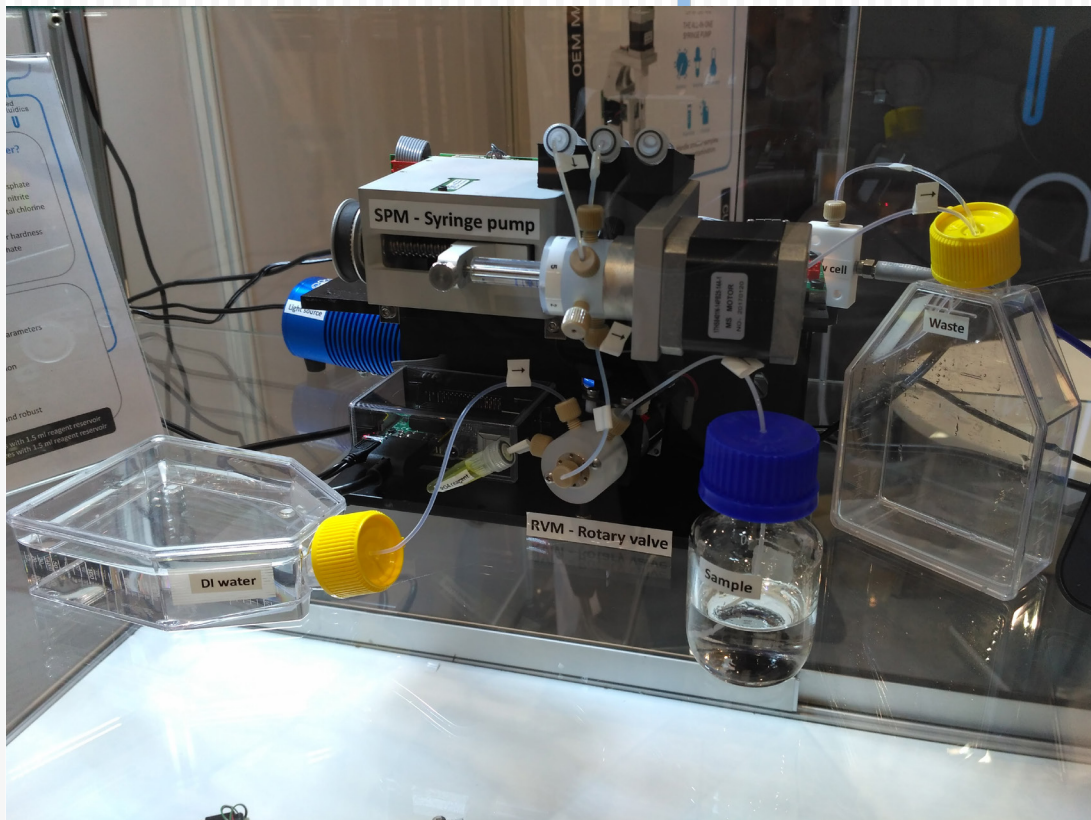


APPLICATION NOTE

ONLINE LIQUID ANALYSIS

Advanced
MicroFluidics
Innovative
automation solutions



WHAT ARE WE DOING?

It is possible to combine our products into more complex automated systems.

Here, an SPM, an RVM and a custom mixing module are used together to prepare samples for online liquid analysis (with chemical reaction). Several parameters can be measured with this setup, without changing the hardware.

This example measures different parameters in drinking or wastewater, such as chlorine, orthophosphate and ammonium, using colorimetric analysis.

WHAT IS MEASURED IN WATER?

It is required to follow closely the evolution of many parameters in water, so as to reduce the risk of people getting sick. Both drinking and waste water are monitored. Below you can find a series of typically measured parameters for each water type.

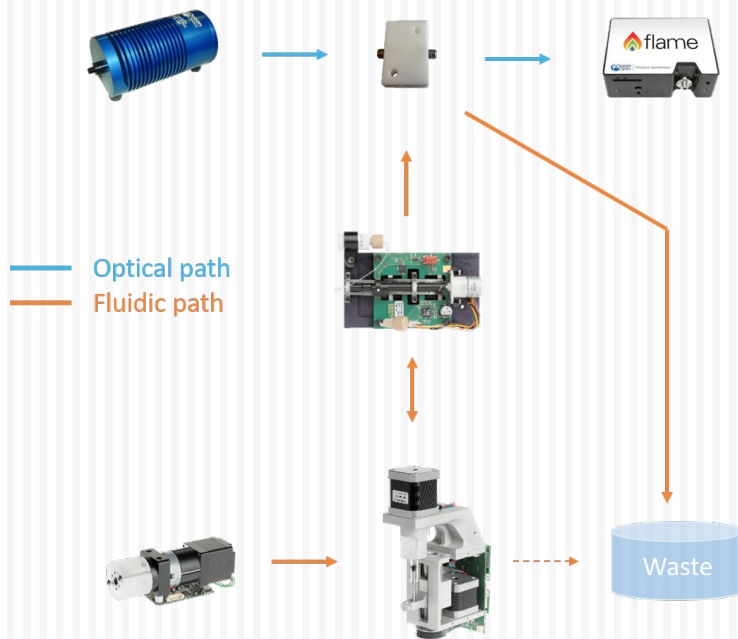
Wastewater

- Orthophosphate
- Nitrate / nitrite
- Ammonium
- DCO
- Total phosphate
- ...

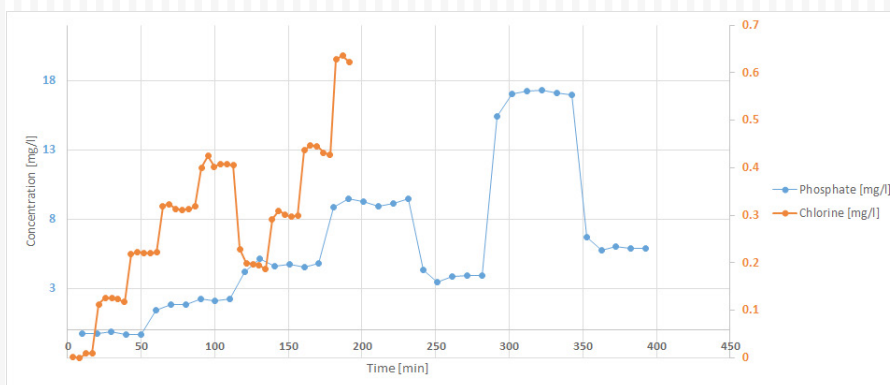
Drinking water

- Orthophosphate
- Nitrate / nitrite
- Free / total chlorine
- Water hardness
- ...

SETUP



RESULTS



WHAT'S IN IT FOR YOU?

- One system for multiple parameters
- Continuous monitoring
- Low reagent consumption
- Low carryover
- Compact design
- Low maintenance and robust

WHAT AM I MEASURING?

In this setup, we measure different drinking water parameters. These are orthophosphate, chlorine and ammonium.

It is of course possible to measure other parameters, depending on the reagents that are connected to the system. One must simply check the chemical compatibility between the reagents.

Free (total) chlorine

Reagent

DPD (2 reagents)

Measurable concentrations

0.02 - 2 mg/L

Sample size

150 uL

Reagent quantity

2.3 uL reagent A

2.3 uL reagent B

Orthophosphate

Reagent

Molybdovanate

Measurable concentrations

0.4- 45 mg/L

Sample size

100 uL

Reagent quantity

5 uL reagent A

Ammonium

Reagent

Nessler reagent (NR)

Mineral stabiliser (MS)

Polyvinyl alcohol (PA)

Measurable concentrations

0.02 - 2.5 mg/L

Sample size

350 uL

Reagent quantity

14 uL NR

1.6 uL MS

1.6 uL PA

CONTACT US FOR MORE INFORMATION

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