SENOPTICA

TECHNOLOGIES LTD

- DYNAMIC GAS MIXTURES
- MODIFIED ATHOSPHERE PACKAGING
- COST & SPACE SAVINGS

A SOLID BUSINESS CASE IN COLLABORATION WITH
SENOPTICA TECHNOLOGIES LTD

GENERAL INFORMATION ABOUT THE PROJECT

TARGET OF THE PROJECT:
Tool for development of intelligent packaging for modified atmosphere packaged (MAP) products

DEPARTMENT:
Campus company, School of Chemistry, Trinity College Dublin

HEAD OF PROJECT MANAGEMENT:
Brendan Rice

ROLE OF MCQ INSTRUMENTS:
To produce the relevant modified atmosphere and to develop new formulations to achieve a specific output for a target modified atmosphere

MORE INFORMATION ABOUT THE COMPANY

The Senoptica Technology helps identify defective modified atmosphere packaging (MAP).
The Senoptica Sensor is printed directly into the MAP lidding film laminate. Once the product has been packed, the sensor is scanned using the Senoptica scanning system. On scanning, the sensor will appear a different colour, depending on the O2 level within the pack. Packs are then accepted or rejected based on the specification for that product.

DESCRIPTION OF THE APPLICATION AND THE TARGET

Senoptica is developing ink formulations for intelligent packaging applications. Senoptica's current focus is on modified atmosphere packaging (MAP) of food products.
Most food products in supermarket shelves are packed in MAP packages. In these packages, the gas content has been modified to keep the food fresher and safer for longer, but the industry currently checks only a tiny percentage of all packages produced due to the current testing method being destructive.

What we propose at Senoptica is a non-invasive testing method that will allow to test 100% of the packages produced and thus limit to a minimum or completely avoid out-of-specs packages reaching the supermarket shelves. Our technology has the potential of reducing plastic waste, food waste, while enhancing food safety.

We use the gas mixer to produce the relevant modified atmosphere in test rig so that the different formulations developed can be tested, calibrated. It is also used obviously in the development of new formulations to achieve a specific output for a target modified atmosphere (various food products will have different MAP gases).

BENEFITS AND SAVINGS

The gas blender GB100 Series turned out to be a reliable and compact device for screening the entire range of gas mixes used in MAP products.

Pre-mixed gas cylinders prices are considerably expensive while the MCQ Gas Mixer helps regulating the flow of gas very quick and very efficiently at the time of the event.

GAS MIXER VS GAS CYLINDER

The ability to blend O2 and CO2 simulations on-demand is an incredibly powerful tool in the development and provides a level of flexibility that gas cylinders cannot provide.

MICRO FLOW RATES: NO CUT-OFF

Our GB100 Series allows Senoptica to control the flow in all the calibration range, from 0,1 ml/min to 500 ml/min with NO cut-off.

COSTS & SPACE SAVINGS:

Our GB100 Series allows Senoptica to have an easy method to screen the entire range of gas mixes used in MAP products. This is traditionally achieved using pre-mixed compressed gas cylinders, usually expensive and space consuming solutions

EASY TO USE SOFTWARE:

Thanks to our Software PRO Version and its easy-to use user interface, now Senoptica can easy set all the experiment through our software.

TIME SAVINGS:

Easier setup management of the hardware.
Easier setup management of the software.

SUCCESSFUL ACHIEVEMENT:

GB100 Series offers a more flexible and user-friendly option to deliver custom gas mixtures to an oxygen regulated microscope perfusion system.

READY TO TALK ABOUT YOUR SOLUTION?

info@mcqinst.com - www.mcqinst.com