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(54) Title: CONTAMINANT IDENTIFICATION AND CONCENTRATION DETERMINATION BY MONITORING THE INTENSITY OF THE OUTPUT OF AN INTRACAVITY LASER		
(57) Abstract A method and apparatus for detecting the presence of a specific concentration of gaseous species within a calibrated range in a gas sample are disclosed. The ILS gas detection system (10) of the present invention simply comprises an ILS laser (12) and an optical detector (16). However, the potential or operational wavelength bandwidth of the ILS laser (12) is preferably entirely included within one of the absorption bands or regions assigned to the intracavity gaseous species being monitored. Thus, within the calibrated range, the presence of the gaseous species changes the output laser intensity of the ILS laser (12). Consequently, only the intensity of the output of the ILS laser (12) need be monitored in order to quantitatively determine the concentration of the absorbing gaseous species when using the ILS laser method of the present invention.		