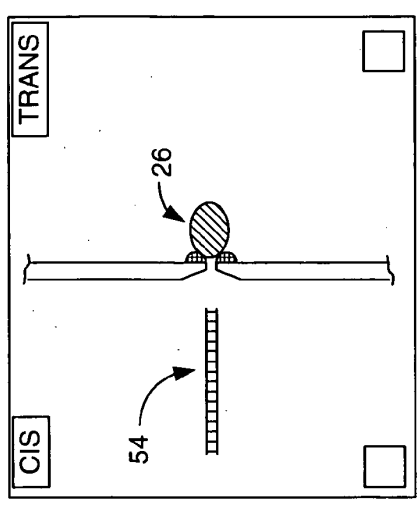


FIG. 5C

12b

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