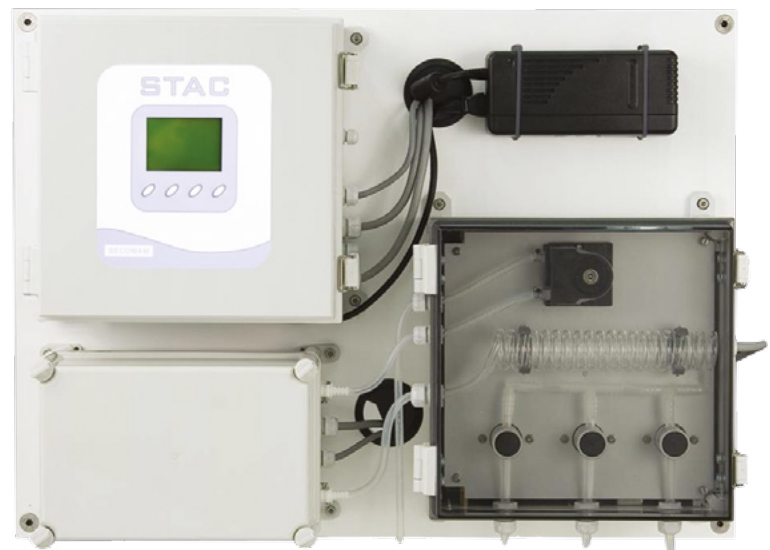
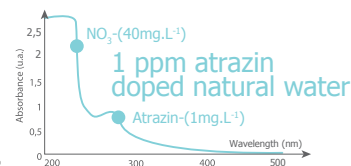
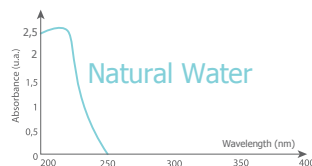
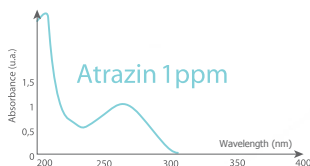


### STAC COMPACT ALARM SYSTEM



Example of Atrazin detection



## THE OVERALL CONTEXT

SECOMAM and Alès Mines School designed a Compact Alarm System called STAC dedicated for this survey.

Using an innovative and patented technology, the STAC :

- Estimates the Organic Matter (COD, BOD, TOC), the TSS level and measures the nitrate concentration.
- Checks and detects undesirable substances (Pesticides, aromatic hydrocarbons..)

## PRINCIPLE

Most of macro pollutants and mainly Organic Matters, TSS and Nitrates absorb in a specific way in the UV light spectrum.

By measuring the sample absorbance in the specific area of the UV spectrum, the STAC records the spectral profile of the sample, a true numerical picture of the water quality.



- Physical method with almost no consumable
- Very fast reading (< 5 minutes)
- Easy and low maintenance
- Both quantitative and qualitative reading
- Build in separates enclosures with aqueous sample isolated from electronics
- Fitting with most of tele-transmittable systems
- Fully automatic

#### • Detector

- UV diode array spectrophotometer (204-323 nm) without any moving parts
- Easy to maintain, 50 mm quartz cuvette
- Pulsed deuterium source for a far UV high energy

#### • Sampling

- Automatic and sequential sampling circuit rinsing and cuvette cleaning
- Programmable automatic sampling from 5 to 30 minutes
- Pinching valves Ø 8 mm for TSS reading without filtration

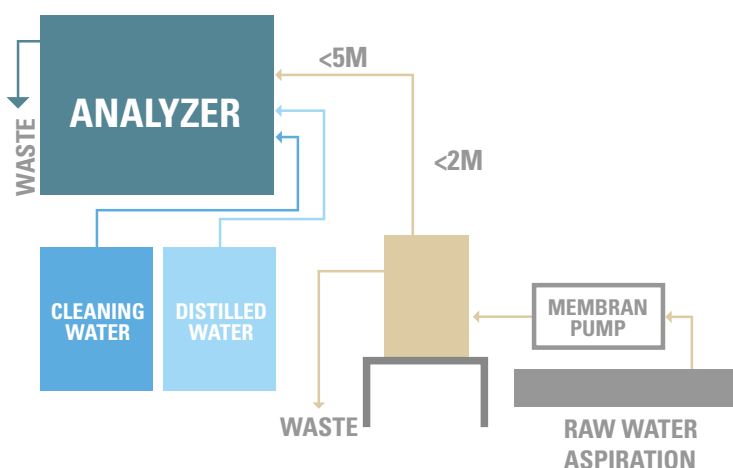
#### • Date transfer

- Current loops
- RS 232
- UV-Pro software for data storage and UV spectrum management

#### • Casing

- 1- Control box: 300 x 300 x 170 mm, Weight: 3 Kg, Protection IP 65
- 2- Fluidic box: 300 x 300 x 170 mm, Weight: 3 Kg, Protection IP 65
- 3- Polychromator box: 280 x 190 x 180 mm, Weight: 3 Kg, Protection IP 66/65

#### FLUIDS CONNECTION SCHEMATIC EXAMPLE Water analyzer



## MEASURING RANGE

#### • Correlation with Organic Matter:

- COD : 0.2 to 8750 mg/L
- BOD : 0.05 to 8750 mg/L
- TOC : 0.1 to 7500 mg/L
- TSS : 0.5 to 2500 mg/L

#### • Nitrates measurement:

- NO<sub>3</sub> : 0.1 to 1000 mg/L

#### • Undesirable substances detection:

- Components: 2,4,D, DIURON, CHLORPYRIPHOS, ATRAZINE 200, AMINOTRIAZOLE, PARAQUAT, DIAZINON, AZULENE, HEXAZINONE, DIQUAT, BENTAZONE, AROMATIC HYDROCARBONS

## ORDERING INFORMATION

- **70MP0454:** STAC Analyzer\*
- **70MP0539:** 2mm optical pathlength flowcell
- **70MP0538:** 5mm optical pathlength flowcell
- **70MP0537:** 50mm optical pathlength flowcell

\* Instrument delivered without cell, to be ordered separately (ref. 70MP0539 or ref. 70MP0538 or ref. 70MP0537)