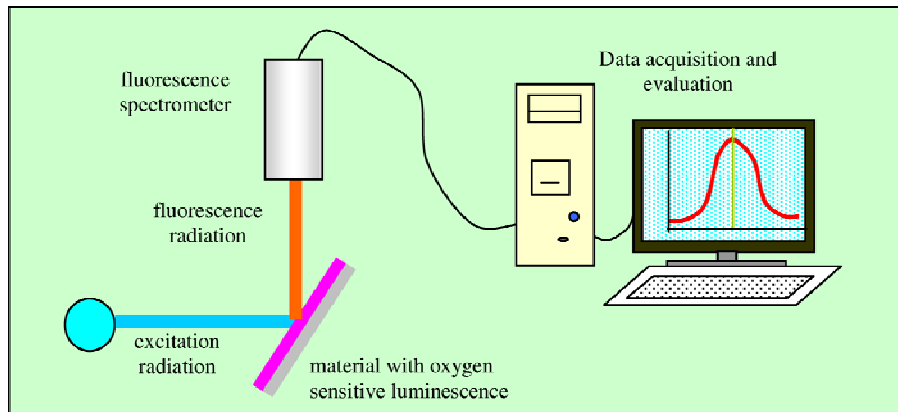


# Material with luminescence sensitive at oxygen

**DESCRIPTION:** The material is like a red polymeric film, being a composite with two layers, one of them being from polymeric matrix, which contains a fluoror. Polymeric matrix has a controlled porosity while the fluoror luminescence is burnt up by oxygen molecules.

Excitation of fluorescence can be made by irradiation with visible light (blue) or from near UV. The detection of fluorescence signal is made by a spectrometer with fiber optic. The intensity of luminescence signal goes down with increasing of oxygen concentration.



## **TECHNICAL CHARACTERISTICS:**

- thickness of 100 microns, deposited on metallic or ceramic support.
- sensitivity 5500 u.r./1 atm O<sub>2</sub>
- pressure range: vacuum - 1 atm. O<sub>2</sub>
- evaluation of air pressure: vacuum - 3 atm.
- minimum variation of detected oxygen pressure (resolution) 0.05 atm.

## **ECONOMIC AND ENVIRONMENT EFFECT:**

- increasing the safety of food product by improvement of control on the whole flow from producer to consumer;
- increasing the technical level of quality control in industrial companies and obtaining conditions for new products with high technical degree;
- the product is ecological; it is not necessary chemical reactive for testing and not result toxic wastes.

## **USERS:**

Companies from food product