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(72) Inventors; and

(75) Inventors/Applicants (for US only): **AYLIFFE, Harold, E.** [US/US]; 19622 NE 125th Ct., Woodinville, WA 98077 (US). **KING, Curtis, S.** [US/US]; 425 Lake St. South Apt. 2, Kirkland, WA 98033 (US).(74) Agent: **TRASK, Brian, C.**; 3601 East Hermes Drive, Salt Lake City, UT 84124 (US).

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(54) Title: METHOD FOR MANUFACTURING A MICROFLUIDIC SENSOR

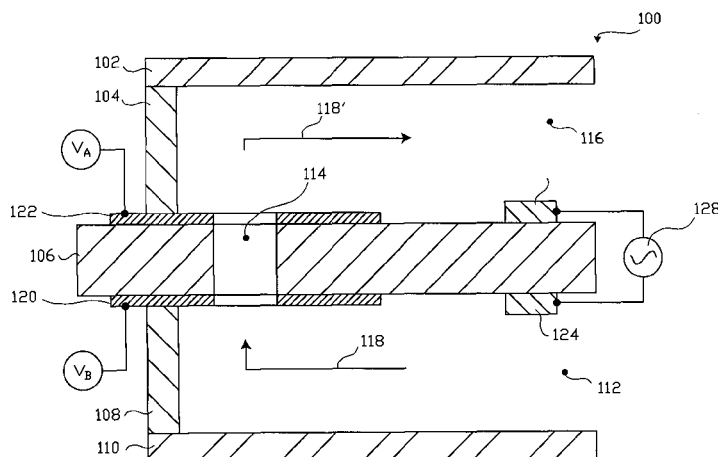


Fig. 1

(57) Abstract: A method to manufacture microfluidic sensors, typically including componentizing substrate layers. One such method includes providing a plurality of layers of material configured to permit their stacking to form at least a first cap layer, a first channel layer, an interrogation layer, and a second channel layer. During assembly, ribbon sections of substrate layers are sandwiched to cooperatively align elements through-the-thickness of the sandwich. Individual sensors are then removed from the sandwich ribbon. A componentizing step includes forming one or more elements for successive sensors spaced along the axial length of a ribbon. Certain elements include electrically conductive patterned structures preferably printed onto a substrate using conductive ink and a printing process, sometimes placing material in operable position to conduct electricity through the thickness of at least one ribbon. Other elements may include channels, tunnels, and vias that can be machined, stamped, or cut into a ribbon section.

