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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

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(54) **Title:** ARRANGEMENT ADAPTED FOR SPECTRAL ANALYSIS OF SMALL CONCENTRATIONS OF GAS

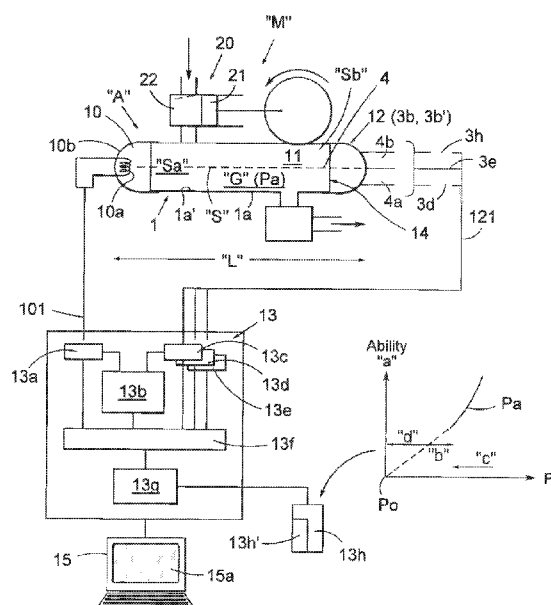


Fig. 2

(57) **Abstract:** This invention comprises an arrangement ("A") adapted for a spectral analysis, said arrangement having an IR (Infra Red light) transmitting means (10) adapted for an electromagnetic radiation ("S"; 4), a limited space (11) in the form of a cavity serving as a measuring cell and intended to be able to define an optical measuring distance or path ("L"), a sensing means (12) for said electromagnetic radiation (11S"; 4), passing said optical measuring distance ("L") from said transmitting means (10) to said sensing means (12), and a unit (13) performing the spectral analysis and connected at least to said sensing means (12). Said sensing means (12; 3b, 3b') for the electromagnetic radiation is opto-electrically adapted sensitive to the electromagnetic radiation (4) which is intended to fall within the spectral area whose selected wavelength components or spectral elements (4a, 4b) are to become the subject of an analysis in the unit (13) performing the spectral analysis, so as to determine in this unit, over calculations, the relative radiation intensity of the spectral element. Said electromagnetic radiation ("S"; 4) is adapted to be permitted to pass, with a predetermined energy, the space (11), in which the sample (G) of gas is disposed, under a predetermined overpressure (Pa) such as an overpressure (Pa) variable in time. A correction circuit (13g, 13h, 13h') is adapted to have a produced fictive measuring value reduced to a measuring value that is representative at atmospheric pressure (Po").



— *of inventorship (Rule 4.17(iv))*

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