

ABSTRACT OF THE DISCLOSURE

LIQUID-FREE SAMPLE TRAPS AND ANALYTICAL METHOD FOR MEASURING TRACE LEVEL ACIDIC AND BASIC AMC

Described herein are liquid-free traps for trace levels of an acidic or basic airborne molecular contaminant in a gas. In one version of the invention described herein, the liquid-free trap comprises a housing, comprising an inlet and an outlet; a flow path between the inlet and the outlet; and a rigid sintered hydrophilic material situated in the flow path between the inlet and the outlet and sealed in the housing. The rigid sintered hydrophilic material is functionalized with from about 0.05 molar milliequivalents to about 10 molar milliequivalents of a basic species for trapping an acidic airborne molecular contaminant in the gas or from about 0.05 molar milliequivalents to about 10 molar milliequivalents of an acidic species for trapping a basic airborne molecular contaminant in the gas. Methods of using the liquid-free traps to detect or measure trace levels of an acidic or basic airborne molecular contaminant are also described.

[Figure 1B]