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(54) Title: 5-NITROVANIILIN AS A CALIBRANT FOR CALIBRATING THE DRIFT TIME FOR AN ION MOBILITY SPECTROMETER

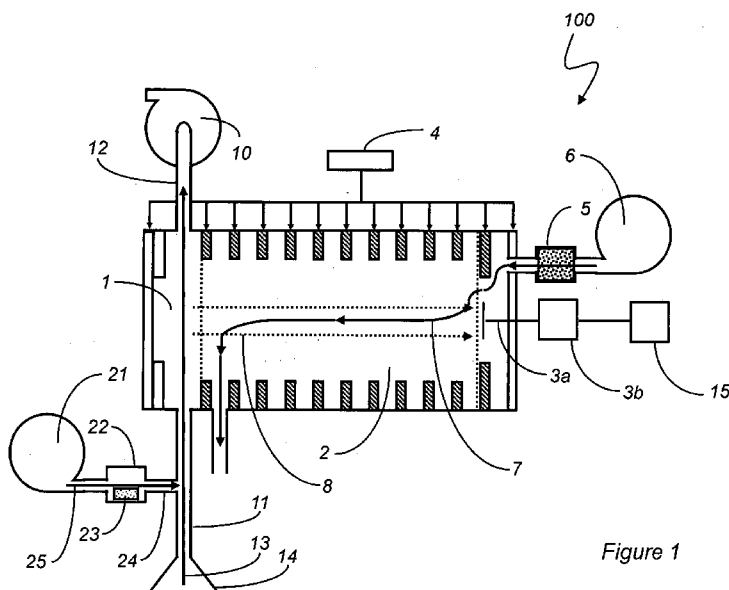


Figure 1

(57) Abstract: An explosive and narcotics detection system using an ion mobility spectrometer detects the presence of vapor or trace particles of target chemicals. The calibration of the spectrometer depends in part on the stability of a calibrant chemical that may be periodically injected together with sample gas into the ionization region of the spectrometer. The calibrant chemical produces a signal with a drift time that is known relative to target chemicals and may be used to calibrate the expected target chemical drift times. A new solid calibrant chemical, 5-nitrovanillin, is disclosed for this purpose. During calibration the calibrant is heated to produce a calibrant gas.



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According to International Patent Classification (IPC) or to both national classification and IPC

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 practical, search terms used).

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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