

# FA-st lab

## Food Analysis Science & Technology



## What is AW?

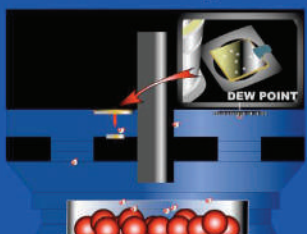
The water activity (AW) is the free water or available water or "active" water in food and must not be mixed up with the water content which is the water strongly bound to specific sites on the chemicals that comprise the foodstuff.

The AW is an important measurement to maintain the chemical stability of foods, the microbiological stability of personal care products, to improve the shelf-life of a product, to predict which microorganisms will be sources of spoilage.

For example, most of the bacteria do not grow at water activities below 0.91 and molds which are the most tolerant of low water conditions grow in the range of 0.61 - 0.94.

This parameter helps in controlling the non-enzymatic reactions too.

The optical detector monitors the mist on the mirror to determine its temperature



another product from



ETUDE DES TECHNOLOGIES AVANCÉES



# Specifications FA-st lab

If you work in a laboratory this instrument is particularly adapted for you. You are looking for an accurate, powerful and robust instrument, which is nevertheless light enough to move from one site to another if necessary. This model is dedicated to research.

## THE INSTRUMENTS MAIN 6 FEATURES

### Construction

Rugged metal construction

Large 7" touch screen

### Modern communication

Ethernet for easy computer & network connections SQL export of results to PC

Optional and modular NFC contactless communications for safety, traceability, and quick instrument settings depending on end user requirements

### Easy to use and navigate

Control by Touch screen and buttons and mouse and remotely by PC

Automatic start after loading of the sample

### No cooling fan

The new powerful electronics supplied with this water activity meter (activité de l'eau) requires no cooling fan to avoid dust and debris getting inside the instrument electronics and no cleaning of fan filters.

No cooling fan for the 20°C - 25°C range peltier temperature control of the sample and the chamber (Optional) thanks to a smart electronic control board and the correct use of materials for the sensor. Also avoiding damage from dust and debris.

### Easy and Fast service

No need to send back the unit. The instrument can be remote controlled via the internet without the need of a PC to evaluate the problem and perform software update

The measurement head / sensor can easily be swapped and replaced for quick and effective service thanks to its new internal design

### Measurements

Accuracy from  $\pm 0.003$  down to  $\pm 0.001$  of AW

Range from 0.050 up to 1.000

Measurement time from 2 min per sample

Up to 20 years of saved data (for 200 measurements/day)

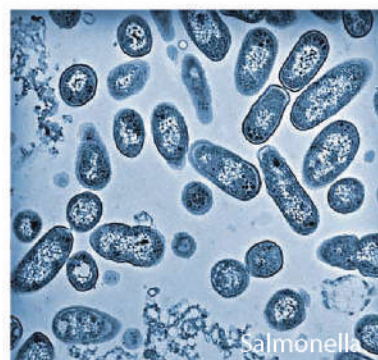
### Optional Temperature regulation

Accuracy  $\pm 0.01^{\circ}\text{C}$  or better

range :  $20^{\circ}\text{C}$  -  $25^{\circ}\text{C}$

### Some values of AW threshold

<b>0,95</b>	Pseudomonas
<b>0,91</b>	Salmonella
<b>0,87</b>	Many Yeasts
<b>0,80</b>	Most Molds
<b>0,75</b>	Mycotoxigenics Esp.
<b>0,65</b>	Xerophilic Molds
<b>0,60</b>	Osmophilic Yeasts



**SMART IDEAS CREATE SMART INSTRUMENTS**

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