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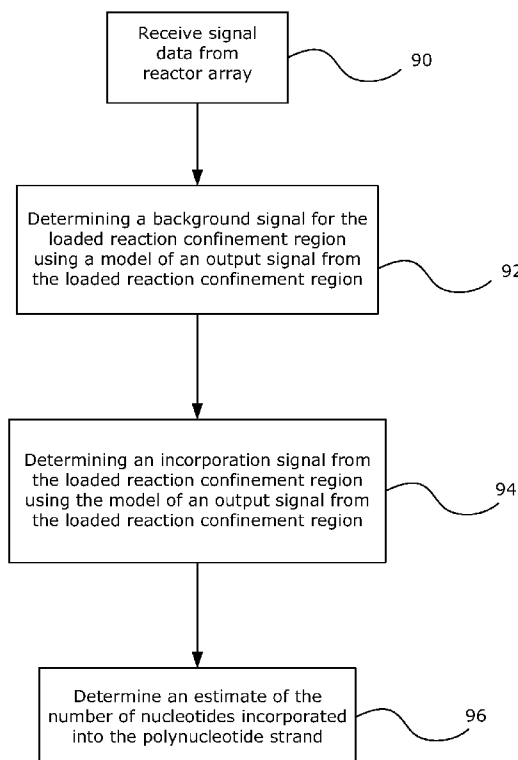
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[Continued on next page]

(54) Title: MODELS FOR ANALYZING DATA FROM SEQUENCING-BY-SYNTHESIS OPERATIONS

FIG. 7B



(57) Abstract: Mathematical models for the analysis of signal data generated by sequencing of a polynucleotide strand using a pH-based method of detecting nucleotide incorporation(s). In an embodiment, the measured output signal from the reaction confinement region of a reactor array is mathematically modeled. The output signal may be modeled as a linear combination of one or more signal components, including a background signal component. This model is solved to determine the nucleotide incorporation signal. In another embodiment, the incorporation signal from the reaction confinement region of a reactor array is mathematically modeled.



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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data, INSPEC, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/301398 A1 (ROTHBERG JONATHAN M [US] ET AL) 2 December 2010 (2010-12-02) cited in the application the whole document -----	1-30
A	US 2010/300895 A1 (NOBILE JOHN [US] ET AL) 2 December 2010 (2010-12-02) cited in the application the whole document -----	1-30
A	US 2010/300559 A1 (SCHULTZ JONATHAN [US] ET AL) 2 December 2010 (2010-12-02) cited in the application abstract paragraph [0679] - paragraph [0680] -----	1-30



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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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