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Kolosov et al.

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(54) **INTEGRATED CIRCUITRY FOR CONTROLLING ANALYSIS OF A FLUID**

(58) **Field of Classification Search** 702/50
See application file for complete search history.

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(52) **U.S. Cl.** 702/50

(57) **ABSTRACT**

Circuitry for processing signals used to determine characteristics of a fluid under-test is provided. The circuitry includes a compensation device and integrated circuitry for interfacing with a tuning fork that is capable of being in contact with the fluid under-test and the compensation device. The compensation device is configured to differentially process a signal output of the tuning fork, and the differential processing of the compensation device is actively controlled by the integrated circuitry so as to produce a processed signal. The processed signal defines the characteristics of the fluid under-test, and the compensation device includes capacitive matching circuitry. Also provided are systems that incorporate the circuitry.

16 Claims, 18 Drawing Sheets

