

Title (en)
CONTINUOUS ANALYZER OF VOLATILE ORGANIC COMPOUNDS, DEVICE AND METHOD FOR CONTINUOUSLY ASSESSING THE QUALITY OF INSIDE AMBIENT AIR AND USE OF SAID DEVICE FOR MONITORING A VENTILATION INSTALLATION

Title (de)
VORRICHTUNG ZUR KONTINUIERLICHEN ANALYSE VON FLÜCHTIGEN, ORGANISCHEN BESTANDTEILEN, VORRICHTUNG UND VERFAHREN ZUR KONTINUIERLICHEN AUSWERTUNG DER QUALITÄT DER INNEREN UMGEBUNGSLUFT UND ANWENDUNG DIESER VORRICHTUNG ZUR STEUERUNG EINER BELÜFTUNGSANLAGE

Title (fr)
ANALYSEUR EN CONTINU DE COMPOSES ORGANIQUES VOLATILES, DISPOSITIF ET PROCEDE D'EVALUATION EN CONTINU DE LA QUALITE DE L'AIR AMBIANT INTERIEUR ET UTILISATION DE CE DISPOSITIF POUR LE PILOTAGE D'UNE INSTALLATION DE VENTILATION

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Application
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Abstract (en)
[origin: FR2806163A1] An analyzer contains a measuring module with a carbon monoxide (CO)/organic volatile compound (VOC) detector (15) and a water detector (16). A control valve (13) operated by a sequencer (14) commutes the flow between two parallel branches of an air treatment circuit, with a cartridge which selectively retains VOCs mounted on a first branch (12) and a second, direct branch. An analyzer contains a measuring module with a carbon monoxide (CO)/organic volatile compound (VOC) detector (15) and a water detector (16). A control valve (13) operated by a sequencer (14) commutes the flow between two parallel branches of an air treatment circuit, with a cartridge which selectively retains VOCs mounted on a first branch (12) and a second, direct branch. A pump (17) operates downstream of the detectors so the air to be analyzed is drawn through a filter (11) to the detectors either directly or after passing through the cartridge. The analyzer also contains a treatment circuit for the signals from the detectors and the sequencer to determine the water content of the air, the CO content of an air sample free of VOC and the VOC content derived from the difference in signals from the CO/VOC detector depending on the route the sample took. Independent claims are also included for the following: (i) a device for measuring the quality of ambient air, comprising the above device with the addition of nitrogen dioxide (NO₂) and carbon dioxide (CO₂) detectors (20, 21) upstream of the VOC and water detectors, where the NO₂, VOC and water detectors are all metal oxide chemical micro-detectors and the pump is a membrane pump; and (ii) a process for operating the above device by calibrating each detector, calculating the correction due to the influence of majority component interference, transposing the output signal for each detector taking into consideration the calibration and correction, determining a quality index for each component by referring to an evaluation chart giving different threshold values and thus obtaining a global quality index as a function of the component indices obtained.

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