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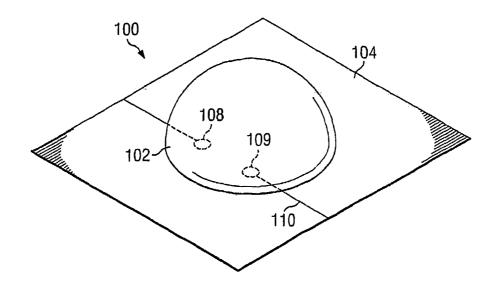
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: SYSTEMS AND METHODS FOR REDUCING THE EFFECT OF CORRUPTIVE SIGNALS DURING NANOLITER OSMOMETRY



(57) Abstract: An osmolarity measuring system includes the ability to recognize patterns within the electrical profile of nanoliters of fluid an account for corruptive signals in the electrical profile. These corruptive signals are mainly caused by the mechanical relaxation of the sample fluid after delivery or evaporation across the electrodes.

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B. FIELDS SEARCHED			
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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)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
X	US 5,005,403 A (STEUDLE et al.) 09 April 1991 (09.04.1991), see entire document.		1, 2, 4, 5, 8, 9, 16
 Y			6, 7, 29-31, 33-38
Y	US 5,461,699 A (ARBABI et al.) 24 October 1995 (24.10.1995), see entire document.		6, 36
Y	US 4,951,683 A (DAVIS) 28 August 1990 (28.08.1990), see entire document.		7, 29-31, 33-38
Α	US 5,143,080 A (YORK) 01 September 1992 (01.09.1992).		
Α	US 4,996,993 A (YORK) 05 March 1991 (05.03.1991).		
Α	US 4,269,197 A (GILBARD) 26 May 1981 (26.05.1981).		
A	US 5,665,904 A (BOLING) 09 September 1997 (09.0	09.1997).	
Further	documents are listed in the continuation of Box C.	See patent family annex.	
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