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

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(76) Inventors: **Mark Akeson**, Santa Cruz, CA (US);
Daniel Branton, Lexington, MA (US);
David W. Deamer, Santa Cruz, CA (US);
Jeffrey R. Sampson, San Francisco, CA (US)

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Correspondence Address:
CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110 (US)

(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.

(21) Appl. No.: **11/088,140**

(22) Filed: **Mar. 23, 2005**

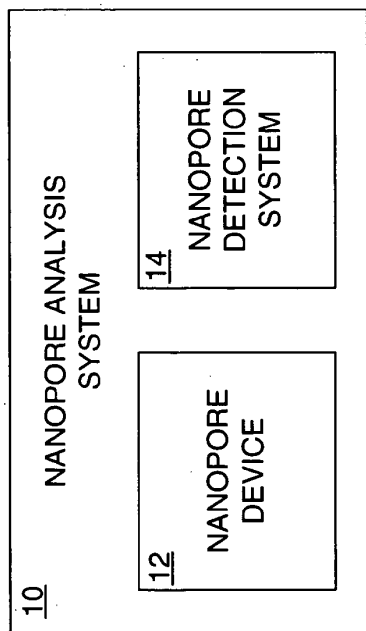


FIG. 1

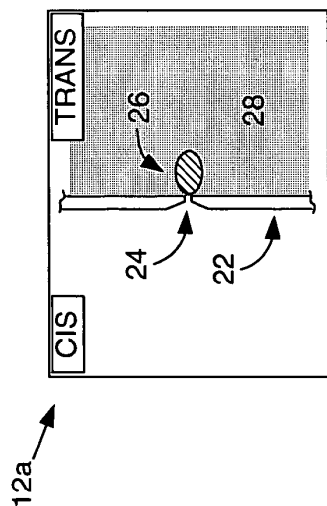


FIG. 2A

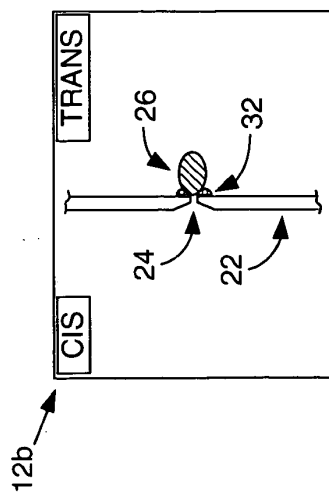


FIG. 2B

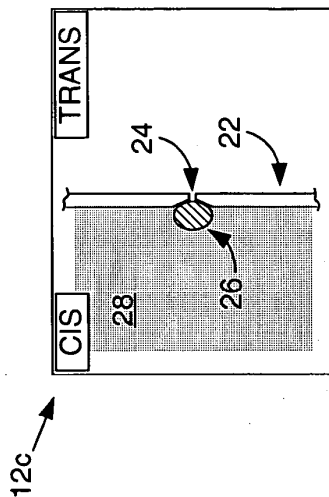


FIG. 2C

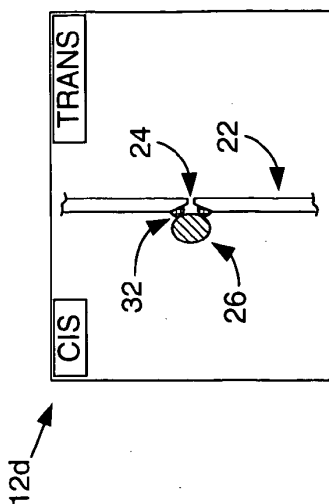


FIG. 2D

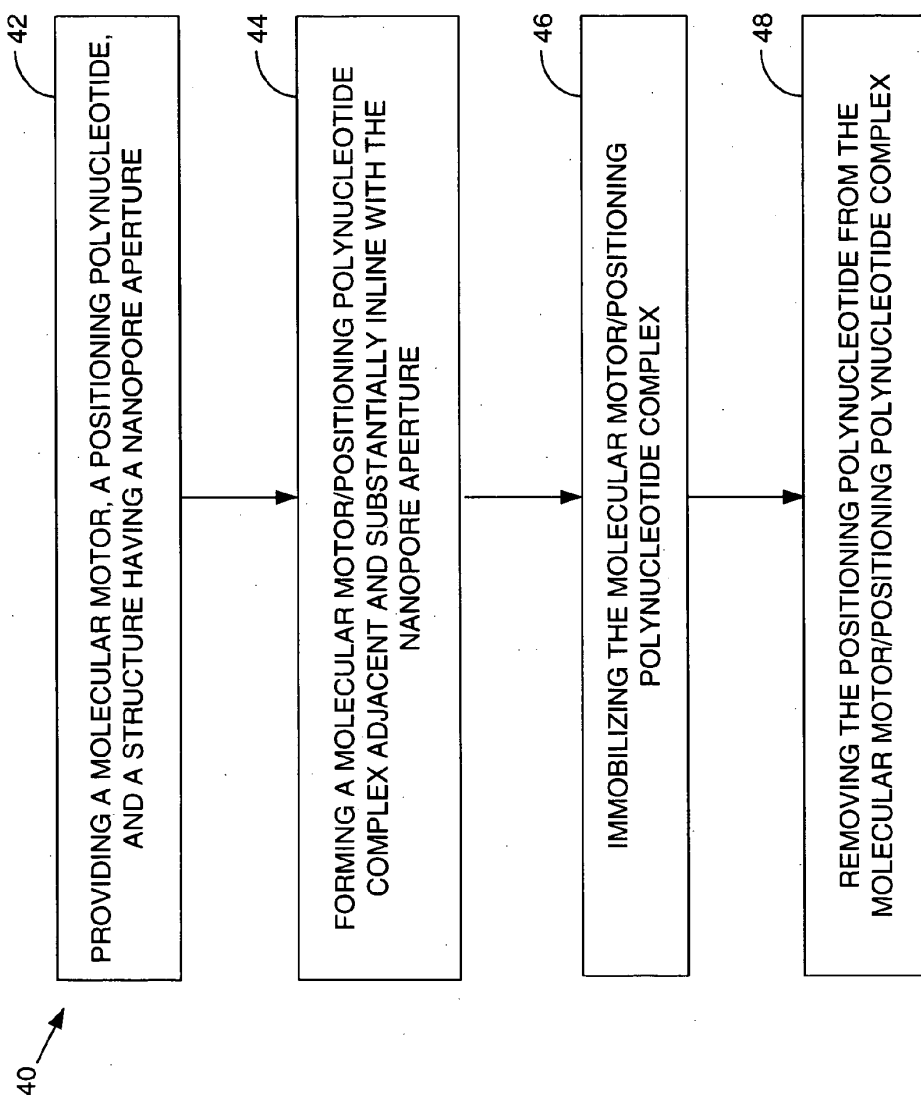


FIG. 3

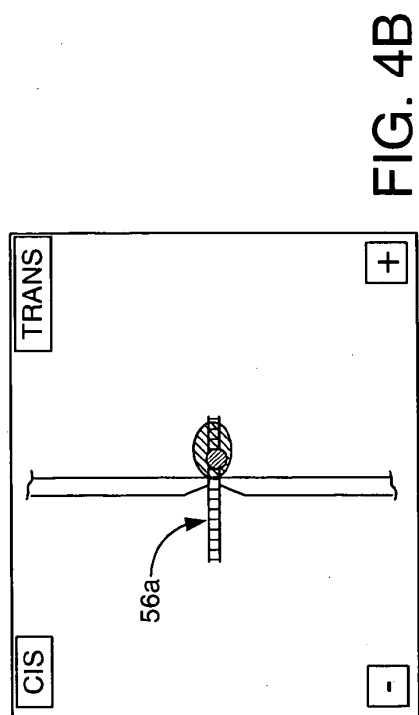


FIG. 4B

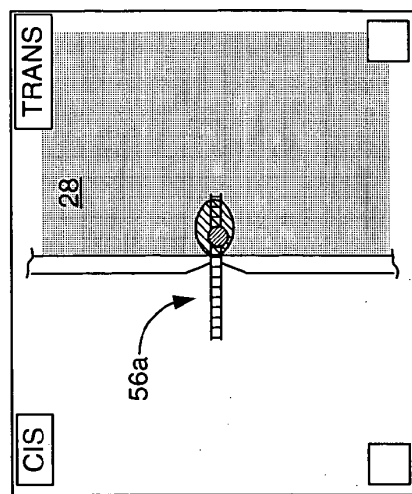
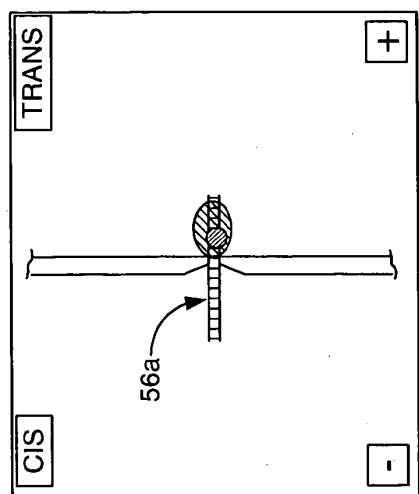


FIG. 4D

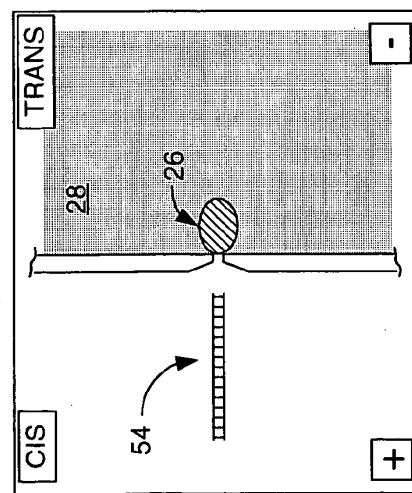


FIG. 4C

12a

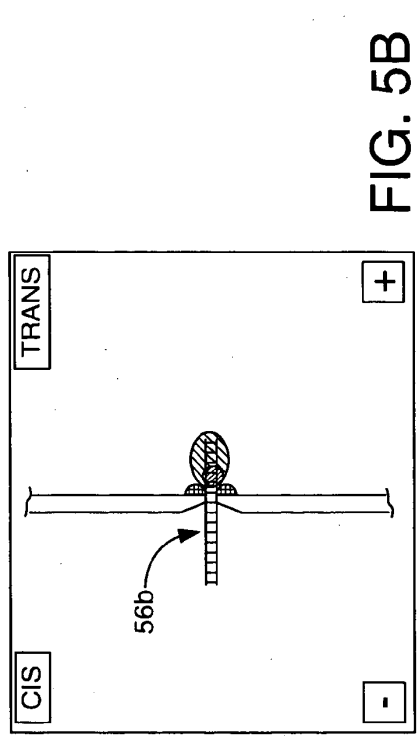


FIG. 5A

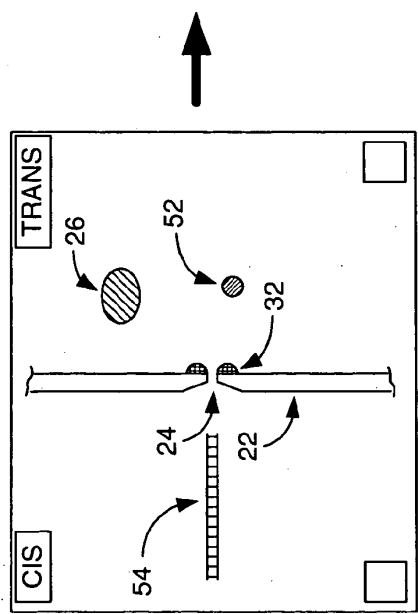


FIG. 5B

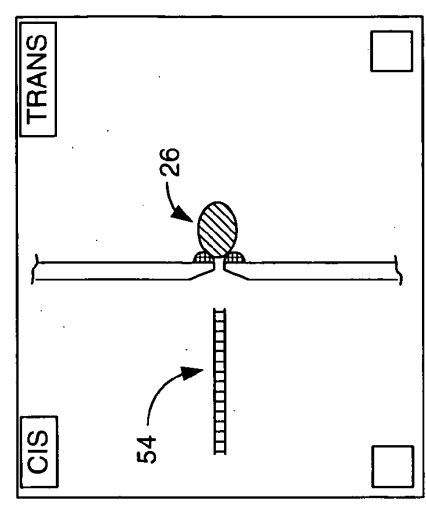


FIG. 5C

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