

NEW ELECTRONIC SYSTEM FOR GAS MEASUREMENT

Description:

There are a large number of simple and compound substances that produce odor, to a greater or lesser extent, depending on their degree of volatility. The chemical composition of the odor contains a lot of information, it is an indication of its own existence, level of concentration or state. Currently there are several models of commercial electronic noses, however, the vast majority of these devices have limitations to connect an indeterminate number of gas sensors in the same device in a simple and compact way. Although there are systems where there is no limitation in number, there is no device that is capable of adapting to a variable size in an optimal way, without having to carry out a specific prior design. The present invention refers to a modular and versatile electronic system that obtains the concentration and composition of gases together with their temporal and spatial evolution, which is configurable depending on the sector of the technique to which it is intended as well as the specific application to be pretend.

Keywords:

[Gases](#), [Measurement](#), [Electronic Nose](#), [Electronic System](#), [Smells](#)

Sectors:

[Electronics](#), [Health](#), [Agri-food](#), [Engineering](#), [Environment and Energy](#), [Chemistry](#)

Areas:

[Electronics](#), [Industrial](#), [Chemistry](#), [Technological Improvements](#), [Recognition and detection system](#)



Advantages:

The existing advantages in this new device are: - Not only is it limited to collecting specific chemical and physical magnitudes like most existing artificial smell systems, but a data chain is obtained as an output that adds the temporal and spatial reference of each one. This allows for further processing in statistical and artificial intelligence processes. - The invention contemplates the possibility of integrating an indeterminate number of intelligent auxiliary modules, regardless of their connection order or which intelligent auxiliary modules are combined. - The system can be portable, comprising an auxiliary module with battery for this purpose.

Uses and Applications:

The sectors of the art in which the present invention is applicable are multiple, among which can be enumerated, without being limited to them: environment, agriculture, cosmetics, food, medical, clinical, security, military, pharmaceutical or scientific research.

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